UNIVERSITY OF CALGARY
2014 Comprehensive Institutional Plan
FOR THE YEAR BEGINNING APRIL 1, 2014
Prepared for the Government of Alberta
According to the latest QS rankings, the University of Calgary is ranked **first in Canada**, second in North America, and thirteenth in the world amongst universities under fifty years of age.

We are a young academic institution on the rise making significant contributions to the local and provincial economies.

We are a strong Campus Alberta partner, and are excited about our future.
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Eyes High. Our vision of becoming one of Canada’s top five research universities, grounded in innovative learning and teaching and fully integrated with the community, is bold and ambitious.
EXECUTIVE SUMMARY

VISION

*Eyes High.* Our vision of becoming one of Canada’s top five research universities, grounded in innovative learning and teaching and fully integrated with the community, is bold and ambitious. This vision belongs to the thousands of people in our community who shared their aspirations to make our university a truly great university.

The University of Calgary will be a global intellectual hub located in Canada’s most enterprising city. In this spirited, high-quality learning environment, students will thrive in programs made rich by research and hands-on experiences. By our fiftieth anniversary in 2016, we will be one of Canada’s top five research universities, fully engaging the communities we both serve and lead.

We have used this vision, along with the seven priorities outlined in our Academic Plan and three priorities outlined in our Research Plan, to guide all of our actions since the 2011-12 academic year. We have been strategic, disciplined, rigorous, and intentional in our actions. We have an exciting research direction, a renewed focus on innovative and high quality academic program delivery and student and staff experience, a strong financial foundation, positive audit reports, improved service delivery, and improved world rankings. According to the latest QS rankings, the University of Calgary is ranked first in Canada, second in North America, and thirteenth in the world amongst universities under fifty years of age. We are a young academic institution on the rise making significant contributions to the local and provincial economies. We are a strong Campus Alberta partner, and are excited about our future. In this context, we are pleased to present our 2014 Comprehensive Institutional Plan.

INSTITUTIONAL CONTEXT

The University of Calgary is located in Canada’s energy capital, in the country’s most dynamic and enterprising city. We have earned a reputation for courageous thinking and for attracting exceptional people. We have motivated and accomplished staff and students whose talent will guide the University of Calgary to become a global intellectual hub. Our graduates are community leaders. Of our 155,000 alumni, approximately two-thirds live and work in this city. Others are located across 147 different countries, making a difference globally.

Through our *Eyes High* vision and the priorities articulated in our Academic and Research Plans, we laid the foundation for a transformation that will greatly enhance the impact of the institution on our city, our province, and society at large. This transformation will involve all aspects of our educational and research enterprises as well as how we engage with our communities. These changes have positioned the University of Calgary to be a strategic partner for the Government of Alberta. Through this partnership, we will inspire and support lifelong learning, and help foster a post-secondary system that enhances social, economic, and cultural prosperity.
PLAN DEVELOPMENT

This Comprehensive Institutional Plan is a three-year, integrated planning document that satisfies legislated requirements described within the Post-Secondary Learning Act and the Fiscal Management Act. It has been constructed as a series of chapters overseen by a senior team at the university with broad consultation with our internal and external communities. The academic and research priorities outlined in our Academic Plan and Research Plan drive the allocation of capital, human, and financial resources at our institution. Our academic- and research-related chapters are approved by our General Faculties Council, and the full document is approved by our Board of Governors prior to submission to the Ministry of Innovation and Advanced Education.

ENVIRONMENTAL SCAN

Our environmental scan focuses on the trends most relevant to achievement of the overall Eyes High vision, and therefore focuses on the ten institutional priorities contained in our Academic and Research Plans. This perspective enables us to assess and manage or mitigate factors that may enable or prevent achievement of our vision.

Following our assessment of the environment, we have concluded that greater differential investments will be required in future years if we are to achieve our Eyes High vision and maximize the potential we know exists at our institution and within the post-secondary sector. Further investment will create future economic and social benefits for the province.
EYES HIGH — ACADEMIC AND RESEARCH OUTCOMES

Our goal is to create a new brand of academy in which teaching and research interact in novel ways to promote discovery, creativity and innovation. Our academy will create graduates who will be global citizens and leaders of their respective communities, with the ability to think critically and creatively to solve issues of the day. The Academic and Research Plans outline specific annual objectives that we will continue to deliver — the intent of this section in the Comprehensive Institutional Plan is to outline major deliverables under each of our priorities for each year of the next three years.

The University of Calgary is a young and progressive institution in a maturation phase. While we have an excellent triad of documents that guide our strategic vision and priorities, we also have spent considerable effort over the past five years developing and implementing our foundational systems: administrative systems and structures, policies and procedures, and processes and practices. At times, there has been tension between our strategic imperatives and the recognition that the proper foundational systems were not in place to support the particular strategic imperative under development. At other times, the lack of foundational systems has allowed for a wonderful flexibility to move new ideas through a complex system relatively quickly. As in any maturing institution, we need continued work in both strategic priorities and our foundational systems. We want to develop a strong foundational system that mitigates risk, but allows for nimbleness and entrepreneurial and opportunistic changes. Ultimately, we want to achieve symbiotic academic and research excellence through our Eyes High strategic vision, while building a sustainable university that emphasizes operational excellence involving the concept of continuous improvement.

Critical deliverables will include but not be limited to the completion of the Taylor Institute for Teaching and Learning, including staffing model; development and implementation of the Educational Technologies Strategy and the Indigenous Strategy; development and implementation of the strategic plans for all six research themes; the implementation of the International Strategy including the establishment of all six country/regional councils and strategies; further connection to our community through our Alumni Strategy and targeted events, particularly those celebrating our 50th birthday in 2016, and the implementation of an integrated Sustainability Plan. It promises to be a very exciting three years.

We are currently experiencing the largest enrolment in the history of University of Calgary, with a headcount of 34,109 students. Over the past decade the university has expanded access to address strong student demand, resulting in an enrolment that is now 3,006 Full-Load Equivalent (FLE) students above our existing capacity of 25,335 FLEs. The Ministry of Innovation and Advanced Education has estimated that by 2020-21, the University of Calgary will have the largest projected space shortage of all institutions — 4,147 FLEs. We have responded to student demand in the past, but went to a sustainable growth model two years ago to ensure student and staff experience was optimized, suggesting that we were ready to do more, but only with new funding and space. We were pleased that the Ministry recognized this need in Budget 2014 with new enrolment funding. We know that student demand is only expected to increase given the rapid rate of population growth in Calgary and as we continue to increase our national and international reputation. This will place further emphasis on funding required for new enrolment and the priorities outlined within our Capital Plan.
EYES HIGH — CONNECTIVITY

In today’s complex environment, success is often the result of collaboration. Collaboration requires us to connect internally, within Calgary, across the province and country, and through international partnerships with private industry, government, agencies, and other universities who join us in our mission of discovery and innovation. Our vision of connectivity is one in where we have expertise to offer and a willingness to learn from partner institutions, and we acknowledge that unexpected synergies often arise from working together. Within this plan, we highlight examples of partnerships that are not only essential to the achievement of the Government of Alberta’s goals for the post-secondary system, they are key to the University of Calgary fulfilling its mandate. These examples highlight the ways in which we collaborate with Campus Alberta partners, and provincial, national and international partners to deliver collaborative degrees, share facilities and faculty members, and work with the private sector and government to develop educational and research programs.

INTERNATIONALIZATION

Calgary is a global energy and business centre. It is home to the second-highest concentration of head offices in the nation. Our city demands graduates, both domestic and international, who have a global orientation, who are competitive in a global marketplace, and who can adapt to diverse cultural, economic, and governmental environments. The shortage of professionals and skilled labour in the city and province is a key barrier to future economic growth. The recruitment of international students is increasingly recognized as an important element in a broader strategy for attracting highly qualified people to our country. We present the four strategic goals of our international strategy that will serve as a focus for our activity and resources. Through this focus, we will compete more effectively in the global marketplace and will help to address the shortage of professionals and skilled labour in the province. Our international goals are:

1. Increase the diversity of our campus communities;
2. Improve the global and cross-cultural competencies within our campus communities;
3. Enhance opportunities for international collaborations and partnerships in research and education; and
4. Leverage our areas of expertise to engage in international development.

We recognize that international projects and relationships require a significant investment in time and resources. Given finite resources, we undertook an assessment of our current international activity in relation to our academic and research priorities to identify where the most appropriate partnership opportunities existed. The countries/regions that we will emphasize are those where we have solid relationships, where there are strong ties to our academic and research priority areas, and where there are potential connections to industry. The countries/regions of emphasis are China, Germany, Mexico, Middle East, Tanzania and the United States. We will ensure that our efforts are focused within these geographic locations, and that our funds are allocated to support international efforts in these locations.
The University of Calgary has grown from a bare-lab education reserve in the late 1950s to a fully developed, urban, inner-city campus in 2014. With the first of our buildings built in the 1960s, approximately half of the university’s space is over 40 years old. This aging infrastructure includes critical and essential classrooms, laboratories, theatres, administrative support space, and core campus service facilities. While the campus infrastructure has undergone a modest expansion over the past few years, our total space inventory still falls short of what is required to meet program demand, let alone the needs of an expanding and evolving academy. As we continue to grow and evolve, so does our need to maintain, renew, repurpose, and expand our facilities to meet the aspirations outlined within the CIP and our Eyes High strategy. Guided by the priorities articulated within our Academic and Research Plans, we are seeking $667.6 million to support our highest-priority capital projects (Table 1).

### INFORMATION TECHNOLOGY

Our Information Technology (IT) strategy is based on the understanding that technology has a dual responsibility within the academy. Technology must be available, reliable, ubiquitous and innovative. Additionally, technology must support our teaching and research communities. As we move towards our goal of becoming one of Canada’s top five research institutions by 2016, it is clear that strategic investments must be made now with the longer horizon in mind. A need has been identified for ongoing funding to assist the university in the following priority areas (Table 2).

**Table 1 — Capital Priority Projects List, $ Millions (2014 Construction Dollars)**

<table>
<thead>
<tr>
<th>Project Category</th>
<th>Rank</th>
<th>Project Description</th>
<th>Funding Request to Government</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expansion/Repurposing</td>
<td>1</td>
<td>MacKimmie Complex</td>
<td>210.0</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Nursing and Social Work Backfill and Repurposing</td>
<td>34.5</td>
</tr>
<tr>
<td>New Construction</td>
<td>1</td>
<td>Life Sciences Resource Centre</td>
<td>120.0</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Haskayne School of Business Advanced Learning Centre</td>
<td>95.0</td>
</tr>
<tr>
<td>Major Preservation</td>
<td>1</td>
<td>Science A-Phase 2</td>
<td>152.0</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>MacEwan Hall and Student Centre Redevelopment</td>
<td>31.5</td>
</tr>
<tr>
<td>Minor Preservation</td>
<td>1</td>
<td>Deep Utility Repairs (Campus Wide Program)</td>
<td>8.0</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Lab Fume Hoods and Biosafety Cabinets</td>
<td>3.5</td>
</tr>
<tr>
<td>Other Capital Funding Considerations</td>
<td>1</td>
<td>Grant Matching (CFI/LOF)</td>
<td>10.6</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Planning: Campus Master Planning &amp; Initial Project Activities</td>
<td>2.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>667.6</strong></td>
</tr>
</tbody>
</table>

**Table 2 — Information Technology — Base Funding Request to Government, $ Millions**

<table>
<thead>
<tr>
<th>Priority Areas</th>
<th>Funding Request to Government</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT Infrastructure Support and Maintenance</td>
<td>7.5</td>
</tr>
<tr>
<td>Support for Teaching and Learning</td>
<td>2.5</td>
</tr>
<tr>
<td>Support for Research</td>
<td>2.0</td>
</tr>
<tr>
<td>Classroom Technology</td>
<td>1.2</td>
</tr>
<tr>
<td>Support for Administration</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16.2</strong></td>
</tr>
</tbody>
</table>
PLAN FOR FINANCIAL SUSTAINABILITY

Having undertaken significant budget work over the past five years, we were able to weather the budget cuts of Budget 2013, but this was not without cost. We appreciated the more positive news contained within Budget 2014, particularly that related to new enrolment. Calgary is the largest city in Alberta and the third-largest municipality in Canada\(^1\). It is also the fastest-growing metropolitan area in Canada — with a population expected to reach 1.5 million by 2019. As a result of this anticipated growth, the demand for post-secondary education is on the rise in Calgary — in a city that already has the highest number of turn-aways in the province. The Ministry of Innovation and Advanced Education has estimated that by 2020-2021, the University of Calgary will have the largest increase in projected enrolment and also the largest projected shortage in space\(^2\).

The University of Calgary has undergone a dramatic turnaround in the years following the recession. As a result of discipline and focus, we improved our financial situation. This strong foundation served us well following the provincial budget in 2013. Despite significant challenges, the University of Calgary is presenting a balanced budget of $1,218 million for fiscal 2014-15 (Table 3). While a flat budget with significant one-time funding was welcomed in March 2014, the negative impact of the volatility of government funding continues to be a challenge to achieving our academic and research priorities as the university strives to achieve financial sustainability and stability. We do require a nominal increase in our base funding to balance the budget in 2015-16 and 2016-17.

### Table 3 — Consolidated Budget and Two-year Forecast for 2014-15

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Revenue</td>
<td>1,178,066</td>
<td>1,218,013</td>
<td>1,247,703</td>
<td>1,279,333</td>
</tr>
<tr>
<td>Total Expenses</td>
<td>1,178,066</td>
<td>1,218,013</td>
<td>1,247,703</td>
<td>1,279,333</td>
</tr>
<tr>
<td>Excess (shortfall) of revenue over expenses</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

### Table 4 — Resource Implications — Funding Request to Government, $ Millions

<table>
<thead>
<tr>
<th>Priority Areas</th>
<th>Base</th>
<th>One-time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Sustainability</td>
<td>14.3</td>
<td>-</td>
</tr>
<tr>
<td>Information Technology</td>
<td>16.2</td>
<td>-</td>
</tr>
<tr>
<td>Facilities and Maintenance</td>
<td>-</td>
<td>667.6</td>
</tr>
<tr>
<td>Pre-1992 Pension Liability</td>
<td>9.0</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>39.5</strong></td>
<td><strong>667.6</strong></td>
</tr>
</tbody>
</table>

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\(^1\) 2011 Census, Government of Canada, Statistics Canada

\(^2\) 2013 Campus Alberta Planning Resource, Government of Alberta, Innovation and Advanced Education
RESOURCES IMPLICATIONS

Through our planning process, we identified significant challenges that may slow progress toward the achievement of our Eyes High vision. We highlight these challenges because our plan to reduce or mitigate their impact involves the Government of Alberta as a strategic partner in the achievement of goals for the post-secondary education system in Alberta. Guided by the priorities articulated within our Academic and Research plans, we are seeking $39.5 million in new, base (ongoing) funding and $667.6 million to support our highest-priority capital projects.

PERFORMANCE MEASURES

The achievement of the Eyes High vision is underpinned by a commitment to performance measurement and benchmarking. To assess our progress, we selected a set of performance metrics that best capture quality and productivity in education, service and community engagement. These metrics are benchmarked against the top 5 research institutions in Canada and are compared directly to our peer institutions within the U15 in Canada. We believe this set of metrics affords the best available proxy for the value and impact of the University of Calgary to the province of Alberta. Our emphasis on performance measurement relates to a broader change towards a focus on achieving results. This orientation complements the outcomes focus of the Ministry and sets an early standard for results-based budgeting. Our metrics relate to specific outcomes, achievement of which will drive towards the larger goals embodied in the Eyes High vision. As we look towards achieving the goals we have set for our 50th anniversary in 2016, it is worth noting that the data to assess our success may not become available until sometime after that date. We are now in the top 5 in the country in 18 of 40 metrics.
ACCOUNTABILITY STATEMENT

March 15, 2014

Minister

This Comprehensive Institutional Plan was prepared under the Board’s direction in accordance with legislation and ministerial guidelines, and in consideration of all policy decisions and material, economic, or fiscal implications of which the Board is aware.

Original signed by
Chair
Board of Governors

The University of Calgary is a crucial partner for the Government of Alberta in achieving its goals for the post-secondary education system in Alberta.
We have laid the foundation for a transformation that will greatly enhance the impact of this university on our city, our province and society at large.
INSTITUTIONAL ROLE

The University of Calgary is a Comprehensive Academic and Research Institution (CARI) as defined by the Six-Sector Model within the Post-Secondary Learning Act (PSLA). This classification determines its role within the Campus Alberta system. As a CARI, the University of Calgary grants diplomas and degrees, including graduate degrees, and maintains a strong and diverse basic and applied research enterprise that contributes to the advancement and application of knowledge for Alberta and beyond. CARI institutions have as their primary objectives the development of the province’s capacity for research and innovation and the education and training of a workforce that will support a rapidly evolving and increasingly knowledge-based and globalized economy.

The university has laid the foundation for a transformation that will greatly enhance the impact of the institution on our city, our province and society at large. Guided by the Eyes High strategic vision, the Academic Plan and the Research Plan, this transformation will involve all aspects of our educational and research enterprises as well as how we engage with our communities. We believe that these changes have positioned the University of Calgary as a crucial partner for the Government of Alberta in achieving its goals for the post-secondary education system in Alberta.

At the University of Calgary, our formal responsibilities for teaching and learning will be research-informed, research-active and goal-oriented, enabled by systemic institutional structures, specialized teaching knowledge, and sustained professional support (Integrated Framework for Teaching and Learning, June, 2011). We will be accountable for meeting these responsibilities to ensure that our students have a positive and engaging experience.

We will further develop various forms of engaged scholarship in all our academic programs that enable our students to integrate research and experiential learning into their ways of knowing and learning about the world around them. As a result, our students will develop stronger connections to their community. Our curricula will reflect the enterprising spirit of Calgary that instils the importance of applying their newfound knowledge to solving society’s most vexing problems, and teach them how to explore bold new approaches while managing the risks that often accompany such endeavours. Every day, we will show our students the benefits of attending a research-intensive university for their personal growth and their career trajectory.

These goals will be supported through the development of a comprehensive University of Calgary system of research and scholarship in teaching and learning in higher education, one supported by an internal network of teaching research professors, a research-informed teaching professional development unit, and a College of Discovery, Creativity and Innovation.

Guided by the Academic Plan, we are energizing our educational enterprise in a way that integrates closely with the transformation of our research activities. Through innovative educational programs, students learn within a culture of inquiry and overtly interdisciplinary context that prepare them to be creators rather than passive consumers of knowledge in their future careers. Also guided by the Academic Plan and the Research Plan, we have developed and begun implementation of an institutional international strategy.

Our research enterprise has been energized in the last year as we implement our recently developed Research Plan. This plan sharpens our focus on priorities that will 1) match our strengths with opportunities, 2) increase research capacity through people and platforms, and 3) create a dynamic research environment to promote research excellence. These priorities revolve around six strategic research themes in which the University of Calgary is positioned.
to assume national and international leadership. By sharpening our focus on these six themes, we will unleash synergies that will energize our researchers around issues of global relevance and of great importance to our stakeholder communities. Implementation of this plan over the coming years is crucial to realizing our *Eyes High* strategic vision of becoming a global intellectual hub.

**RESPONSIBILITIES**

As a publicly funded post-secondary institution accountable to the Minister of Innovation and Advanced Education under the *Post-secondary Learning Act*, the University of Calgary works to support and promote Campus Alberta, and its goals of a learner-centered, accessible, affordable, quality, and sustainable post-secondary system in Alberta that fosters innovation, entrepreneurship, and collaboration. In doing so, the University of Calgary operates within its approved mandate, letter of expectation, and in accordance with direction provided by the Minister. The University of Calgary is an important partner in supporting and promoting Campus Alberta and its aims to lead the world in inspiring and supporting lifelong learning, and foster a post-secondary system that enhances social, economic, and cultural prosperity. In addition, the University of Calgary is responsible to:

- operate within its current government- and board-approved mandate;
- implement this CIP as approved by the Ministry of Innovation and Advanced Education;
- measure and monitor progress towards key goals and objectives outlined in the *Eyes High* strategic vision, the Academic Plan, and the Research Plan as set out in this Comprehensive Institutional Plan (CIP); and
- make prudent, responsible, and transparent budgetary decisions within available resources.

**MANDATE**

Founded in 1966, the University of Calgary is governed by a Board of Governors, and operates as a public Comprehensive Academic and Research Institution under the authority of Alberta’s *Post-secondary Learning Act*. Education and research at the University of Calgary serve the needs of local, provincial, national and international communities. Through its inquiry-based teaching and research programs and strategic and entrepreneurial partnerships, the university’s faculty, staff and students pursue knowledge, contribute to the development and critique of societal goals, and engage in creativity and innovation in many fields. The university’s goal is to be recognized internationally for the success of its students and for excellence in research, scholarly and creative activity.

The university offers a broad selection of programs of study including baccalaureate, graduate, professional, and research-based master’s and doctoral degrees. It also offers a wide assortment of credit and non-credit diplomas and certificates, as well as non-credit programs of professional development, executive development, and artistic and scholarly activities aligned with the academic expertise of the university. Building on strengths in disciplines in the areas of fine arts, humanities, sciences and social sciences as well as in the professions — including architecture, business, education, engineering, environmental design, kinesiology, law, medicine, nursing, social work and veterinary medicine — the university is committed to offering an experience that provides both disciplinary and interdisciplinary education to its students. A number of the programs it has developed are unique within Alberta.

As an autonomous institution working within Campus Alberta, the university collaborates with other post-secondary institutions in the delivery of collaborative degrees, the use of transfer and articulation agreements, the sharing of facilities and faculty members, and the offering of degree-completion opportunities to students from both rural and urban communities. Working with the private sector and all three levels of government, the University of Calgary takes a leadership
role within Alberta for the further development of educational and research programs in areas designated as strategic academic priorities.

At the University of Calgary, research, teaching and scholarship are interdependent and steeped in the principle of academic freedom. The university encourages, supports and disseminates research, scholarship, innovation, and creative activity in many forms and integrates these activities into both the graduate and undergraduate curriculum. Students and faculty at the University of Calgary conduct basic and applied research at the frontiers of knowledge and transfer knowledge to society, locally, regionally, nationally and internationally. The university stimulates and supports the commercialization of research and innovation for the common good and for the prosperity of the province, the nation and the world. Students and other scholars, including post-doctoral fellows, are attracted to the University of Calgary for the opportunity to refine their research, teaching and mentoring skills.

The development of programs of study and of research partnerships across Alberta, nationally and internationally, extends the university's engagement with the broader community and enlarges the vision of its students, faculty and staff. International partnerships, alliances, and development projects, together with study-abroad initiatives, allow the university to contribute to and benefit from a network of worldwide interactions that enrich the student experience.

The University of Calgary offers a comprehensive set of programs, facilities, and services to provide students with an excellent experience both inside and outside the classroom. The university supports the student experience with a range of services including academic and career advising, student-life programming, health and wellness services, and academic success programs. Community-service learning, cooperative and internship placements, and international exchanges all provide experiential learning opportunities to complement students’ classroom experiences. The university supplements and enriches its face-to-face instruction with communication and digital technologies, library and cultural resources, and both distance education and blended-learning techniques.

The University of Calgary is responsive to the expectations of the communities it serves in the delivery of its educational and research programs. The university contributes in diverse ways to the cultural, social and economic life of the province, through striving for high quality in its graduates, its research, and its service to the community. The University of Calgary is committed to the goals of environmental and financial sustainability, and to making a positive impact on individuals and communities.

* Approved by the Minister of Innovation and Advanced Education on August 12, 2010.
This Comprehensive Institutional Plan is the product of an extensive, iterative consultative process.
This Comprehensive Institutional Plan is a three-year, integrated planning document that satisfies legislated requirements outlined under Section 78(1) of the Post-Secondary Learning Act and Section 14 (2) of the Fiscal Management Act. The Chair of the Board of Governors is required to submit this multi-year plan to the Minister of Innovation and Advanced Education (IAE) by March 15 each year. For 2014, the submission deadline has been extended to April 30.

Launch of the planning process begins in July when we start to review the previous year in light of trends for the upcoming year. In the late fall we meet with Innovation and Advanced Education (IAE) officials to receive feedback on our performance over the previous year and on our early plans for the upcoming year. This feedback is informed by their knowledge of provincial trends expected to influence planning and priority-setting. Helping to inform these discussions are regional profiles and institutional factsheets. Our current CIP reflects the outcome of these discussions.

The CIP has been constructed as a series of chapters overseen by a senior team at the university. The academic and research priorities outlined in the Eyes High: Academic and Research Outcomes chapter serve as a foundation for planning in the capital, budget and resource allocation chapters. The CIP has gone through an extensive, iterative consultative process appropriate to the information in the document. Those chapters that are the purview of General Faculties Council (GFC) (i.e., the Eyes High chapters) have gone through extensive consultation with committees of GFC, including the Academic Priorities and Planning Committee (APPC) and the Research and Scholarship Committee. Those chapters that are the purview of the Board (i.e., the more business-related chapters) have had extensive, iterative consultation through sub-committees of the Board, including the Budget Committee (BC) and the Finance and Property Committee (FPC) along with various administrative committees (Executive Leadership Team, Executive Leadership Team Operations Group, and the Campus Strategic Initiatives Group) (Figure 1). In addition, the CIP has been discussed numerous times at the Provost’s team meetings and Deans’ Council.

Undergraduate and graduate students were highly engaged in the academic and research planning processes, and were members of many of the committees that provided iterative input into the CIP. In its final form, the CIP was recommended for approval by the Finance and Property Committee, and approved by the Board of Governors.

FIGURE 1 — Plan Development (Formal Governance Review and Approval Process)
The University of Calgary has set ambitious goals in our Eyes High strategic plan, and our Academic Plan and Research Plan together serve as the roadmap to those goals. In planning our strategy, it is important to be attentive to the context in which we operate and the elements of our local, provincial, national and international environment that will influence our progress towards those goals. In this brief overview, we organize our discussion of the environment around the seven priorities of our Academic Plan and the three priorities of the Research Plan.

**THE ENVIRONMENT AND THE PRIORITIES OF THE ACADEMIC PLAN**

**TALENT ATTRACTION, DEVELOPMENT, AND RETENTION**

Labour markets in advanced societies are marked by two contrasting trends: persistently high unemployment and fierce competition for talent that transcends national borders. While changes to the nature of modern economies have decreased demand for low-skilled and semi-skilled workers, the competition for those with high-end and specialized skills has intensified. To achieve our goals in education and research, the University of Calgary must succeed in attracting, developing, and retaining the very best students, faculty, and staff. Operating in one of the strongest and most competitive labour markets in North America adds to the challenges facing the University of Calgary.

Canada has seen rapid growth in the post-secondary sector and the younger generation of today is the best educated in our history. Almost 32% of young Canadians aged 25-34 now hold at least the equivalent of a bachelor’s degree. As access to higher education has broadened, young people and their parents are becoming more astute consumers of higher education, and they are increasingly knowledgeable about opportunities in the university sector. Alberta holds a unique position within the country: the province is experiencing more rapid population growth than other provinces and has a younger population. The Calgary region, in particular, continues to grow rapidly and with this growth comes increased demand for university places. At the same time, participation rates in higher education for Alberta are the lowest in the country. For the University of Calgary, this means ensuring that we remain competitive in pursuing the very best students from the local region, the province, and beyond. This will be a continuing challenge as institutions in regions with declining enrolment set their sights on recruiting students from Alberta. The University of Calgary is committed to delivering the highest-quality educational experience to our students, which will make Calgary a destination of choice for the finest students from across Canada and around the world.

Attracting the very best students and building a world-class research university means attracting and retaining the very best professors. Through their research and teaching, they will contribute to the development of knowledge across the broad spectrum of disciplines represented at the University.

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1 Statistics Canada, National Household Survey 2011
2 Canada’s Labour Market Projection Report, 2013
4 Data in CAPR 2013 for the Calgary Service Region show projected growth of 25.1% for the population as a whole between 2012 and 2022. Despite population aging, the number 18-34 is projected to increase by 8.2%.
of Calgary and make the university a magnet for the brightest leaders of the next generation. Attracting such scholars means creating an environment with state-of-the-art facilities, competitive remuneration, and high-quality undergraduate and graduate students, post-doctoral scholars and skilled technical staff that will allow these professors to flourish. As more universities increase their commitment to research and graduate education and, particularly, as competition from universities in the developing world grows as well, Alberta’s universities will need to continuously improve in order to attract the talent needed to succeed.

Competition for talent is not limited to the academic enterprise of the university. A successful university needs a core of committed and highly trained staff to ensure the smooth operation of the institution. This is a particular challenge in Calgary with its very strong local economy and corporate sector. The university competes with the private sector for skilled employees in such areas as finance, human resources, information technology and others. Attracting and retaining talented people is key to achieving university objectives and places more stress on our financial resources than may be the case for other Canadian universities situated in areas with weaker labour markets.

TEACHING AND RESEARCH INTEGRATION

It has long been an article of faith in research-intensive universities that research and teaching are inseparable elements of the academic environment. Integrating teaching and research is an ongoing challenge for universities yet the need to achieve it has never been greater. Providing students the opportunity throughout their careers to be involved in research is of enormous value to the learning process and better positions students to move into the labour force. The integration of teaching and research is also a key element of what a research-intensive university can offer that other forms of post-secondary education cannot. Our goal at the University of Calgary is to maximize the opportunities for our students to immerse themselves in a culture of inquiry and to be fully prepared to take their places in the workforce of tomorrow.

Integrating the research and teaching aspects of the academic environment also offers to faculty members exciting opportunities to engage with enthusiastic young scholars at the first stages of their careers. Since the publication of the Boyer report in 1998, research-intensive universities have struggled with successful implementation of inquiry-based and research-integrated undergraduate education. At the University of Calgary, successful models such as the Bachelor of Health Sciences and Bachelor of Neuroscience programs have been created. The challenge for the University of Calgary, as for other research-intensive universities, is to scale up such models. This is why the recently announced Taylor Institute for Teaching and Learning and the College of Discovery, Creativity and Innovation are integral to our Eyes High strategic vision. In this initiative as in others, the University of Calgary aligns with and supports the priority articulated within the Alberta Research and Innovation Plan to “develop a dynamic and aligned research and innovation system”.

1 Alberta Research and Innovation Plan, 2012
INTERDISCIPLINARITY

There is growing recognition in research-intensive universities of the importance of bringing an interdisciplinary perspective to both teaching and research. Many of the great challenges facing society do not have solutions rooted in a single discipline. Often the most effective solutions emerge at the edges of disparate fields of inquiry where unexpected intersections occur. Student interests are increasingly problem-centred rather than discipline-specific; it is essential to offer scholars the chance to explore their interests by facilitating study in a variety of disciplines and in programs that combine the efforts of instructors from a range of backgrounds.

Research on many topics is increasingly performed in large interdisciplinary teams. In Canada, this has been reflected at both the national and provincial levels in the movement of research funds to team-based projects and the increase in collaborative industry grants relative to those available for individual investigator-based projects.6 Promoting interdisciplinarity is a stated goal of several key funding agencies, such as the Federal Tri-Council agencies (NSERC, CIHR, and SSHRC), which have also placed an increased emphasis on industry partnerships.7 This movement is guided by evidence that interdisciplinary and partnership-based research leads to greater scholarly and societal impact, and thus to greater return on investment for funders. For the University of Calgary, this trend challenges us to better recognize and reward interdisciplinary research, and in particular those contributions made by our faculty members to large interdisciplinary teams.

The importance the University of Calgary attaches to interdisciplinarity is evident in the themes of our Research Plan. For example, our energy strategy takes a wide-ranging approach to the study of the development and use of energy sources. The four central themes of the strategy — discover new sources, extract with minimal environmental impact, export to new markets, and plan for the future — have been developed to include scholars and researchers from a broad range of both natural and social science disciplines who can produce answers to pressing questions regarding our development and use of energy. Similarly, work on the topic of brain and behaviour, another theme of the plan, will draw on the work of scholars in biosciences, medicine, psychology, and education. The Research Plan recognizes that the big questions in science and in public policy require teams of interdisciplinary scholars to take big steps forward.

Another element of the trend towards interdisciplinarity is the development of innovative programs of instruction, such as our undergraduate program in neuroscience, which attracts outstanding students and draws scholars from medicine, science, and psychology to focus on issues related to brain and behavior. Broadening the perspectives of our students will better prepare them for advanced study and research and for success in new and growing industries that are built on melding ideas from diverse disciplines.

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6 Alberta Research and Innovation Plan, 2012
LEADERSHIP

The financial crisis of 2008 brought renewed attention to the importance of developing strong, skilled and ethical leaders for the central institutions of modern societies. The need is especially acute as the ‘Baby Boom’ generation (those born between 1946 and 1965) moves towards retirement and organizations plan for major turnover in their senior ranks. In Calgary, the business capital of Western Canada, the demand for a new generation of leaders will increase in the years ahead.

The University of Calgary seeks to identify and develop the leaders of tomorrow for business, government, research, and the broader public sector. We are putting in place new programs that will allow our students to learn the skills needed to lead while providing them opportunities to move towards positions of leadership. The Canadian Centre for Advanced Leadership in Business, established at the Haskayne School of Business, will transform business education by placing the emphasis on the development of leadership skills throughout the curriculum. Our Scholars Academy seeks to identify future leaders from all programs across campus at an early stage and set them on a path to success in national and international competitions, preparing them for leadership roles in their future careers.

We also focus on improving the leadership skills of our staff to ensure that the full potential of our workforce is being realized. Leadership programs have been developed for deans, associate deans, department heads, as well as management and professional staff and our Alberta Union of Provincial Employees (AUPE) members. We will assess the results of these programs and continue to build and expand opportunities for leadership training.

INTERNATIONALIZATION

Alberta, the Calgary region in particular, is becoming increasingly attractive to international migrants who choose to settle in Canada. Last year alone, more than 40,000 new immigrants relocated to Alberta. At the same time, local employers are scouring the globe for the highly skilled workers needed to sustain and increase their ability to compete. The academic world has been deeply influenced by globalization as well. More and more research is being conducted by international teams and the University of Calgary is visited annually by representatives of universities from around the world anxious to establish new partnerships and exchange programs. Students, especially those from developing countries, search for the best opportunities to learn and prepare for successful careers.

The University of Calgary is committed to competing with institutions around the world to attract the best and brightest to our university and our city. In doing so, we hope to enrich the life of the campus by increasing the diversity of our student body, faculty and staff — a development that can enrich the educational experience for Canadian-born faculty and students. The competition is fierce. All major universities recognize the benefits of diversity and many are putting in place aggressive campaigns to attract international students and scholars. The university and the City of Calgary are well-positioned to succeed in this competition. The strong local economy, the presence of many businesses with an international focus, and a supportive immigration policy will all help us in this competition. In particular, the introduction of the Canada Experience Class as a new route to permanent residence in Canada for international students will be helpful in increasing the proportion of students who remain in the country after completing their studies. The rewards for the city, province, and country can be very substantial. In the face of declining labour-force growth, attracting and retaining high-quality students from around the world will help the province address challenges in the labour market. Often, immigrants excel in their new homes — 30 per cent of American Nobel Prize winners came to the United States as immigrants. Moreover, the evidence shows clearly that the children of highly educated immigrants to Canada do exceptionally well once they enter the Canadian school system. This form of recruitment can produce benefits for generations to come.

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8 Jan Vilcek and Bruce N. Cronstein, “A prize for the foreign-born,” The FASEB Journal. www.fasebj.org/content/20/9/1281.full
CONNECTION WITH COMMUNITY

The University of Calgary is fortunate to be located in one of Canada’s fastest-growing and most successful cities. The increasing shift of economic and political power to the West will fuel continued growth in the future. Great cities are home to great universities, and those universities, in turn, contribute to the richness of the urban environment and heighten the appeal of the city to potential residents and visitors. One of the three foundational commitments of our Eyes High strategic vision is to strengthen our connection to the local community. The most important way we do this is by preparing our students to succeed in Calgary’s booming economy. Over 80 per cent of our graduates remain in the Calgary area after graduation, a figure no other Canadian university can match. The number of research partnerships between the university and both public and private organizations in the city and province continues to grow. The skills and expertise of our faculty, staff, students, and alumni can help the city address crucial challenges related to our rapid growth. The rich cultural opportunities that the campus offers enrich the quality of life for Calgary’s citizens. The development of our downtown campus and, eventually our west campus, will provide further opportunities to invite the community to the campus and strengthen our links to all parts of the community.

SUSTAINABILITY

There is an increasing recognition of the challenges involved in building a sustainable economy and society. Young people, in particular, are very concerned about threats to our future and are looking for ways to build a society committed to sustainable practices. Universities are responding by examining their practices across the full range of their activities and paying greater attention to sustainability issues in the curriculum. As a result, the University of Calgary has identified sustainability as one of the seven priorities of our Academic Plan. The university has established an Office of Sustainability and officially approved a sustainability policy that touches on a wide range of activities in the university, stretching from water use, waste treatment, and energy use to the inclusion of sustainability issues in the curriculum. While universities have often lagged behind the private sector in establishing sustainability audits, the University of Calgary produces an annual report on issues of sustainability on the campus, which informs policy formation and administrative practices.
THE ENVIRONMENT AND THE PRIORITIES OF THE RESEARCH PLAN

The importance of scientific research in modern economies is widely acknowledged not only by leaders in science and education but by business and political leaders as well. Supporting new research, increasing the number of highly qualified personnel, and translating research into innovation that produces new products and services, are seen as key to the growth of modern economies, especially in the wake of the widespread decline in manufacturing in many industrialized nations. Many nations now aspire to build their own version of California’s Silicon Valley—a high-tech incubator linked to leading universities and able to produce goods and services that can be sold around the world.

The rhetoric is not always matched by action, however. OECD data on research spending shows that financial pressures have forced many countries to cut back on their investment in research and development. Canada is a good example of this trend. Total spending on research in the natural and social sciences grew from $24.3 billion in 2001 to $30 billion in 2003.
billion in 2007 but then dipped to $28.1 billion in 2012.\textsuperscript{10} The number of Highly Qualified Personnel (HQP) working in research and development has slipped as well since the beginning of the 2008 recession.

Alberta has seen stronger growth in research spending in the new century, but in the face of tougher economic times, the province has seen a decline in spending since the peak reached in 2009. Moreover, on a per capita basis, spending on research is significantly higher in central Canada than in the western provinces, including Alberta. Spending per capita in Québec, for example, is about 50 per cent higher than in Alberta.\textsuperscript{11}

In spite of the regression that has occurred since the recession, the broader environment still holds much good news for academic researchers. The Government of Canada continues to provide very substantial support for researchers in the academy through a wide variety of programs, including the three federal granting councils, which received increases to their budgets in the most recent budget. The Canada Excellence Research Chairs program and the now long-established Canada Research Chairs program, along with the funds provided through the Canada Foundation for Innovation, are outstanding examples of the commitment of the federal government to supporting research and innovation. The recently announced commitment of the government to engage in public consultation in preparation for an updating of the federal Science, Technology and Innovation Strategy will provide universities with the opportunity to make the case for continued improvement in federal policies supporting high-level research and innovation.

The Government of Alberta also continues to provide major support to university-based researchers through the core support received by the CARI institutions, the investments made by Alberta Innovates, and unique programs such as the Campus Alberta Innovation Program (CAIP) Chairs. We welcome the announcements in the 2014 budget of new investments in social innovation and agricultural research. As the province and the nation continue to recover from the deep recession of 2008, we can look forward to even greater levels of support from our federal and provincial partners in the years ahead.

**MATCH OUR STRENGTHS TO OPPORTUNITIES**

One of the three priorities in the Alberta Research and Innovation Plan is “Focusing on targeted areas: strategically building on a strong base of research.”\textsuperscript{12} This mirrors the commitment in the University of Calgary’s Research Plan to “match our strengths to our opportunities.” The focus on targeted areas is increasingly recognized as a key element to success in building a successful research enterprise. By focusing on selected areas of strength, we can build the critical mass of researchers and the resources necessary to ensure that our work makes a difference. The six research themes identified in our Research Plan reflect both our existing areas of strength and potential impact and the needs of our community and stakeholders. Through focusing our academic community on the central issues within areas such as “energy innovation” or “brain and mental health”, both of which align strongly with provincial priorities, we will build world-class research capacity that will enhance the profile of the university and the province’s research and innovation system. More importantly, the work done under these themes will produce knowledge and translate this knowledge into applications that are of critical importance to the future of our province.

\textsuperscript{10} Barrie McKenna, “Canada slipping in research, OECD warns, The Globe and Mail, September 13, 2012; CANSIM Table 358 — 0001 (figures are given in 2007 dollars).
\textsuperscript{11} Statistics Canada, “Gross Domestic Expenditures on Research and Development in Canada and the Provinces.” (88-221-XWE).
\textsuperscript{12} Alberta Research and Innovation Plan, 2012, p. 5
INCREASE OUR RESEARCH CAPACITY

Our second research priority aligns with another commitment made in the Alberta Research and Innovation Plan: “Build our research capacity.” The strategy has two key components: increasing the supply of Highly Qualified Personnel capable of doing the work needed to advance the frontiers of knowledge and building and maintaining the infrastructure needed to support leading-edge research.

The creation, dissemination and translation of knowledge happens through the work of HQP. In Canada, according to most recently available data, 228,970 research staff were employed in 2011, of which roughly seven per cent were based in Alberta.13 As was noted above, however, the number of research staff as a proportion of the labour force is significantly lower in Alberta than in Ontario or Québec. Recent changes in the funding landscape have made the support for HQP within Alberta more challenging. In particular, the shift away from funding the salaries of academic researchers towards research programs has created challenges in maintaining research capacity while also creating opportunities to advance research programs. The University of Calgary has responded to this challenge through the implementation of a transition plan for investigators formerly funded through the Alberta Heritage Fund for Medical Research.

The University of Calgary’s commitment to increasing Alberta’s complement of HQP included a plan to add 50 stimulus hires of academic staff and 60 postdoctoral scholars in 2013-14. Unfortunately, with the recent budget reductions, it is clear that they will not add capacity, but rather will help to sustain our strength in difficult times. With continued improvement in the economy, we hope to see the support become available to add to our human resources in our areas of strength. The CAIP chairs and Canadian Excellence Research Chairs (CERC) programs will produce tremendous benefits through the recruitment of senior, high-profile investigators who will quickly become foci of intense research activity. The CERC in Materials Engineering for Unconventional Oil Reservoirs, for example, will significantly enhance the energy innovation research theme. By working to develop new methods for in situ extraction that are more efficient and involve less environmental impact, this research will produce knowledge that is of direct relevance to an issue of central importance to Albertans.

Research infrastructure and platforms are also critical to building research capacity. Access to state-of-the-art core facilities is critical to supporting cutting-edge research, particularly in technology-intensive fields. In our Research Plan, the research platforms identified are specifically chosen to support the six research themes. The Canadian Foundation for Innovation has had a tremendous stimulating effect on research in Canada, as has the provincial support for this program, largely through support for research platforms that have benefitted large numbers of research programs, including those at the University of Calgary. Partnering with the province to maintain the competitiveness of universities for such programs nationally is essential for maintaining the currency and impact of our core facilities for research.

One area in which such a partnership promises to pay great dividends is the formation of Alberta Health Services (AHS) and the creation of a medical records database that encompasses all Albertans. This creates an unparalleled resource of four million records that can support population health, public health, genomics, and health services research. Partners must work together so that the promise of the creation of AHS is realized, allowing us all to deliver on the goal of research excellence and return to the community through knowledge translation.

13 Statistics Canada, CANSIM 358-0159 and 358-0160
CREATE A DYNAMIC RESEARCH ENVIRONMENT TO PROMOTE RESEARCH EXCELLENCE

The increased regulatory burden on researchers is a long-term trend. This trend is inescapable because of the need for accountability, both in terms of ethics and management of the funds invested by governments in research. To counter the productivity cost of this trend, universities must invest in systems that help researchers manage the regulatory burden and avoid the painful repercussions of non-compliance. At the University of Calgary, we are well into a multi-year program, the goals of which are to increase accountability, mitigate risk, and ensure compliance. In the past year, a major focus has been to ease the burden of these changes on researchers by increasing the usability and efficiency of our systems for research accounting, HR management, and purchasing and ethics clearance. This is a crucial initiative to maintain a culture of research productivity at the University of Calgary.

Creating a dynamic research environment also involves creating a culture that is supportive of the research aspirations of our scholars. This is achieved through reward and recognition of success in research, and in mentoring and faculty development to ensure success with grant applications and high-impact publications. Multiple factors contribute to faculty research productivity, but effective mentorship, sufficient time and infrastructure for scholarly activities, and effective academic leadership stand out as key determinants. Improvement in all of these areas is implicit in the strategies of the University of Calgary Research Plan.

Finally, the full integration of the educational and research enterprises can also contribute to a dynamic research environment. Involvement of undergraduates and maximal engagement of graduate students will contribute to a dynamic environment by engaging young minds with fresh perspectives and encouraging our scholars to re-examine their ideas through teaching. The integration of teaching and research is a key priority within the Academic Plan that is echoed within the Research Plan, as doing this effectively will transform our academy in ways that benefit all aspects of our mission.

CONCLUSION

The recession that began in 2008 was the most severe since the Great Depression. GDP declined, unemployment increased sharply, and government deficits expanded rapidly. As we enter 2014, the economies of countries around the world are improving. Canada’s GDP has not only rebounded but surpassed the level achieved prior to the onset of the recession. Alberta’s economy grew by 3.9 per cent in 2012 and continued though somewhat lower growth is expected for 2013 and 2014. With an employment rate of 70 per cent in 2012, Alberta led the nation. The province and the country appear prepared to move forward and Alberta’s universities have high hopes that this renewed growth will support greater investment in post-secondary education and research. The University of Calgary has built a plan to move into the top tier of Canada’s research-intensive universities. The effects of recession and government cuts forced some difficult decisions and slowed our progress, but the university is ready to move forward. We have the plan and the people in place to continue our work of creating a great university. We look forward to partnering with our government and our community to meet the goals of our Eyes High strategic vision.
The University of Calgary has set ambitious goals in our *Eyes High* strategic plan, and our Academic Plan and Research Plan together serve as the roadmap to those goals.
EYES HIGH — ACADEMIC AND RESEARCH OUTCOMES

INTRODUCTION

The University of Calgary, established in 1966, is highly regarded in relation to its peer institutions of a similar age. In the most recent world university rankings of universities established in the last 50 years, the University of Calgary was ranked first in Canada, second in North America, and 13th in the world by Quacquarelli Symonds (QS) (QS World University Rankings 2014: Top 50 under 50).

Given that one of the three major themes in the 2013-16 Government of Alberta strategic plan is securing Alberta’s economic future, it is important to note that the University of Calgary, beyond its reputational achievements, contributes an annual economic impact of $7.92 billion (2011) to the economy of the Calgary region. Using the methodology developed by the University of British Columbia, institutions of similar age, such as the University of Victoria and Simon Fraser University in British Columbia, have impacts on their local economies of $3.2 billion and $3.6 billion, respectively. The University of Calgary is a young academic institution on the rise making significant contributions to the local and provincial economies.

The bold Eyes High strategic vision for the university was unveiled in October 2011, and this was rapidly followed by the development of detailed roadmaps to lead us to that vision — a new institutional Academic Plan (January 2012) and Research Plan (June 2012). Collectively, these three documents establish the overarching vision and high-level priorities that will guide human, financial, and capital resource allocations for the foreseeable future as the University of Calgary continues to enhance student, faculty and staff experiences and outcomes. These documents were produced through broad consultative processes with our university communities. This chapter summarizes the plans going forward and highlights our major academic and research priorities and deliverables over the next three years. The focus on deliverables is in line with the Government of Alberta’s policy focus and priority on outcomes.

The Eyes High document outlines the following vision for the University of Calgary:

“The University of Calgary will be a global intellectual hub located in Canada’s most enterprising city. In this spirited high-quality learning environment, students will thrive in programs made rich by research and hands-on experiences. By our 50th anniversary in 2016, we will be one of Canada’s top 5 research universities, fully engaging the communities we both serve and lead.” (Eyes High Strategy, 2011).

We will realize our Eyes High vision by focusing on three foundational commitments: 1) sharpening
the focus on research and scholarship; 2) enriching the quality and breadth of learning, and 3) fully integrating the university with the community.

The development of our institutional Academic Plan and Research Plan was co-led by the provost and vice-president academic and the vice-president research. It was determined that establishing the academic priorities of the institution was key — these priorities then informed the development of the Research Plan. The development of both documents involved extensive consultation processes. The vision and priorities established at the University of Calgary are designed to show our community the benefits and rewards of teaching, learning and research in an environment where discovery, creativity, and innovation are central to the mission. The major roles of teaching and research at our institution are seen as symbiotic and integrated, rather than as separate entities.

At the University of Calgary we believe that one of our great assets is our city, and the entrepreneurial and can-do spirit that is associated with Calgary. Never was this spirit more tested than during the 2013 Flood. The relatively rapid recovery demonstrated in Calgary (e.g., hosting the Stampede 12 days following the flood) was a remarkable testament to our community spirit.

We live in a vibrant and creative city that was named one of the top five most livable cities in the world by The Economist in 2012. Calgary is known as the energy capital of Canada, comprising most of the country’s $80 billion energy sector and providing the university with unparalleled access to corporations, decision-makers and technology. Calgary is diverse and is one of the fastest-growing metropolitan centers in Canada. Calgary recently took the top spot in three of MoneySense magazine’s 2013 rankings of Canadian cities: best overall city, best large city, and best place to raise children. In FDI magazine’s 2013 rankings of North American cities, Calgary was ranked second in large North American Cities of the Future in business friendliness, third in economic potential, and second overall. Calgary also shared (with the Niagara region in Ontario) the title of Cultural Capital of Canada for 2012. Calgary is not only a cultural capital, but we also rank ahead of Toronto, Vancouver and Montréal in a new study ranking the top 12 information and communications technology clusters in North America. We strive to be a reflection of the community in which we live.

Another great asset is being located in the province of Alberta with its enterprising spirit, wealth of natural resources, and history of strong economic growth over the last several decades. The province has benefitted from visionary leaders who furthered the development of the oil and gas sector in Alberta and who started the Alberta Heritage Savings Trust Fund to ensure that the development of our non-renewable energy sources produces long-term benefits for Albertans. As a consequence of this visionary leadership, we have an internationally recognized research and innovation system — one that affords opportunities for research throughout the post-secondary sector in a way that is unique to Alberta. We also have a unified provincial health care system that provides unprecedented collaborative research opportunities and access to facilities and data for approximately four million patients, all of this with the goal of improving health and health care services. Alberta is a Canadian leader not just in natural resources but also in agriculture (grain and livestock), food-related industries, and technology and bio-industries.

The University of Calgary aspires to enhance its role as a great university, an institution with global reach located in a dynamic city in an innovative province. We have already achieved excellence in many key areas of teaching and research, and we will continue to develop our culture of discovery, creativity, and innovation. Our students will be enriched by new ideas and will become actively engaged in creating and discovering, benefitting from leading-edge research woven into their curricula. Graduates who are critical thinkers are the hallmark of a great university. Our faculty, who are prominent in their respective disciplines, will facilitate engaging learning opportunities for our students. By addressing important societal issues in their engagement with our curriculum, our students will develop new solutions and applications that will open avenues for innovation that will benefit our many communities.
Enterprise is fostered where discovery, creativity and innovation are not hampered by traditional boundaries. As a member of the Comprehensive Academic and Research Institutions (CARI) sector under the Campus Alberta Framework of the Ministry of Innovation and Advanced Education, the University of Calgary supports a tremendous range of expertise and has a distinctive identity. We tackle problems of high societal and global relevance for which solutions often emerge from intersecting fields of inquiry. We also know the best solutions emerge from strong and fundamental disciplinary contributions combined with productive working partnerships: these often include industry, government, and community groups most affected by the problem. The University of Calgary will become a global intellectual hub by identifying critical problems of local, national, and international relevance, bringing disciplinary strengths together with community and industry partners where required to create new knowledge, and translating this knowledge into real-world solutions. The spirit of discovery and innovation will permeate our classrooms, where students engage and collaborate with experts who are addressing critical issues.

THE ACADEMIC PLAN

Through our consultation process to develop the Academic Plan we identified seven major academic priorities, along with key areas of foundational support that must be addressed for the University of Calgary to achieve our Eyes High vision. These priorities are helping to guide our actions and define the nature of our discoveries, creative endeavours, and innovations (Figure 2). These priorities are:

**FIGURE 2 — Academic Priorities**

- Talent Attraction, Development and Retention
- Teaching, Research and Integration
- Interdisciplinarity
- Connection with Community
- Internationalization
- Leadership
- Sustainability

**Foundational Support**

- IT Infrastructure
- Facilities
- Research Support
- Library Collections/Services
- Support Staff
- Shared Services
- Fundraising Support
- Communications/Branding/Reputation
In the Academic Plan, each priority was described, with key goals, strategies and tactics identified for each priority. We highlight efforts towards achieving many of these key goals over the next three years in this chapter.

As a result of a focus on these academic priorities, graduates from the University of Calgary will have experienced high-quality, engaging academic programs and will be thoughtful, communicative citizens and leaders of their respective communities, with the ability to think critically and creatively to solve issues of the day. They will understand the value of collaboration and partnerships, and will be used to working with others who are traditionally considered ‘outside’ of their fields of expertise. They will also appreciate different cultures and see value in diversity — of opinion, thought, gender, ethnicity, and culture. They will appreciate the diversity of life and limited resources available on Earth, and work and live to create a sustainable future. Importantly, they will recognize that the knowledge they have gained during their time at the University of Calgary will change with new discoveries, and as a result they will be life-long learners (University of Calgary Academic Plan, 2012).

Graduates from the University of Calgary will be thoughtful, communicative citizens and leaders of their respective communities.
THE RESEARCH PLAN

In developing the Research Plan we considered the academic priorities identified in the Academic Plan, along with provincial, national, and global demands for new discoveries.

We recognize that our talented people are our greatest resources, and that contributions from individual scholars are paramount for our success. We will support excellence in scholarship across the academy and champion research priorities established by faculties. However, through the Eyes High vision established in 2011 and the lens of our Academic Plan, we have committed to increase our research impact in priority areas where we have recognized strength and leadership, where we can highly integrate teaching and research, where research outcomes and translation promote sustainability, where interdisciplinary contributions can lead to major advances, and where we can have the biggest impact on the communities we serve. Our objective is not only to compete with the best universities ‘scholar-by-scholar’ or ‘program-by-program’, but also to differentiate our institution in the upper echelon of universities. Therefore, while putting together our institutional Research Plan we sought the ‘strategic sweet spot’ that aligns our areas of strength with areas of need locally, provincially, nationally and internationally where the University of Calgary can make a distinctive contribution. We did not simply look internally to make decisions regarding our priorities. We paid attention to the needs of society and signals from governments in defining our priorities for discovery, creativity, and innovation, which will help position us for success by “fully engaging the communities we both serve and lead.”

(University of Calgary Research Plan, 2012, p. 3)

Based on our consultations, our Research Plan identifies three major priorities (Figure 3).

Within the priority of “matching strengths with opportunities,” we identified research themes — areas where we matched our areas of strength (push) with areas of unmet need in society for new knowledge, creative expression, and innovation

**FIGURE 3 — Research Priorities**
Our research themes (Figure 4) are characterized by several important features:
1) We are leaders in the area, as demonstrated by a local critical mass of expertise, and we have attained national or international prominence, as measured by relevant output metrics;
2) We are an essential hub in provincial, national, or global research networks for the area;
3) We have built strong industrial or community (philanthropic) partnerships in the area; and
4) Our advances benefit from enabling research platforms and improving these platforms (Research Plan, p. 9).

Over the next three years we will continue to develop thought leaders and define an academy of scholars in each of the remaining five research themes, as we have done with energy innovations this past year. By consolidating our capacity in priority areas we will be able to compete with the best in the world for new opportunities, new faculty, and new students.

Research platforms represent organized scholarly activities, sometimes linked through infrastructure or critical mass of expertise, that are truly crosscutting and catalysts in the creation or application of new knowledge, thereby increasing our research capacity. We have identified seven major research platforms (Figure 4). Please refer to our Research Plan for more descriptive information on each platform.

Our research platforms are typically created, or supported, by highly accomplished interdisciplinary teams, involving cutting-edge facilities or networks in which the University of Calgary is providing provincial, national, or international leadership. They are platforms that enable great accomplishments for many of our strategic areas of research, and also contribute to other emerging areas of strength across our university. They also contribute strategically to and/or provide unique components of Campus Alberta initiatives. By identifying our research platforms of international prominence, we avoid unnecessary duplication in core facilities across the province and provide cutting-edge contributions to provincial initiatives (Research Plan, 2012).
KEY OUTCOMES

Our goal is to create a new brand of academy in which teaching and research interact in novel ways to promote discovery, creativity and innovation. Our academy will create graduates who will be global citizens and leaders of their respective communities, with the ability to think critically and creatively to solve issues of the day. The previous two sections outlined the key priorities for the Academic Plan and the Research Plan — in developing our expected outcomes for each year we knit the priorities of both plans together. The Academic Plan and Research Plan outline specific annual objectives that we will continue to deliver — the intent of this section is to outline major deliverables under each of our priorities for each year. Thus, it is not all-inclusive of outcomes we expect in any given year. When we achieve a key outcome in 2013-14, we plan that this outcome will have implications for work and outcomes in the following years and, for the sake of brevity and clarity, we do not present every subsequent outcome in years 2014-15 and 2015-16. The University of Calgary has regular quality assurance reviews for units (overall unit reviews, curricular reviews, and graduate program reviews), accreditation reviews for professional programs, and leadership reviews. We have included the timing of only our major unit reviews, and not of other types of reviews, as we consider this to be the regular business of a well-run institution.

The University of Calgary is a young and progressive institution in a maturation phase. While we have an excellent triad of documents that guide our strategic vision and priorities, we also have spent considerable effort over the past five years developing and implementing our foundational systems: administrative systems and structures, policies and procedures, and processes and practices. At times, there has been tension between our strategic imperatives and the recognition that the proper foundational systems were not in place to support the particular strategic imperative under development. At other times, the lack of foundational systems has allowed for a wonderful flexibility to move new ideas through a complex system relatively quickly. As in any maturing institution, we need continued work in both strategic priorities and our foundational systems. We want to develop a strong foundational system that mitigates risk, but allows for nimbleness and entrepreneurial and opportunistic changes. Ultimately, we want to achieve symbiotic academic and research excellence through our Eyes High strategic vision, while building a sustainable university that emphasizes operational excellence involving the concept of continuous improvement. In that spirit, the outcomes listed in the following section are strategic in nature, and when purely administrative items are identified as outcomes, they are considered to be of key strategic importance to the institution. We are in a position to plan and undertake many of these initiatives because of the significant work that has been done at the University of Calgary over the past five years to create a sound financial foundation from which to advance our vision. The provincial budget will affect progress on some of these initiatives. These are outlined in the financial chapter.
PRIORITY: TALENT ATTRACTION, DEVELOPMENT, AND RETENTION

KEY OUTCOMES FOR 2013-14:

WE HAVE:

- started the First-year Scholars program for high-achieving students entering from high school. The program provides support and resources for these top students and prepares them for application to the Scholars Academy as well as for major scholarships and awards;
- launched the Leader in Health Sciences scholarships. This award — the first of its kind in Canada — is valued at $15,000 per year for four years (total $60,000) for study in the Faculty of Medicine’s Bachelor of Health Sciences (BHSc) undergraduate program. It includes guaranteed admission to the University of Calgary’s medical school provided the student meets MD program admission criteria. The scholarship is designed to produce more clinician-scientists — physicians who have a strong background in research training that will enable them to ask and address clinically important research questions, the answers to which will directly impact the health and well-being of Canadians. This scholarship will help to attract and retain top students seeking an inquiry-based education enriched with research experiences that inspire creative and critical thinking while developing a strong foundation in research skills;
- begun the construction of additional student residence capacity in order to attract more students from beyond our typical catchment area, including accommodations for graduate students;
- created an innovative graduate professional skills development program called MyGradSkills;
- hired 85 new post-doctoral scholars through our stimulus hire initiative, and 34 of 50 new assistant professors (the remaining hires should occur by July 1, 2014);
- launched a new Eyes High doctoral recruitment scholarship to increase PhD enrolment, focusing on areas of strategic research strength for the university; and
- used the outcomes of the second employee engagement survey to develop key initiatives to engage all staff, thereby creating a more positive environment that encourages retention.

WE WILL:

- review our international recruitment strategies for undergraduate students;
- consult with other universities in the prairie region about their experiences in developing Indigenous strategies;
- complete the recruitment of the University of Calgary’s first CERC Chair in New Materials Engineering for Oil Sands Extraction. This $25 million ‘ecosystem’ of energy research will vault our university onto the world stage of novel in situ extraction approaches that will immediately apply to the oil sands but will be exportable to other areas around the world (e.g. China);
- hire the first University Teaching and Learning Chair and academic director for the Taylor Institute for Teaching and Learning (Ti). We aim to have the individual start July 1, 2014; and
- develop and implement a gender-equity pay strategy in three departments that have been identified as having pay equity issues.

KEY OUTCOMES FOR 2014-15:

WE WILL:

- develop an Indigenous strategy in conjunction with our faculties, the University of Calgary Native Centre, and the wider Indigenous community that supports teaching, learning, research and the integration of the university in the community as it relates to Indigenous populations;
- re-examine recruitment and retention at the undergraduate and graduate levels to ensure that we are progressing towards our international targets and that we have a diversity of international students;
- develop focused recruitment strategies for international, Indigenous and sponsored graduate students;
- augment MyGradSkills by developing and introducing entrepreneurship training;
- analyze Canadian Graduate and Professional Student Survey (CGPSS) and National Survey of Student Engagement (NSSE) results and develop a strategy to enhance student experience;
- develop a second round of 50 post-doctoral scholar hires;
- re-instate the University Professor Program to honour high-performing academic staff;
- continue to explore opportunities for research chairs in our research theme areas with a variety of organizations, including the Alberta Innovates corporations;
- create a series of named chairs and professorships through philanthropic donations;
- contribute to a positive environment on our campus through a number of initiatives including engagement activities and our Respect in the Workplace program;
- fully implement the Office of Diversity, Equity, and Protected Disclosure to promote positive practices in equity and diversity;
- review and improve our policy for Chairs, including standards for funding, salaries being funded out of Chair allocations, selection processes, etc.; and
- implement an early-alert program to assist in the identification of students at academic risk. This will help in the allocation of academic support services and resources to students who need additional help to succeed in their studies.

**KEY OUTCOMES FOR 2015-16**

**WE WILL:**

- begin implementation of the Indigenous strategy. As part of this strategy, increase First Nations, Métis, and Inuit learner populations through a special recruitment strategy;
- review our Aboriginal Student Access program and Aboriginal Admissions policy;
- deliver entrepreneurship training as part of MyGradSkills;
- develop the Golden Anniversary Chairs program, one for each faculty, to recognize superb professors; and
- enhance support for early-career academics through the TI.
PRIORITY: TEACHING AND RESEARCH INTEGRATION

KEY OUTCOMES FOR 2013-14

WE HAVE:

- developed and implemented a university-wide Teaching and Learning Grants program designed to provide resources to integrate research evidence in teaching practice, to generate new knowledge about teaching and learning at the University of Calgary, and to support the dissemination of the results of that work to benefit others;

- developed and implemented a new University of Calgary Teaching Award program that recognizes excellence in diverse learning contexts, by individuals and teams, and through curriculum design and educational leadership. The first university-wide celebration of teaching excellence will be held in 2014;

- struck a learning technologies task force that has been meeting since July 2013 with an expected report in June 2014. The outcome of this task force will be a research-informed learning technologies strategy for the university;

- completed an academic advising review and implemented a new model of academic advising on campus;

- developed quality-assurance guidelines for unit reviews, graduate program reviews, and curricular reviews. Unit review and graduate program review processes were implemented in 2013. Curriculum review processes will be implemented beginning in July, 2014;

- completed unit reviews of Nursing, Law, and University of Calgary Qatar (UCQ);

- co-hosted with Bow Valley College the 2014 Educational Developers Caucus Conference, the preeminent national conference of post-secondary educational development
Our goal is to create a new brand of academy in which teaching and research interact in novel ways to promote discovery, creativity and innovation.
KEY OUTCOMES FOR 2014-15

WE WILL:

• provide more comprehensive teaching and learning skills development opportunities for graduate students through a partnership of the MyGradSkills program and the TI;

• create a task force to examine the graduate student experience, analyzing 2013 CGPSS data, and develop an implementation plan for the recommendations (December 2014);

• implement a comprehensive framework for assessing teaching effectiveness across our academic community;

• complete unit reviews of Engineering, Social Work, Medicine, and Science;

• bring together colleagues who have been recognized with teaching awards to create a Teaching Academy within the TI. The group will share their teaching and learning expertise though mentoring and contributions to TI programming; and

• prepare for the opening of the TI in January 2016. In order for this to occur, we will:

• enhance the Scholarship of Teaching and Learning Group of the TI and develop key goals and objectives for this group during the 2014-15 year;

• ensure programming pieces of the three groups (Scholarship of Teaching and Learning, Educational Development, and Technology Integration) for the TI are fully operational and integrated for the opening of the institute in January 2016;

• host the first integrated University Teaching and Research Awards celebration by March 2015;

• implement the use of the curriculum alignment (mapping) tool from the University of Saskatchewan to enable evidence-based curriculum reviews, where appropriate; and

• expand the funding to the successful Program for Undergraduate Research Experience (PURE) to increase the number of students who can be funded to participate in learning how research projects are developed and conducted and how research results can contribute to new knowledge and solve problems.

KEY OUTCOMES FOR 2015-16

WE WILL:

• establish an annual Indigenous research symposium with an international guest speaker (by June 2015);

• as part of a revised university grading policy, develop a standardized grading scale for the university, in consultation with the academic community;

• complete unit reviews of Education, Libraries and Cultural Resources, Continuing Education, and Veterinary Medicine;

• ensure that the College of Discovery, Creativity, and Innovation is fully functional by September 2016, with grand challenges courses available at different levels of undergraduate programming;

• ensure that the experiential learning office of the TI is fully operational by September 2015; and

• complete the redevelopment of the Nickle Arts Museum site to create the TI. Projected completion for the building and the official opening is scheduled for November 2015.

PRIORITY: INTERNATIONALIZATION

Please refer to chapter 8 for a discussion of our overall internationalization strategy and expected outcomes over the next 3 years.
PRIORITY: INTERDISCIPLINARITY

KEY OUTCOMES FOR 2013-14

WE HAVE:
- developed an energy strategy, and are in the process of developing strategies for each of our research themes. For each of our research themes and platforms, we are calling together scholars from across campus to pool their expertise and identify topics within the theme where the University of Calgary has the potential to make major advances. Each confederation of scholars is self-organized through the assistance of a thought-leader who guides the development of the research strategy for the group;
- continued development of the College of Discovery, Creativity, and Innovation; and
- ensured that the physical design of the TI encourages interdisciplinary collaboration.

WE WILL:
- increase support for high-quality interdisciplinary programs and research by creating a framework to recognize and reward work to create and sustain interdisciplinary academic programs and research (2013-14 and beyond); and
- begin development of an interdisciplinary Northern/Circumpolar strategy.

KEY OUTCOMES FOR 2014-15

WE WILL:
- complete the development of an interdisciplinary Northern/Circumpolar strategy;
- begin the development of an interdisciplinary Indigenous strategy (see Talent Attraction, Development and Retention);
- develop models for interdisciplinary units that draw on the work of multiple disciplines, creating shared intellectual and physical spaces between faculties. We will begin with developing models for major interdisciplinary institutes by December 2014;
- develop a policy to guide the development and operations of centres and institutes; and
- complete the development of an academic sustainability plan by June 2014. This plan will be an exemplar of interdisciplinary synergies, and developed by the Academic Committee on Sustainability, and will inform the overall Institutional Sustainability Plan.

KEY OUTCOMES FOR 2015-16

WE WILL:
- complete and implement the model for the College of Discovery, Creativity, and Innovation in the TI.
PRIORITY: LEADERSHIP

KEY OUTCOMES FOR 2013-14

WE HAVE:

- held a campus-wide student leadership conference to introduce any interested student to key concepts of leadership development and inspire further participation in student leadership initiatives on our campus and in the community;
- developed, through the Leadership and Student Engagement office, a suite of non-credit leadership certificates in personal, team, community and organizational leadership recognized on a student’s co-curricular record;
- developed, through a collaboration between the Native Centre and Career Services, an Aboriginal Relations Leadership certificate. This non-credit participatory certificate is designed for undergraduates, alumni or working professionals who may embark on career opportunities that interconnect with Aboriginal communities;
- created an Academic Leadership Academy (ALA) advisory group;
- offered an academic leadership program for two distinct groups of senior academic leaders: a series for deans and another series for department heads and associate deans;
- developed a Management and Professional Staff (MaPS) career framework and compensation framework to build capacity for leadership in the university community;
- launched U Lead, a one-year experiential leadership pilot program for MaPS staff, developed in partnership with Continuing Education. The program content is based on the needs expressed in the July 2012 leadership survey of MaPS staff;
- Launched U Fundamentals, a leadership program for MaPS staff that will provide an overview of their administrative role and the supports available to them to ensure success; and
- Launched a new professional development program for post-doctoral scholars.

WE WILL:

- continue to offer focussed and distinct academic leadership programs for senior academic leaders;
- continue to refine, develop, and expand leadership activities for undergraduate students through the Leadership and Student Engagement program;
- provide targeted professional development activities that develop the leadership potential of academic staff who are mid-career and have potential to take on leadership roles (on-going); and
- fully implement the Management and Professional Staff (MaPS) career framework by March 2014.

KEY OUTCOMES FOR 2014-15

WE WILL:

- ensure all leadership programs for staff are run from the staff development office of HR in conjunction with the Provost’s Office to ensure consistency in programs;
- explore establishing a graduate leadership college in the new graduate student residence that is scheduled to be open in 2015-16; and
- develop a more comprehensive strategy for the Academic Leadership Academy, and expand offerings to different groups on campus.

KEY OUTCOMES FOR 2015-16

WE WILL:

- implement an Eyes High Leaders Residency program for campus; and
- implement the more comprehensive strategy for the Academic Leadership Academy.
Our academy will create graduates who will be global citizens and leaders of their respective communities.
PRIORITY: SUSTAINABILITY

KEY OUTCOMES FOR 2013-14

WE HAVE:

- identified academic sustainability champions and student representatives to sit on the Academic Committee on Sustainability;
- hired an academic coordinator for sustainability;
- begun developing an academic sustainability strategy;
- hosted a sustainability awareness week and a suite of student outreach initiatives over the full academic year;
- attained a Gold rating under STARS (Sustainability, Tracking, Assessment & Rating System), one of only two Gold ratings in Canadian post-secondary education institutions; and

WE WILL:

- engage students, faculty, and staff in developing a co-curricular sustainability strategy;
- engage students, faculty, and staff in developing the next phase of the operational sustainability strategy; and
- develop our 2014-2019 Institutional Sustainability Plan for release in October 2014. This will include the integration of academic, co-curricular, and operational sustainability strategies.

KEY OUTCOMES FOR 2014-15

WE WILL:

- implement the academic sustainability strategy (beginning in Fall 2014);
- implement the new co-curricular sustainability strategy to further enhance student engagement, leadership skill development, and experiential learning for sustainability;
- develop an enhanced campus and community engagement strategy for sustainability;
- continue to expand operational sustainability strategies to infuse sustainability into the campus experience and to serve as a community leadership model;
- continue enhancing the Urban Alliance, and collaborating with community partners to advance the imagineCALGARY vision;
- develop a funding strategy to establish a Centre for Sustainability Leadership. The Centre may include support programs such as Emerging Leaders in Sustainability and Campus as a Learning Laboratory for Sustainability Innovation;
- begin identifying prospective private-sector partnerships to utilize University of Calgary campuses as innovation hubs for the development and commercialization of sustainability-related technologies and practices; and
- approve the Institutional Sustainability Plan (October 2014).

KEY OUTCOMES FOR 2015-16

WE WILL:

- launch an interdisciplinary certificate in sustainability option;
- establish a Centre for Sustainability Leadership to support programs for Emerging Leaders in Sustainability, and a Campus as a Learning Laboratory for Sustainability Innovation;
- implement the identified priorities of the Institutional Sustainability Plan (including academic sustainability strategy, the co-curricular sustainability strategy, and the operational strategy); and
- advance prospective private-sector partnerships to utilize University of Calgary campuses as innovation hubs for the development
and commercialization of sustainability-related technologies and practices; and
- complete our third STARS assessment and publish our third biennial sustainability report.

**KEY OUTCOMES FOR 2013-14**

**WE HAVE:**
- completed the development of an energy research strategy;
- obtained funding from national organizations to support the implementation of the energy research strategy in the area of policy research; and
- established a new Applied Research Institute that will tackle problems of societal and industrial relevance with cutting-edge discoveries and applications.

**WE WILL:**
- produce a research strategy for two of our priority themes — Brain and Mental Health, and Infections, Inflammation, and Chronic Diseases;
- develop the “confederation of scholars” from across campus for each of the remaining strategic research themes (Engineering Solutions for Health; Human Dynamics in a Changing World; New Earth-Space Technologies);
- test our strengths and our research directions by hosting symposia in three areas during 2013-14 (Brain and Mental Health, Energy Innovations, and Human Dynamics in a Changing World); and
- hire research catalysts for all strategic research themes and platforms by March 2014. The roles of the catalyst are determined by the needs of scholars in each research theme that are at different stages of development. In some groups, for example, the catalyst could be a leader from outside the university to assist in developing and assessing the research strategy for the group.

**KEY OUTCOMES FOR 2014-15**

**WE WILL:**
- use our Analytics and Visualization research platforms to lead Alberta in attracting industry partners to develop big-data applications in health and energy. The approach could rely on the creation of new applied research institutes;
- launch research strategies for Engineering Solutions for Health; Human Dynamics in a Changing World; New Earth-Space Technologies;
- secure new national research awards on the grand challenges posed in our energy research strategy, and our brain and mental health research strategy;
- deliver a new research strategy for the Arctic Institute of North America, and increase partnerships with circumpolar nations on arctic research; and
- launch international collaborative research initiatives in unconventional oil and gas, and brain and mental health.

**KEY OUTCOMES FOR 2015-16**

**WE WILL:**
- secure new national research awards on the grand challenges posed in our research strategies of New Earth-Space Technologies, Engineering Solutions for Health, and Human Dynamics in a Changing World;
- test our strengths and our research directions by hosting symposia in two areas (Human Dynamics in a Changing World and New Earth-Space Technologies); and
- launch a university-wide survey and discussion on emerging strengths that could be new strategic research priorities.
PRIORITY: INCREASE OUR RESEARCH CAPACITY

KEY OUTCOMES FOR 2013-14

WE HAVE:

- increased our capacity in strategic priority areas through the recruitment of 34 of 50 new assistant professor hires (the remaining hires should occur by July 1, 2014) and approximately 85 post-doctoral scholars described in the previous section of “Talent attraction, development, and retention”; and
- completed our recruitment of four Campus Alberta Innovation Chairs: two in the area of brain and mental health and two in energy research.

WE WILL:

- complete the recruitment of a Canada Excellence Research Chair in Materials Engineering for Unconventional Oil Reservoirs — as described in Section on Talent Attraction;
- launch a new round of recruitment for 50 Eyes High post-doctoral scholars in strategic priority areas;
- institute a professional development program for scholars interested in commercializing knowledge;
- advance our research platforms via partnership with other CARI universities to expand complementary applications while minimizing functional overlap;
- review and improve our intellectual property (IP) policy and related procedures to support faculty and graduate students engaged in commercialization efforts;
- collaborate with industries working in our priority research areas to secure crucial equipment needed to test or licence new protocols, products or techniques that would expand access to markets;
- enhance research infrastructure, through our research platforms, that can be used in a collaborative fashion. We will continue to plan and execute the re-development of animal-care facilities for research purposes; and
- create training opportunities for students from Campus Alberta and provide access to specialized research facilities for student projects (2013-14 and ongoing).

KEY OUTCOMES FOR 2014-15

WE WILL:

- complete the recruitment of five AI-HS Translational Health Chairs in research areas of personalized medicine, bioinformatics, cancer prevention, brain and mental health, and metabolomics;
- complete evaluation and recruitment of post-doctoral scholars through the new Alberta Innovates post-doctoral program;
- recruit a new cohort of Eyes High post-doctoral scholars in priority research areas;
- recruit 10 new post-doctoral scholars through the MITACS program; and
- recruit 55 Eyes High doctoral students.

KEY OUTCOMES FOR 2015-16

WE WILL:

- complete the recruitment of three new NSERC Industrial Research Chairs to expand the research program of our Canada Excellence Research Chair in Materials Engineering for Unconventional Oil Reservoirs.
PRIORITY: CREATE A DYNAMIC ENVIRONMENT TO PROMOTE RESEARCH EXCELLENCE

KEY OUTCOMES FOR 2013-14

WE HAVE:
- expanded the SUPPORT review mechanisms to include individual grants and nominations via peer review by interdisciplinary teams; and
- completed the national requirements surrounding education and accountability for responsible conduct of research.

WE WILL:
- complete the electronic research portal for grant management, compliance, application, and reporting;
- complete the University of Calgary’s contribution to the provincial harmonization of ethics protocols and evaluation procedures;
- continue to establish UCARE, a harmonized system for animal care at the University of Calgary; and
- complete our Canadian Council for Animal Care accreditation.

KEY OUTCOMES FOR 2014-15

WE WILL:
- complete the work on UCARE (i.e. personnel hired) and ensure new harmonized facilities are completely functional; and
- review the operations of research stations and implement new funding models that support sustainable operations.

KEY OUTCOMES FOR 2015-16

WE WILL:
- explore new models to sustain commercialization of inventions and knowledge mobilization; and
- host the 2016 meeting of the Congress of the Humanities and Social Sciences, which will bring together scholars from across Canada and around the world in conjunction with our 50th anniversary.
ENROLMENT PROJECTIONS

In 2012-13, the University of Calgary enrolled 28,341 Full-Load Equivalent (FLE) students registered in 13 faculties and over 260 programs. This translates into a headcount of 34,109 students (26,745 undergraduates; 6,437 graduates; 927 post graduate medical education students in Medicine). We also had 365 students registered at our Qatar campus. Please note these are numbers reported at the end of 2012-13. In our previous CIP, we reported numbers from the beginning of 2012-13. This is the largest enrolment in the history of the university of Calgary.

Over the past decade the university has expanded to address strong student demand, resulting in an enrolment that has increased by 18.5 per cent from 23,914 in 2002-03 to 28,341 in 2012-13 — 11.9 per cent above the existing capacity of 25,335 FLEs. Space is thus constrained on our campus. This space constraint will worsen in the coming decade due to the growth expected in Calgary.

Calgary is the largest city in Alberta and the third largest municipality in Canada\(^\text{16}\). It is also the fastest-growing metropolitan area in Canada — with a population expected to reach 1.5 million by 2019. As a result of this anticipated growth, the demand for post-secondary education is on the rise in Calgary — in a city that already has the highest number of turn-aways in the province. The Ministry of Innovation and Advanced Education has estimated that by 2020-2021, the University of Calgary will have the largest increase in projected enrolment and also the largest projected shortage in space\(^\text{17}\).

The Capital Plan includes a number of priorities, both new and renewal projects, to address both the shortage in space we are currently experiencing, and quality of space in some instances. The faculty space master-planning initiative that has been completed demonstrates that a shortage of space is

\(^{16}\) 2011 Census, Government of Canada, Statistics Canada
\(^{17}\) 2013 Campus Alberta Planning Resource, Government of Alberta, Innovation and Advanced Education
Demand for our programs has been growing significantly and is only expected to increase given rapid population growth in Calgary and our growing national and international reputation.

Demand for programs at the University of Calgary has been growing significantly as evidenced by the ratios of applicants to registrants (see below). This application pressure is only expected to increase given the rapid rate of population growth in Calgary and as we continue to increase our national and international reputation. In order to manage growth effectively and within available resources, over the past two years we have moved to a sustainable growth model — one that increases our accountability to the government and staff and students of the university. Thus, unless new resources become available for expansion we plan to maintain enrolment over the next three years and focus on providing students with an exceptional learning experience while supporting them to graduate in a timely fashion. Our ability to provide exceptional learning experiences has been affected by the budget cut that was announced on March 7, 2013. Pre-March 2013, our budget allowed for $15,800 per FLE; while we were grateful for the additional funding announced in November 2013, our funding per FLE has been reduced to $14,700 per FLE (an overall decrease of 7 per cent per FLE).

There are two initiatives that have the potential to address our access issue and increase enrolment with strategic allocation of new resources. The first is the development of a learning technologies strategy that will include a focus on enabling and enhancing learning experiences through the integration of learning technologies, with the potential to create alternative instructional approaches that allow for a larger on-line presence and admissions (strategy will be developed by June 2014). The second is our international strategy, which includes international student targets that call for an increase of just over 1000 international students at the undergraduate level (to 10 per cent of the overall undergraduate student enrolment), and about 100 additional international graduate students (to 25 per cent of the overall graduate student enrolment). These additional international students will be considered above our provincial enrolment targets. This type of diversification (i.e., to increase the proportion of international students relative to domestic students) will enhance the student experience and lead to a greater cultural and geographic understanding that lends itself to global citizenship, in line with our Academic Plan and Research Plan, and our international strategy.
recent March 2014 budget we were provided with an additional $3.8 million for targeted enrolment. As details of this funding emerge, we will modify the targets below in conjunction with the ministry.

As outlined in our 2012 and 2013 CIPs, we will continue to shift our undergraduate-to-graduate student ratio by slightly increasing the number of graduate students and adjusting our undergraduate enrolment accordingly.

As part of an annual review process, the University of Calgary has been working to address low enrolment programs. As of January 2014, 13 programs have been approved by the Academic Planning and Priorities Committee for suspension and closure. Additional low-enrolment programs are currently under review by the faculties.

Table 5 includes our current overall institutional projected enrolment, not accounting for the learning technologies strategy that is in development or the international enrolment targets. In the recent March 2014 budget we were provided with an additional $3.8 million for targeted enrolment. As details of this funding emerge, we will modify the targets below in conjunction with the ministry.

As outlined in our 2012 and 2013 CIPs, we will continue to shift our undergraduate-to-graduate student ratio by slightly increasing the number of graduate students and adjusting our undergraduate enrolment accordingly.

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### Table 5 — 2014-15 Fall Enrolment Target by Faculty (Headcount)

<table>
<thead>
<tr>
<th>Priority Areas</th>
<th>Undergraduate</th>
<th>Master’s</th>
<th>PhD/EdD</th>
<th>2014-15</th>
<th>2013-14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts</td>
<td>7,200</td>
<td>393</td>
<td>382</td>
<td>7,975</td>
<td>8,479</td>
</tr>
<tr>
<td>Environmental Design</td>
<td>-</td>
<td>233</td>
<td>35</td>
<td>268</td>
<td>274</td>
</tr>
<tr>
<td>Interdisciplinary Grad. Program</td>
<td>-</td>
<td>-</td>
<td>10</td>
<td>10</td>
<td>22</td>
</tr>
<tr>
<td>Haskayne School of Business</td>
<td>2,700</td>
<td>538</td>
<td>43</td>
<td>3,281</td>
<td>3,463</td>
</tr>
<tr>
<td>Kinesiology</td>
<td>760</td>
<td>43</td>
<td>21</td>
<td>824</td>
<td>820</td>
</tr>
<tr>
<td>Law</td>
<td>310</td>
<td>56</td>
<td>4</td>
<td>370</td>
<td>362</td>
</tr>
<tr>
<td>Medicine</td>
<td>1,080</td>
<td>263</td>
<td>230</td>
<td>1,573</td>
<td>1,578</td>
</tr>
<tr>
<td>Medicine — PGME</td>
<td>940</td>
<td>-</td>
<td>-</td>
<td>940</td>
<td>934</td>
</tr>
<tr>
<td>Nursing</td>
<td>1,015</td>
<td>120</td>
<td>31</td>
<td>1,166</td>
<td>1,047</td>
</tr>
<tr>
<td>School of Public Policy</td>
<td>-</td>
<td>120</td>
<td>31</td>
<td>1,166</td>
<td>1,047</td>
</tr>
<tr>
<td>Schulich School of Engineering</td>
<td>3,100</td>
<td>654</td>
<td>420</td>
<td>4,174</td>
<td>4,307</td>
</tr>
<tr>
<td>Science</td>
<td>4,850</td>
<td>410</td>
<td>372</td>
<td>5,632</td>
<td>5,705</td>
</tr>
<tr>
<td>Social Work</td>
<td>432</td>
<td>291</td>
<td>36</td>
<td>759</td>
<td>782</td>
</tr>
<tr>
<td>Veterinary Medicine</td>
<td>120</td>
<td>30</td>
<td>40</td>
<td>190</td>
<td>201</td>
</tr>
<tr>
<td>Werklund School of Education</td>
<td>850</td>
<td>1,207</td>
<td>297</td>
<td>2,354</td>
<td>1,982</td>
</tr>
<tr>
<td>Open Studies</td>
<td>1,851</td>
<td>-</td>
<td>-</td>
<td>1,851</td>
<td>1,374</td>
</tr>
<tr>
<td>GS Exchange and Visiting</td>
<td>-</td>
<td>35</td>
<td>-</td>
<td>35</td>
<td>36</td>
</tr>
<tr>
<td>Subtotal</td>
<td>25,208</td>
<td>4,313</td>
<td>1,921</td>
<td>31,442</td>
<td>31,399</td>
</tr>
<tr>
<td>Qatar</td>
<td>425</td>
<td>18</td>
<td>-</td>
<td>443</td>
<td>414</td>
</tr>
<tr>
<td>TOTAL</td>
<td>25,633</td>
<td>4,331</td>
<td>1,921</td>
<td>31,885</td>
<td>31,813</td>
</tr>
</tbody>
</table>

Note: Headcount enrolments at the end of the fall semester second week of classes, except for Nursing, which has a winter intake as well.
STUDENT DEMAND

As evidenced by our increased enrolment, over the past several years we have seen an increase in student demand for our programs. In particular, our professional programs are in high demand, with applicant-to-enrolled ratios of 15.5 to 1 in our Medical Doctor program, 13.5 to 1 in our JD program in Law and 8.2 to 1 in Veterinary Medicine. We have also seen an 8.6 per cent increase in applications from all categories of students in 2013-14, with a 4.8 per cent increase in self-identified Aboriginal students, 21.9 per cent increase in non-Albertan applications, and an 18.1 per cent increase in international applications. It is important to highlight interest in three programs in particular — we have seen a 25 per cent, 12.1 per cent, and 10.5 per cent increase in undergraduate applications for engineering, nursing, and our commerce programs, respectively. Our applicant-to-registrant ratio for undergraduate students currently sits at 2.58 to 1 and 3.52 to 1 at the graduate level.

SUMMARY

As a result of a focus on our priorities, graduates from the University of Calgary will be thoughtful, communicative citizens and leaders of their respective communities, with abilities to think critically and creatively to solve issues of the day. They will understand the value of collaboration and partnerships, and will be used to working with others who are considered traditionally to be outside of their fields of expertise. They will also appreciate different cultures and see value in diversity — of opinion, thought, gender, ethnicity, and culture. They will appreciate the limited resources available on Earth, and work and live to create a sustainable future.

Through a focus on our academic and research priorities, we will work with the City of Calgary and surrounding communities to enhance the strategic advantage we already have in place. We will work with community leaders, corporate partners, non-profit organizations, alumni and the public to inspire and ensure a positive future.

PERFORMANCE MEASURES

Excellence is a word that is widely used in strategic plans. Instead of merely talking about excellence, we will demonstrate it through our actions. We continuously evaluate our performance using rigorous metrics (see chapter 13). We currently benchmark ourselves against the top five universities in Canada. Subsequently, we will move to benchmarking against the top universities on the world stage to achieve our goal of becoming a global intellectual hub. We will be an innovative and excellent university based on our merits and our performance. We are transforming our culture to one that embraces and celebrates excellence and rises to the challenge with achievement. In doing so, we are developing a shared sense that the University of Calgary is a community of optimism, pride and opportunity.
The University of Calgary submitted a proposal to the Ministry in August 2013 to expand access in a number of our programs by 1,292 spaces to accommodate student demand, labour market demand, and overall population growth in Calgary. Calgary is consistently the region with the highest number of turnaways among qualified applicants for spots in post-secondary programs. This application pressure is only expected to increase given the rapid rate of population growth in Calgary. The current population of Calgary is approximately 1.1 million, making it the largest city in Alberta, the third-largest municipality in the nation, and the fourth-largest metropolitan area in Canada18. The metropolitan population of Calgary is projected to reach 1.5 million by 2019. Planning for this growth is an essential element of sustainable management of the post-secondary sector.

We were pleased that of these proposals, we received $3.8 million in the 2014 budget for 339 FLEs in a variety of programs. This tranche of money will grow to $9.6 million at program maturity, funding 1031 FLEs. We were disappointed that there was no new money for health related programs, particularly those in medicine and nursing. We would encourage the Ministry to consider these programs for funding envelopes in the future, given the needs in the health care system.

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FACULTY OF ENVIRONMENTAL DESIGN
(approximate time frame: 2014-15)
- Renaming of the Master of Environmental Design degree for greater clarity and post-professional opportunities in the areas of Architecture, Planning and Landscape Architecture.
- An accredited degree in Landscape Architecture with linkages to existing Planning and Architecture degrees
(approximate time frame: 2015-16 and beyond)
- A course-based research degree at a doctoral level that would be called a Doctor of Design

HASKAYNE SCHOOL OF BUSINESS
Undergraduate programs
(approximate time frame: 2014-15)
- B.Comm/BSc (Eng) joint degree

Undergraduate programs
(approximate time frame: 2015-16 and beyond)
- B.Comm (Honours)

Graduate programs
(approximate time frame: 2014-15)
- MBA/MPlan joint degree

Graduate programs
(approximate time frame: 2015-16 and beyond)
- Doctor of Business Administration (DBA)
- Expansion of the MSc program
- Master of Financial Management

FACULTY OF KINESIOLOGY
Undergraduate programs
(approximate time frame 2014-15)
- Bachelor of Kinesiology/Bachelor of Health and Physical Education (Athletic Therapy) joint degree with Mount Royal University

FACULTY OF MEDICINE
Undergraduate programs
(approximate time frame: 2014-15)
- Combined/joint BSW/BHSc program in Social Work
- Indigenous Studies program within the BHSc program

Graduate programs
(approximate time frame: 2014-15)
- Pathologists’ Assistant (course-based master’s degree)
- Graduate specialization in Indigenous Health in Community Health Sciences

SCHULICH SCHOOL OF ENGINEERING
(approximate time frame: 2014-15)
- BSc in Energy Engineering (designed to provide graduates of technology diploma programs with a seamless transition into a university engineering program).
- Develop the delivery of existing course-based master’s graduate programs via distance delivery

FACULTY OF SCIENCE
(approximate time frame: 2015-16 and beyond)
- BSc in Energy Science (major and minor) that includes both petroleum-based and alternative-energy solutions

FACULTY OF SOCIAL WORK
(approximate time frame: 2014-15)
- Certificate in Marriage and Family Therapy
- Expand the delivery of existing undergraduate and graduate programs via distance delivery
- Restructure MSW program to accommodate a stackable certificate model

WERKLU Nd SCHOOL OF EDUCATION
(approximate time frame: 2015-16 and beyond)
- On-line and blended BEd degree for course work with practica completed in the student’s home community.
EYES HIGH — CONNECTIVITY

PARTNERSHIPS

The Alberta Government has emphasized the enhancement of system collaboration and partnerships, and we think it is important to describe the connectivity that the University of Calgary has developed. Below, we highlight current illustrative examples of system partnerships and partnerships with the local, provincial, national and international communities. Our vision of collaboration and partnership is one in which we believe we have expertise to offer and a willingness to learn from our partner institutions, and we acknowledge that unexpected synergies often arise from working together. We also acknowledge our Senate, a group of community representatives who help facilitate partnership development in the community.

The University of Calgary is committed to fully engaging the communities we both serve and lead.

CALGARY AND SURROUNDING AREAS

CAMPUSS ALBERTA

We have a number of connections with Calgary post-secondary institutions.

- We have academic program partnerships with Calgary institutions — such as the Athletic Therapy (AT) program and Social Work program with Mount Royal University (MRU). In the case of the AT program (n=20 students), MRU takes a lead role, while in the case of Social Work (n=160 students at MRU and University of Calgary), we have a transfer agreement that allows MRU diploma holders to enter year three of the BSW degree at the University of Calgary.

- The Southern Alberta Integrated Libraries (SAIL) Consortium was formed in 2005 between the University of Calgary and St. Mary’s University College, Bow Valley College, and Ambrose University College. The University of Calgary hosts shared library services using its integrated software system (Sirsi) and hardware on a cost-recovery basis. In addition, other library services can be negotiated (e.g., the set-up and maintenance of non-Sirsi software currently licensed by the University of Calgary).

- From a project perspective, the University of Calgary worked with MRU on a student-led project that resulted in a solar house built as part of the U.S. National Department of Energy Solar Decathlon competition that was held in Irvine, California in September 2013. This partnership spans the entire spectrum at both institutions, from the level of the provosts, to administrators, fund development experts, facilities and management personnel, and most importantly, students. There were approximately 100 students from both institutions involved in the project, which placed 9th in the competition.
OUTSIDE OF CAMPUS ALBERTA

We have strong connections with a number of key organizations:

• We partner with our professional communities to lead teaching innovation and practice and to expand educational outreach.

  • The Werklund School of Education signed a partner research school agreement with eight school authorities in Calgary and surrounding areas. This partnership includes dynamic collaborations among schools, communities, and universities leading innovation through research-active inquiry and practice.

  • The Rothney Astrophysical Observatory (RAO) is the university’s principal scientific education and public outreach facility in the Calgary area, offering community experience and learning in astronomy and astrophysics from its location south of Calgary near the town of Priddis. Through partnerships (in the form of Board-recognized field trip lists) with the Calgary, Calgary Separate, Foothills, and Rocky View School Boards, 3096 students visited the RAO from area board, charter, and private schools during 2013. Beyond school groups, RAO’s outreach activities are enhanced through memberships in and partnerships with Museums Alberta, the Society of Education Resource Groups, the Calgary Chapter of the Royal Astronomical Society, and the Calgary Foundation. In all, the broad range of events and activities at the RAO were attended by 7581 visitors from Calgary and across Alberta in 2013.

• We partner with groups to preserve culture and language:

  • The Werklund School of Education is partnering with Indigenous communities, students, academic, research, education, community and government leaders to engage in discussions on bringing Indigenous perspectives into a faculty of education.

• The Department of Linguistics, Languages and Cultures is working with Aboriginal communities to create teaching materials to ensure language preservation.

• We partner with Alberta Health Services (AHS) to improve health care and patient outcomes across the province by:

  • providing certificate and continuing education programs for physicians and other health care professionals within Calgary and across Alberta including face-to-face education, videoconference learning, and e-learning. Providing non-credit executive education for AHS leadership in partnership with the University of Alberta;

  • accessing preceptors and clinical placements, particularly for medical and nursing students throughout Alberta.

  • sharing academic/clinical leaders in almost all of our departments in the Faculty of Medicine.

  • Collaborating with AHS in the Knowledge Resource Service (KRS) that provides electronic information sources and other library services and training for all AHS health and wellness professionals. The KRS is based on the Health Information Network, a successful collaboration established in 2005, and also includes a website managed by the university on behalf of KRS.

To improve the quality of life for Calgarians, we partner with the City of Calgary and agencies.

• The University of Calgary works closely with Calgary Economic Development (CED) and is a partner of Action Calgary’s “Be Part of the Energy” Campaign to help build relationships to stimulate employment growth and diversification in Calgary.

• We support agencies like the United Way that provide individuals and families the opportunity to reach their potential and
improve their quality of life. In 2013, the university raised $407,000 for the United Way, exceeding our target of $360,000.

- The university community rallied to support Calgarians displaced by the floods in June 2013. Working in concert with the Calgary Emergency Management Agency, the university housed more than 1000 people on campus, including those forced from their homes, as well as emergency workers in the city to provide assistance. Many faculties, drawing on the expertise of academic staff and students, provided assistance on issues ranging from health challenges to insurance and legal questions. In all, more than 1000 members of the community volunteered their time and talent to assist individuals and organizations in need of, for example, temporary housing, wellness services, office and classroom space, and information on disaster recovery and flood design.

- The faculties of medicine, environmental design, nursing, and social work worked together on projects with the YMCA at the South Health Campus to assess the impact of programs and services on the communities adjacent to this institution.

- makeCalgary is a community-based research platform in the Faculty of Environmental Design that engages the disciplines of architecture, planning and ecological design in an interdisciplinary fashion to make Calgary what we all imagine.

- The University of Calgary is a proud community partner of the Calgary Stampede, playing many roles in the stampede story. Our celebration of the Calgary Stampede’s Centennial Anniversary in 2012 and our on-going partnership supports the university’s Eyes High strategic direction of fully integrating with the community of Calgary.

- Advancing Canadian Wastewater Assets (ACWA) is a partnership between the University of Calgary and the City of Calgary. ACWA’s main goal is development of innovative wastewater treatment technologies to improve ecosystem and human health. ACWA includes major installations at the City’s Pine Creek Waste Water Treatment Plant, and is funded by the Canadian Foundation for Innovation (CFI), the City of Calgary, the province, and the university.

- To encourage technology transfer, we partner with the City of Calgary, the Calgary Chamber of Commerce, and the provincial and federal governments in Innovate Calgary.

- Innovate Calgary brings together researchers, entrepreneurs, and investors to create innovations that drive economic growth, job-creation, and social well-being. Innovate Calgary has a vision to become one of the leading innovation eco-systems in Canada.
CAMPUS ALBERTA (PROVINCE-WIDE)

We work with other Campus Alberta institutions to provide programming and special initiatives throughout the province.

- Our social work program is a model for Campus Alberta, given that it is the only degree-granting social work program in the province. We offer Bachelor of Social Work (BSW) programming to more than 500 undergraduates annually across the province, much of it offered directly to students in their home locations through strong educational partnerships. In Edmonton, we host our program in a professional building and have 2 + 2 transfer agreements with Grant McEwan University and Norquest College to directly accept social work diploma holders into the third year of a BSW degree. Our Edmonton-based students also receive library and other student supports from the University of Alberta. In Lethbridge, our program has long been hosted on the University of Lethbridge campus, and we work closely with academics from that institution. In Calgary we work closely with MRU to deliver on a similar 2 + 2 transfer agreement that offers degree completion for their social work diploma graduates. We have long-standing outreach sites where the BSW is delivered onsite at local colleges such as Grande Prairie Regional College, Keyano College, Red Deer College, Medicine Hat College, and Portage College. We have key transfer agreements with all of these colleges, and other schools such as Maskwacis Cultural College, Blue Quills First Nations College and Northern Lakes College. Finally, we also offer an online BSW program to students in every other part of the province through our Virtual Learning Circles program. This provincial delivery model provides connections with dozens of community organizations throughout the province, including Southwest Child and Family Services in Lethbridge, Canadian Mental Health Association in northern Alberta, Glenrose Rehabilitation Hospital in Edmonton, and the Calgary Immigrant Women’s Association.

- We have developed a long list of partnerships for our veterinary medicine program. We have designed admission procedures for the DVM degree so that students from all Alberta universities and the majority of colleges (11) can complete the prerequisites for entry to the program at their home institutions. As another example, the Faculty of Veterinary Medicine (FVM) sends DVM students to Olds College for learning experiences, and hosts students from Olds College for learning experiences in Calgary. Our FVM has a unique distributed veterinary learning community, and thus we are connected to about 60 veterinary clinics throughout the province where students go for clinical placements. These partnerships also provide clinical homes for our faculty members. Our FVM has launched a unique collaborative graduate course with the University of Alberta in One Health that is taught through videoconferencing and includes students from both universities.

- We have a long-standing partnership with Medicine Hat College that was recently renewed in 2012 to provide our Bachelor of Nursing degree at the college (n=122 students). The majority of students in this program reside in Medicine Hat or the surrounding rural area, thus the program enables nursing students to study and subsequently seek employment within or close to their home communities, a critical factor in ensuring we have qualified nurses working in rural Southern Alberta.

- We have had a partnership with Red Deer College (RDC) since 1996, which now provides Bachelor of Arts degrees (n=126 students) through a transfer program in the major fields of English, psychology, and sociology. Students may also minor in English, history, philosophy, political science, psychology, or sociology, and in rare circumstances we have had students complete a minor in visual studies and art.
Students complete their program at RDC, with professors from RDC teaching the first and second years of the program, and a mix of RDC and University of Calgary faculty teaching the third and fourth years. Faculty from the University of Calgary travel to the RDC campus to teach. We are discussing expanding our partnership with RDC to other programs.

- Our Faculty of Law is involved with the University of Alberta, Faculty of Law in a joint venture with the Solicitor General of Alberta to run the Alberta Law Reform Institute.

- Our downtown campus serves as the home for academic programs from the University of Alberta and Athabasca University, as well as our own academic programs (Continuing Education, School of Public Policy, and Executive Education from the Haskayne School of Business), including a branch library.

- The Native Ambassador Post-Secondary Initiative (NAPI) is an Aboriginal youth outreach and leadership training program managed by the Native Centre at the University of Calgary. The program is designed to provide comprehensive and culturally appropriate leadership training certificates as well as information on post-secondary education. The program is targeted towards Aboriginal youth enrolled in junior and senior high school and other youth programs. The primary objective of the program is to provide youth with leadership training that focuses, in a cultural context, on self-development, interpersonal relations, and community engagement. In addition, the program offers motivational presentations that encourage youth to pursue post-secondary education. Ambassadors from MRU, SAIT, Bow Valley College and the University of Calgary serve as role models in junior and high schools, provide campus tours for visiting groups, and travel to regional Aboriginal career fairs.

- Our Faculty of Graduate Studies is developing an ongoing relationship with its counterpart at the University of Lethbridge to partner on professional development training for graduate students. To begin this partnership, in March of 2014, University of Lethbridge graduate students and faculty members will attend University of Calgary-sponsored workshops, presented by an international visiting speaker.

- Campus Alberta Neuroscience (Albertaneuro) is a province-wide network of -250 research professionals working in neuroscience and mental health: from early brain development to Alzheimer’s and from foundational biological research to clinical, therapeutic and system application of new knowledge. University of Calgary, University of Alberta, and University of Lethbridge work together to facilitate research, attract the best and the brightest and network the neuroscience community (albertaneuro.ca).

- Campus Alberta Global Health is an emerging network of global health researchers working across six Alberta universities and colleges with the goal of collaboration, harmonization of research interests and policy influence with funding organizations such as Alberta Innovates Health Solutions. Two annual fora have been held with plans for 2014 now underway.

- The University of Calgary’s Students’ Union, which represents the 25,000 undergraduate students on campus, has strong connections through their provincial and federal advocacy groups, allowing them to collaborate with student associations across the country in order to improve the quality of education and student experience Canada-wide. The Council of Alberta University Students (CAUS) represents more than 80,000 students in Alberta, including those from the University of Calgary, University of Alberta, University of Lethbridge, and Mount Royal University. Our Students’ Union is a key player within this organization, with our past two vice-presidents external serving as CAUS chair during their terms. The Canadian Alliance of Student Associations (CASA) consists of 24 student associations from seven provinces and represents more than 300,000 post-secondary students on a national level to advocate for accessibility, affordability, innovation, and quality in education.
MULTIPLE PROVINCIAL/NATIONAL PARTNERSHIPS

We have partnerships that involve the prairie provinces to help improve health and wellness.

- The Health Knowledge Network (HKN) is a collaborative venture, established in 1994, between the University of Calgary and the University of Alberta to provide electronic information resources and services to health and wellness organizations in the prairie provinces. This service currently serves 28 member organizations in Manitoba, Saskatchewan, and Alberta and is presently headquartered in the Health Sciences Library at the University of Calgary.

- The Prairie Child Welfare Consortium is a tri-provincial and northern multi-sector network engaging university educators and researchers from faculties of social work in Alberta, Saskatchewan and Manitoba, government and Aboriginal administrators, policy-makers, and service delivery agents dedicated to advancing and strengthening child welfare education and training, research, policy development, practice, and service delivery in the prairie provinces and the Northwest Territories. The consortium is unique in Canada with its accomplishments across organizational, geographical, political, and cultural boundaries.

We have partnerships with other prairie universities that allow us to examine immigration and integration.

- The Prairie Centre of Excellence for Research on Immigration and Integration is a research consortium representing six prairie universities including the University of Alberta, the University of Calgary, the University of Manitoba, the University of Regina, the University of Saskatchewan and the University of Winnipeg. The centre is based at the University of Alberta with research nodes at each of the other five universities. The overall goal of the centre is to better understand the processes by which immigrants become Canadians. The work of this centre is particularly important in Calgary,
as the fourth-largest city in Canada with the highest immigrant population next to Toronto, Vancouver, and Montreal. It is estimated that by 2020, the total number of immigrants in Calgary will reach almost half a million.

We provide employment information for Aboriginal students in Western Canada.

- The University of Calgary Native Centre manages the LYNX: Aboriginal and Student Employment Program, which provides an opportunity for Aboriginal students and recent graduates from Canadian post-secondary institutions to connect directly with potential employers who are seeking to recruit qualified Aboriginal employees for internships, co-op placements, summer employment and full time positions. Since 2008, the LYNX Program has established partnerships with 14 post-secondary institutions across western Canada (Universities of Winnipeg, Manitoba, Regina, Saskatchewan, Calgary, Alberta, British Columbia, Northern British Columbia, Victoria, and Lakehead, Mount Royal, and Vancouver Island Universities, as well as technical institutes such as the Saskatchewan Institute of Applied Science and Technology and SAIT Polytechnic).

We play a leadership role in veterinary medical education.

- We have strengthened our partnership between the Faculty of Veterinary Medicine and the Alberta Veterinary Medical Association. This includes partnership in delivering the DVM program, advanced clinical training (internships), graduate/clinical fellow training, and research activities.

- We collaborate with the five Canadian veterinary colleges in the following specific programs: a National Ecosystem Health Rotation (rotates between the colleges annually and is delivered by a joint faculty from the five colleges), the Canadian Wildlife Health Co-operative (surveillance/research; five collaborating nodes across the country based at each vet college; funded through a variety of government sources), and the Canadian Veterinary Regulatory Epidemiology Network (a consortium of the five colleges and supported by the Canadian Food Inspection Agency [CFIA]). We are also working the Canadian veterinary and agriculture colleges in a joint contract with the CFIA to produce a food-safety training program for their staff as they upgrade and change the food safety system in Canada. We also have a specific rotation exchange program with the Western College of Veterinary Medicine.

- We collaborate with Alberta Agriculture and Rural Development — we have an Animal Disease Risk and Surveillance Group between the two organizations and we also collaborate on animal disease investigation outbreaks.

We partner with multiple universities to access high-performance computing.

- WestGrid is a government-funded technology infrastructure program in British Columbia, Alberta, Saskatchewan and Manitoba that provides research faculty and students access to high-performance computing and distributed data storage. Members include 13 research-intensive Western Canadian universities and the Banff Centre. Westgrid is also part of Compute Canada, a national high performance computing platform.

We partner with multiple universities to provide a community rehabilitation degree.

- The Bachelor of Community Rehabilitation program, the only of its kind in Western Canada, is predicated on partnerships with post-secondary education and community service organizations. The Bachelor of Community Rehabilitation Program enjoys a block transfer arrangement with more than 60 post-secondary agencies in Canada. These block transfer arrangements provide for seamless transfer between a two-year diploma program into the remaining two years of the Bachelor of Community Rehabilitation program at the University of Calgary. Classroom instruction is delivered face-to-face at the University of Calgary.
as well as at Grant MacEwan University and Douglas College in British Columbia and many courses are also available in online formats. Whether students are interested in community development and advocacy, or legal and social reform, completion of a Bachelor of Community Rehabilitation degree entails a strong theory-to-practice connection including approximately 600 hours of community practicum experience. The program has community partnerships with more than 200 organizations and agencies in Calgary. We also publish an online publication: *International Journal of Disability, Community and Rehabilitation*. The Department of Community Rehabilitation and Disability Studies (CRDS) also delivers MSc, MDCS and PhD programs in a blended format.

We have partnerships with national organizations to preserve our heritage.

- The Military Museums Library and Archives and the Founders’ Gallery in Calgary are managed by Libraries and Cultural Resources (LCR) at the University of Calgary and provide support for both academic and community programs, through a partnership established in 2000. This is a joint project involving the University of Calgary, the Department of National Defence, the Military Museums, the Regimental and Naval and Air Force museums located at the Military Museums, the university’s Centre for Military and Strategic Studies located in the Faculty of Arts, Valour Canada and the Military Museums Foundation.

We participate in numerous partnerships with national and multi-national corporations to advance innovations.

- Alberta Sulphur Research Limited, one of the longest-lived and most successful research enterprises in Alberta, continues to serve as a contact point between industry and academia, striving to provide expert understanding of the chemistry of sulphur and its compounds.

- The new Microseismic Industry Consortium, a novel, applied-research geophysical initiative dedicated to the advancement of research, education and technological innovations in microseismic methods and their practical applications for resource development.

- The Foundation CMG/Frank and Sarah Meyer Collaboration Centre, a state-of-the-art immersive 3D visualization facility.

- MathMinds: A new partnership between the Werklund School of Education, Canadian Oil Sands Limited (COS) and other organizations will take an innovative approach to math education, making it more accessible, interesting, and enjoyable to students from kindergarten to grade six.

- We partner with all three territorial governments by placing our students and residents in northern communities for medical education and cultural experiences.
INTERNATIONAL PARTNERSHIPS:

In our role as a growing global intellectual hub, we have key international partners to help solve global problems. Here are few significant contributions.

- Our international branch campus in the Middle East was established in 2007 at the invitation of the State of Qatar, and is the only campus offering university-level nursing studies in the country. The University of Calgary in Qatar has become well-recognized throughout the area for delivering excellence in nursing education, research initiative, and community engagement. Through our partnerships with Hamad Medical Corporation (HMC), Qatar’s premier not-for-profit health care provider and other key agencies in the healthcare community — including Qatar Red Crescent, Weill Cornell Medical College in Qatar, Qatar Diabetes Association, Sidra Medical and Research Centre, the Academic Health System, Qatar Supreme Council of Education, and Qatar Supreme Council of Health, we have solidified our position as a critical organization in the developing healthcare system of Qatar. In 2013 we achieved several milestones indicative of our success. Research grants enabling our faculty and students to better impact health and wellness in Qatar now total nearly $4 million USD. We welcomed the first students into our Master of Nursing — Advanced Practice graduate class, a program undertaken in partnership with HMC and in support of the Qatar National Cancer strategy. In the fall we completed our requirements for Phase 2 CASN accreditation, and our success with enhancing the image of professional nursing in the Middle East has resulted in a 20- per cent increase in enrollment into our Bachelor of Nursing degree program. Significantly, nearly one-quarter of our new students are male. The University of Calgary in Qatar currently has a population of 413 students representing 33 nationalities.

- The Faculty of Medicine has long-standing partnerships with the Government of Laos to build medical education. We also have a 25-year partnership with colleagues from Paton Academy of Health Sciences in Nepal to build capacity for undergraduate medical education and are now participating in an international consortium of American, Canadian and Australian universities to build a new School of Public Health in Nepal.

- A ten-year partnership to strengthen leadership for medical training in Sudan continues through new initiatives and partnerships. Most recently these linkages have resulted in a successful Grand Challenges award to build a digital medical library to enable access to medical and diagnostic information for rural practitioners in South Sudan.

- The Faculty of Medicine has partnered with African colleagues to create and deliver a Master of Public Health Degree in Mwanza, Tanzania. This work is just one component of a multi-faceted partnership with the Catholic University of Health and Allied Sciences (CUHAS) that includes joint research activities, medical electives and research field training for University of Calgary students. An innovative PhD training program to support the development of global health leaders will see some graduates enrol in doctoral education at the University of Calgary with research focussed on high needs areas of Tanzania. The goal is to build joint University of Calgary and Tanzanian research teams and to strengthen global health research capacity in both institutions.

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Our School of Public Policy connects with research partners at the University of Dundee (Scotland), University des los Andes (Colombia), Sergio Arboleda University (Colombia), Haifa (Israel), and the Van Horne Institute (Canada). As one particular example, all of our policy papers produced on extractive resources/industries appear in the Source Books, a website managed at the University of Dundee in Scotland. This website is funded by the World Bank and is set up to provide access to low- and middle-income countries.

We offer the Global Energy Executive Master of Business Administration (GEMBA) degree program through a partnership between the Haskayne School of Business and global energy consulting firm IHS. The 20-month program comprises five modules, each of which consists of two to three weeks onsite in a global energy centre. The first module takes place in Calgary, with a field trip to Fort McMurray. Subsequent modules are in London (UK), Houston (USA), Doha (Qatar) and Beijing (China) with blended learning between sessions through on-line connectivity, supplementary classes, peer-to-peer meetings, reading and assignments. This program is designed to develop high-potential execuitves in the global energy sector as the industry’s next senior leaders.

The University of Calgary had twenty interns who recently completed their six-month placement working in the field of international development in Latin America, the Caribbean and Sub-Saharan Africa. The International Youth Internship program (IYIP), funded by Canada’s Youth Employment Strategy (YES), is designed to offer young Canadian post-secondary graduates the opportunity to gain professional experience through international cooperation work that complements their fields of study and career goals. The internship placements were aimed at increasing collaboration between University of Calgary International (UCI) and its local partner organizations in Bolivia, Costa Rica, Ghana, Mexico, Nicaragua, St. Lucia, and Uganda.

The University of Calgary has more than 125 active student exchange linkages around the world. These partnerships with many top universities provide opportunities for Calgary students to internationalize their programs. In addition to student exchanges, there are over 180 partnership agreements involving research, joint publication and other scholarly activities.

The University of Calgary is an active partner in a number of Alberta-wide programs that offer internship placements for post-secondary students. Funding for these is allocated through the Alberta Ministry of Innovation and Advanced Education.

- The Washington Centre (TWC). Washington DC: The University of Calgary has a long-standing agreement with TWC to place students in internships in the Washington DC area. Four-month placements may be arranged with embassies (Canadian or other countries), non-governmental organizations and international financial institutions, various non-profit agencies, U.S. government departments and senate or congressional offices. The Alberta government provides funding for eight University of Calgary students per year to participate.

- Smithsonian internships: An Alberta-wide agreement with the Smithsonian Institute in the USA provides 8-10 placements per year. Funded by the Alberta government, the University of Calgary has routinely secured 3-4 placements a year for students in museum studies, archaeology, anthropology or communications and business, to have a 4-6 month internship at one of more than 20 institutions that comprise the Smithsonian.

- Alberta Saxony International Internship Program (ASiiP): Each year, University of Calgary students participate in internship placements in Saxony, Germany in institutions, research, government, and private industry. Honoraria are funded through the provincial government.
Our city demands graduates who have a global orientation, are competitive in a global marketplace, and who can adapt to diverse cultural, economic, and governmental environments.
INTERNATIONALIZATION

We live in a highly interconnected world where technological advances allow us to share information across borders, cultures, and linguistic barriers like never before in human history. The world’s top universities are all international in orientation with well-developed global webs of interaction that help them to create, disseminate, and apply knowledge.

The Eyes High strategic vision introduces the concept that the University of Calgary will become a global intellectual hub, and thus it is not surprising that the consultation process for the Academic Plan resulted in internationalization being one of seven identified academic priorities. Internationalization is a key strategic priority for the University of Calgary because we have an obligation to serve the needs of our community. Calgary is a global energy and business centre, and is home to the second-highest concentration of head offices in the nation. Our city demands graduates, both domestic and international, who have a global orientation, are competitive in a global marketplace, and who can adapt to diverse cultural, economic, and governmental environments. Our province suffers from a shortage of professionals and skilled labour that is a key barrier to future economic growth. The recruitment of international students is increasingly recognized as an important element in a broader strategy for attracting highly qualified people to our country (University of Calgary International Plan, 2013).

The International Task Force, comprised of 24 individuals from across our academy, met over a period of close to a year, and developed an international strategy that was approved by GFC and the Board of Governors in December 2012. The strategy was officially launched by the university in March 2013.

We believe that our international strategy must contribute to the achievement of our Eyes High strategic vision. It presents four high-level strategic goals and three targets:

1. Increase the diversity of our campus communities.
   - Target: 10 per cent of the undergraduate population will be international
   - Target: 25 per cent of the graduate population will be international

2. Improve the global and cross-cultural competencies within our campus communities.
   - Target: 50 per cent of our students will have an international experience before they graduate.

3. Enhance opportunities for international collaborations and partnerships in research and education.

4. Leverage our areas of expertise to engage in international development.

In line with our sustainable development model, we used a regional/country framework to determine the most appropriate locations of focus in the world for the University of Calgary. We recognized that international projects and relationships maintained by the institution reflect a significant investment in time and resources, and that new relationships require significant investment. Given finite resources available, we did a realistic assessment of where the focus of international activity was currently, and given our academic and research priorities, where the most appropriate partnerships opportunities existed. We cross-referenced international education projects in which we were involved with academic and student university-related travel and international research partnerships, along with an analysis of world activity related to our research themes. These analyses yielded countries/regions of
emphasis as well as countries/regions of interest.

The countries/regions of emphasis in which we are choosing to focus our time represent those areas where there was an existence of a solid base of ongoing and strong relationships, strong ties to our academic and research priority areas, and potential connection to industry in both Calgary and in the country/region of emphasis. In addition, strong diasporic or immigrant populations from each of these countries/regions exist in Calgary.

The countries/regions of emphasis include:

- **CHINA**: The sheer scale and speed at which its economy and higher education system are developing make China a tremendous opportunity and challenge to any Canadian university. China is a currently a nexus for many important collaborations.

- **GERMANY**: Western Europe is second only to the United States as a nexus of research collaboration. Germany has a strong post-secondary system. The University of Calgary has strong and diverse patterns of collaboration in Germany.

- **MEXICO**: The convergence of geographic proximity, trilateral agreements with Canada and the United States, and the strength of ongoing collaborations in Latin America make Mexico an attractive partner. In particular, energy innovations will form the basis for strong collaboration in research and education.

- **MIDDLE EAST**: In addition to our nursing campus in Qatar and broader research opportunities that exist in Qatar there are exciting opportunities to bridge to other countries in the region, particularly around energy, engineering and health research.

- **TANZANIA**: The University of Calgary has a diverse and strong pattern of integrated education and research partnerships in Tanzania, particularly related to international development and health.

- **UNITED STATES**: The highest density of our international research collaborations are with the United States. It is the most likely nexus for international consortia that will tackle large-scale problems of importance to society.

In order to develop the further the relationships with our countries/regions of emphasis, we will ensure that the efforts of university leadership are focused on these particular areas and on institutions within these geographic locations; funds are allocated to support internationalization efforts in these countries/regions; a regional council for each country/region — led by a senior executive and composed of members of the academy who have strong ties to the particular country/region, industry partners, and significant Calgary community leaders — supports the development of a strategic plan in each country/region for the University of Calgary.

The primary outcomes over the next three years for our international strategy are listed below.

**KEY OUTCOMES FOR 2013-14**

**WE HAVE:**

- begun implementation of our international strategy;
- launched the country council for China with initial strategic directions developed;
- established the other five country/regional councils for Mexico, the Middle East, Germany, Tanzania and the United States;
- explored the development of recruitment strategies and foundation-year programs for international students. The International Task Force will produce a report for decision at the April, 2014 GFC and Board of Governors meetings;
- developed the supporting organizational structure (i.e., University of Calgary International) required to operate the international strategy;
- commenced strategic projects for each of the regions with selected academic and business partners (e.g., Unconventional Oil and Gas
Research Centre in Beijing, Academic Leaders Program and Global faculty Program in Mexico);
- established an associate deans/directors council to implement the international strategy;
- commenced the planning process to develop a cross-cultural competencies program led by the Faculty of Arts with representation from other faculties;
- commenced exploring sponsored students and international scholarship opportunities to establish a workable model;
- joined CALDO, a consortium of U-15 universities that work together on international initiatives; and
- developed a database to gather all the international activities and projects of the university.

WE WILL:
- launch the remaining country/regional councils and begin the strategy development for each country/region;
- continue to identify meaningful international opportunities for student and staff exchanges to further build intercultural competencies (ongoing);
- develop strategies to ensure a welcoming and culturally sensitive environment for international visitors as well as provide opportunities to celebrate and share the rich diversity of our community; and
- develop strategic and tactical plans (international relations, programs and international development, international learning experiences) within UCI to support the international strategy.

KEY OUTCOMES FOR 2014-15:
- develop a strategic plan and report goals and objectives for each priority country/region by December 2014;
- begin implementation of the international recruitment strategy to meet international recruitment targets of 10 per cent and 25 per cent of the undergraduate and graduate student populations, respectively;
- confirm the type of foundation-year program that we will provide at our institution, and begin development so that it is fully operational for September 2015, including creating identifiable spaces to support this new program. Create a recruitment and foundation-year program that has the potential to serve all of southern Alberta;
- coordinate with each faculty and school to develop a strategic plan for internationalization aligning with the Academic Plan, Research Plan and international strategy;
- ensure institutional frameworks/policies facilitate establishment of complex linkages. For example, we will ensure organizational excellence in this area by ensuring policies and procedures (e.g. international travel and security policy, international linkage policy) and risk management procedures are in place;
- implement the UCI plans under the three areas of a) international relations b) programs and international development and c) international learning experiences;
- start implementing 2-3 strategic priorities identified by each regional council; and
- develop a framework and model to assess and prioritize partnerships with international universities and countries.

KEY OUTCOMES FOR 2015-16
- fully implement the foundation-year program in September 2015. Regardless of the model selected, involve faculties in academic oversight of foundation-year courses; and
- implement the cross-cultural competencies program for our students, staff and faculty and extend this to businesses and communities.
INTRODUCTION/SUMMARY

The Capital Plan directs the development of the University of Calgary’s physical infrastructure in response to the academic and research goals and objectives outlined within the Comprehensive Institutional Plan. Focused on the Eyes High strategic direction and driven by priorities articulated within the Academic Plan and the Research Plan, the Capital Plan forms the basis for the institution’s capital funding request to the Province of Alberta. This plan outlines the principles and processes used to determine our infrastructure requirements, our strategic capital-planning priorities, our capital project priorities, and the associated resources required to meet the academic and research vision. The capital program has been developed through broad consultation within the institution, surrounding communities and Ministry personnel. While comprehensive in scope, it is imperative that this plan is able to respond to our current and future learning and research needs, as well as funding opportunities as they arise.

The University of Calgary has grown from a bare-land education reserve in the late 1950s to a fully developed, urban, inner-city campus in 2014. The owned built-environment exceeds 900,000 gross square meters on multiple campuses. With the first of our buildings built in the 1960s, approximately half of the university’s space is over 40 years old. This aging infrastructure includes critical and essential classrooms, laboratories, theatres, administrative support space, and core campus service facilities.

While the campus infrastructure has undergone a modest expansion over the past few years, our total space inventory still falls short of what is required to meet current program demand, let alone the needs of an expanding and evolving academy.

As we continue to grow and evolve, so does our need to maintain, renew, repurpose, and expand our facilities to meet the aspirations outlined within the CIP and our Eyes High strategy. We have taken a pragmatic and balanced approach in our determination as to how best to accommodate the infrastructure needs of our campuses, through the development of five strategic planning priorities. These are:

- Advance planning and design activities to ensure that projects are effectively scoped and budgeted, and ready for implementation as funding opportunities arise.
- Leverage renewal projects with repurposing needs to address the pedagogical needs for today and tomorrow.
- Identify critical new infrastructure that will provide additional space that cannot be accommodated through repurposing and renewal alone.
- Proactively identify and manage our deferred maintenance liability to minimize the risk of building failures and potential closures.
- Explore alternate funding mechanisms to leverage provincial funding and advance the mission of the institution.
HIGHER-PRIORITY CAPITAL PROJECTS

In support of the academic and research outcomes outlined within the CIP, and in accordance with the CIP guidelines, the university has identified the following highest-priority capital projects:

Expansion/Repurposing
1. MacKimmie Complex Expansion ($210 million)
2. Faculty of Nursing and Faculty of Social Work Backfill and Repurposing ($34.5 million)

New Construction
1. Life Sciences Resources Centre ($120 million)
2. Haskayne School of Business Advanced Learning Centre ($95 million)

Major Preservation
1. Science A Phase 2 ($152 million)
2. MacEwan Hall and Student Centre Redevelopment ($31.5 million)

Minor Preservation
1. Deep Utilities ($8 million)
2. Lab Fume Hoods and Biosafety Cabinets ($3.5 million)

Other Capital Funding Considerations
1. Grant Matching (CFI/LOF) ($10.6 million)
2. Planning Envelope Funding: Various campus master-planning and initial project activities ($2.5 million)

While these represent our highest priorities, the university has identified other capital priorities that are instrumental to achieving the desired outcomes outlined within the CIP and our Eyes High strategy. A summary table of these projects is included at the end of this chapter and will be used to inform our 2015-16 Buildings and Land Infrastructure Maintenance System (BLIMS) submission to government.

ACTIVITIES SUPPORTING OUR STRATEGIC PLANNING PRIORITIES

The University of Calgary continues to create campus environments that enhance and promote teaching, scholarship, and living. Current initiatives are underway to update older infrastructure, construct new learning and research facilities, improve landscaping, enhance way-finding, improve environmental management techniques, and enhance the urban design quality of the campuses. Our capital plan seeks to advance these initiatives as current and proposed capital projects are approved and implemented. Advancing projects through strategic planning, and in some cases partial design, allows for the university to remain responsive to funding opportunities.

Our strategic planning priorities are supported through a variety of planning and development activities:

- Campus and facility master plans
- Faculty and unit space master plans
- Balanced approach to campus development and preservation
- Alternate funding sources
- Additional planning considerations

CAMPUS AND FACILITY MASTER PLANS

Our campus master plans will continue to guide all future decisions regarding major projects on our campus sites. Campus master plans for our Spy Hill and Foothills campuses were completed in 2013, and an update to the 2010 main campus master plan is currently underway and will continue through 2014.

The development of the campus master plans are guided by a number of institutional planning documents and activities, which include:

- Institutional sustainability plan;
- Faculty and unit space master plans;
- Infrastructure Maintenance Program, three-year rolling plan;
- Landscape master plan;
- Transportation demand management plan;
- Residence master plan;
- Food services master plan; and
- Coordination with West Campus master-planning exercises by the West Campus Development Trust.

**FACULTY AND UNIT SPACE MASTER PLANS**

Over the past year, the university has completed space master plans for almost every academic and academic support unit. These plans, together with previous planning efforts to quantify space requirements for our service and non-academic support units, will now allow the university to prepare a holistic capital plan that can articulate long-term infrastructure pressures and needs. Certain themed solutions arise from these planning efforts, as articulated in more detail below, forming the basis for the ongoing integrated Capital Plan of the University.

Faculty and unit space master plans will continue to be used, amongst many purposes, to:

- Provide leadership with information to make objective decisions concerning current and future space allocations; and
- Allow for comprehensive institutional review, priority-setting and ultimate development of the Capital Plan for government, other funding agencies, and to inform philanthropic opportunities.

**BALANCED APPROACH TO CAMPUS DEVELOPMENT AND PRESERVATION**

Accommodating the aspirations set forth in the CIP can be achieved through a balance of renewal, repurposing, new, and preservation projects.

- Strategic, joint renewal and repurposing projects provide a fiscally responsive means to increase net assignable area in existing buildings, improve functionality for the delivery of teaching and learning, and effectively reduce our deferred maintenance liability.

- While we continue to stretch our existing infrastructure to meet the demands resulting from academic and research activities, the university has a significant shortfall of space to meet the demands of our current enrolment targets. For this reason, the university has also identified the need for critical new space on campus that cannot be achieved through our renewal and repurposing strategy.

- Notwithstanding the above, it is imperative that the university remain a strong steward of our existing infrastructure. With almost 50 per cent of our physical infrastructure over 40 years of age and significant reductions in IMP funding, targeted and strategic reinvestment to preserve our valuable assets is required. The university will continue to work with government to identify our recognized deferred maintenance and develop strategic action plans through the IMP and CIP processes.

**ALTERNATIVE PROJECT DELIVERY AND FUNDING MODELS**

We are grateful for the provincial support received to date through IMP and one-time capital grants. As we strive to achieve the aspirations set forth in the CIP, we are committed to leveraging provincial funding in the delivery of our capital priorities. Whether through strategic borrowing, philanthropy or West Campus Development Trust, we will continue to seek and explore opportunities for alternative funding and project delivery models to assist in the delivery of our capital priorities. Recent examples of these efforts include:

- The new residence buildings are using rent-supported mortgages and a design-build process to ensure residence program elements are met and are delivered in a model that promotes innovation and maximizes value for money.

- Three major private donations have allowed key projects to proceed: the Taylor Institute, Schulich School of Engineering Renovation
and Expansion, and the continued restacking renewal of the Education Tower.

- Continued integration of West Campus development through the West Campus Development Trust continues to be a critical mechanism and partnership to create a total package of live-learn-work facilities while generating a continuing revenue stream for reinvestment into the university.

Above and beyond these strategies, we will continue to work with Innovation and Advanced Education and the framework outlined by Alberta Infrastructure to explore the feasibility of delivering our capital priorities through a private/public partnership (P3) model.

**ADDITIONAL PLANNING CONSIDERATIONS**

Imbedded within our capital initiatives is a series of general planning standards to ensure the development of the best possible learning and working environments, balanced against capital and operating costs. These are consistent with typical standards and expectations for the majority of comparable public sector institutions and embody ‘highest and best-use principles’, as embraced by external agencies such as the Council of Ontario Universities (COU), the Educational Advisory Board (EAB), and the Society for College and University Planning (SCUP).

**Performance-based Decision Making**

Within the faculty and unit space master plans, there lies a comprehensive update to the core space data. This data is now able to support reporting, occupancy and utilization analysis. Accurate spatial data highlights deficiencies and/or excesses in any specific space types, which in turn will inform our capital planning. The university is committed to the application of our policies, standards, guidelines and spatial management practices to improve the utilization of our existing infrastructure and inform the planning of new space requirements.

**Sustainability**

The University of Calgary’s sustainability policy commits the institution to “excellence and leadership in advancing the pursuit of sustainability in teaching, research, campus operation and community service.” The institutional sustainability plan is the institutional framework for developing and acting upon institutional commitments. It establishes a holistic approach to campus sustainability including academic, administrative and operational sectors. The plan includes goals, targets and actions for operational portfolios including our capital planning. The University of Calgary currently has a STARS™ (Sustainability, Tracking, Assessment & Rating System) Gold rating and is in the top ten performing institutions in North America for campus operations.
Energy Performance Initiative (EPI)

The university has made a strong commitment to institutional sustainability, including Board endorsement of greenhouse-gas reduction targets. The Energy Performance Initiative (EPI) is a well-established program on campus that has a verifiable record of implementing cost-effective infrastructure upgrades. In addition to the resulting energy and greenhouse gas savings, the work undertaken through this program results in increased comfort in buildings and pre-empts future Infrastructure Maintenance Program (IMP) requirements. The completed EPI phases 1, 2 & 3 and cogeneration projects have resulted in a recurring annual energy cost avoidance of $8.5 million and emission reductions of close to 100,000 metric tonnes.

The current phase of this initiative (EPI Phase 4) will improve the energy performance of seven major buildings identified as having substantive energy reduction potential. It also includes a program to establish an in-house “re-commissioning” capability to fine-tune the mechanical systems in all existing buildings on a recurring basis as well as enhancements to community engagement programs. Seed funding of $4.2 million in 2014-15, from internal sources, will allow the EPI Phase 4 work to be undertaken sequentially over the next ten-year period. As projects are undertaken, the accumulating annual energy savings will grow to $1.65 million. Projects undertaken within this initiative will result in a program payback of less than 10 years.

Beyond the Phase 4 work, early planning is underway for Phase 5, which focuses on the Foothills campus both in terms of building energy retrofits and a potential cogeneration capability in conjunction with Alberta Health Services.

Other ongoing components of the EPI include our energy management system for continuous optimization, demand-reduction strategies to address plug and process loads, and an engagement program. This is supported by the Revolving Energy Fund, which uses energy savings to support future projects that reduce campus energy consumption and GHG emissions.

Community Consultation — Capital Projects

The university is closely connected to the communities it serves, especially those adjacent to our campuses. The autonomous South Shaganappi Area Strategic Planning Group is comprised of representatives from all neighbouring communities, Alberta Health Services, the City of Calgary, and major commercial enterprises in the area as well as the university. Established approximately 11 years ago, this group has served as an invaluable communication and information-sharing opportunity to connect the university with the larger community. The university is also respectful of and responsive to the South Shaganappi Communities Area Plan, a strategy document adopted by the City of Calgary in 2011. When appropriate, the University also participates in other community-based planning which has included the redevelopment of Crowchild Trail adjacent to McMahon Stadium and Century Gardens located beside our downtown campus.

Campus Alberta Partnership Development

Developing partnerships with other Alberta post-secondary facility units began more formally in 2013 through the Facility Administrators Committee. The intent of this group is to seek opportunities to share best practices, determine how and which services could be delivered/shared in a cost effective manner, and work with government on the development of strategic documents and reporting tool for use at each institution. By working together, we look for ways to maximize limited human and financial resources, while maintaining the level of professionalism that exists within the sector.

A number of items have been proposed and will be investigated in 2014-15. For example, the university has begun participating in a province-wide Campus Alberta-framed Task Force for Learning Space and Utilization Standards, which intends to develop made-in-Alberta standards with respect to specific space types. There will be close coordination with the ministries of Alberta Infrastructure and Innovation and Advanced Education. The university always looks to explore partnership opportunities with all internal and external communities.
OVERVIEW OF CURRENT CAPITAL PROJECTS

In alignment with our capital strategic priorities, the university has a balance of capital projects that includes new, expansion, renewal/repurposing, and general preservation. Our major new and expansion capital projects include: engineering expansion, the Taylor Institute and two residence buildings. Our redevelopment and renovation projects include: Science A, the MacKimmie Complex, Administration Building, Education Tower, and Kinesiology. As well, we continue planning and design efforts for critical capital projects that require advancing to ensure that these projects can be implemented quickly once funding becomes available.

We are extremely grateful for the significant contributions from government, industry, and the community. These capital investments include:

- A record donation from the Taylor Family Foundation to create the Taylor Institute for Teaching and Learning, replacing the former Nickle Arts Museum. This project is in construction.
- Government of Alberta funding for the Schulich School of Engineering expansion and renovation, as well as a philanthropic donation from Canadian Natural Resources Limited.
- Philanthropic support to the Werklund School of Education that supports critical renewal and repurposing of our Education complex.

MAJOR PROJECTS COMPLETED IN 2013-14

Energy Environment Experiential Learning (EEEL) Program

Additional fit-out of the fifth floor of the EEEL building was completed in early 2014, for existing chemistry researchers and two Campus Alberta Innovates Program Chair appointees. The remaining fit-up of EEEL will be to house the Canada Excellence Research Chair (CERC) in New Materials Engineering for Unconventional Oil and Gas Reservoirs. EEEL recently received LEED for New Construction platinum certification, in addition to a fifth major design award.

Science A — Phase 1 Redevelopment

Completed in April 2013, the first phase of work to upgrade Science A (originally opened 1960) included circulation and base-building improvements, 11 new classrooms, a new administrative office for the chemistry department and code upgrades to the science theatres. This work prepares the building for Phase 2 but is independent of the later phase. Until major redevelopment funding is awarded, portions of this building will remain out of service.

Advancing Canadian Wastewater Assets (ACWA)

The ACWA project was affected by the flooding of June 2013 and the construction schedule extended. All work, including the Pine Creek facilities and the laboratories on the main and Foothills campuses, was completed in spring 2014.

Accommodation Plan — Phases 2 and 3

To support the university’s integrated services delivery implementation, major support offices have been moved to a central location on the lower floors of the MacKinnie Tower. The co-located offices include Human Resources, Finance and Services, and Research Services, with over 400 staff re-located from four separate
locations. MacKinnie Tower also houses the central offices of the Faculty of Graduate Studies, the Graduate Students’ Association and the new Post-Doctoral Fellows Program office. The upper floors of the Tower, due to building code restrictions, must remain vacant pending funding for a major redevelopment.

The Administration Building at the university is an important part of our heritage and has a significant amount of deferred maintenance. The redevelopment included significant base-building upgrades as well as programmatic changes to support the Board of Governors, the Chancellor and Senate, and co-located the executive leadership group and their respective senior staff. Upgrades and renewal were also undertaken for the Department of Psychology.

Downtown Campus

The downtown campus now includes the offices of Alumni Relations and still offers some vacant capacity for new internal or external uses. Strategic review is underway, and the last of the shell space is expected to be fit-out and occupied by June 2015.

Foothills Campus — Health Research Innovation Centre

The Foothills campus continues to see major work. The 10-year program of expansion and base-building fit-up (totaling just over $206 million) is now fully completed. Over this period, more than 135 individual sub-projects were completed within the various funding envelopes provided.

Classroom Alteration Request (CAR) and Facilities Alteration Request (FAR) programs

2013-14 marked the second tranche of funding to permit renewal and upgrade work to proceed on a number of central- and unit-managed instructional spaces. A total of eight approved projects were completed, making further headway on improving the instructional environment for students and faculty. Other projects approved in this program and still active include: research spaces for psychology and education; design work for a central administration and student advising centre in the Faculty of Science; a major lounge for Faculty of Arts students; and site improvements at the Spy Hill campus.
2013 Solar Decathlon Competition: Borealis

Borealis is an 84 square metre, net-zero home and was one of two Canadian entries in the 2013 Solar Decathlon competition. It was designed and constructed by more than 100 students from the University of Calgary and Mount Royal University. The project received support from a number of sponsors as well as government. Natural Resources Canada’s CanmetENERGY contributed $12,500 and the province of Alberta and the university each contributed $200,000. Upon return from California, Borealis will eventually be installed at the Mount Royal University campus.

Building Envelope Renewal — Kinesiology Gymnasia

The Kinesiology A Red and Gold gymnasium envelope was upgraded in 2013-14. In addition to a new exterior wall system, programmatic improvements were also incorporated into the existing spaces of the two gymnasia.

MacEwan Student Centre

This project provided upgraded student services and support offices in the MacEwan Student Centre (including revised and expanded facilities for differently abled students) as well as spaces to support accommodated examinations, student mentoring and leadership initiatives.
Through the generous support of government, institutional partnerships, and our community philanthropists, the university has been able to leverage these dollars along with our own internal resources to develop a number of exciting projects across our campuses. Below is a highlight of some of our more critical projects that are currently under construction. Please refer to Section 11.7 of the CIP for a full listing of all our major capital projects that are underway and seeking budget approval for 2014-15.

**Schulich School of Engineering Renewal and Expansion — Phase 2**  
(Total Project Budget (TPB) $162.1 million)

In late 2013, the university announced the single-largest corporate donation in the institution’s history, with a $7.0 million gift from Canadian Natural Resources Limited to the Schulich School of Engineering. The gift will enable the school to provide exceptional learning experiences for students and create an environment in which engineering experts thrive, leading to ground-breaking and widely recognized research. This gift adds to provincial funding of $142.5 million and many smaller donations from alumni and the community for a total project budget of $162.1 million. Construction of the expansion began in the fall of 2013, with an anticipated opening of the first elements in late 2016.
Taylor Institute for Teaching and Learning  
(TPC $40.0 million)

The Taylor Institute is another example of a successful partnership between the University of Calgary and a strong donor community. Through this partnership the university started construction in mid-2013 to transform the former Nickle Arts Museum site into a state-of-the-art teaching and learning facility. It will include a simulation centre for teaching research and professional development, multi-purpose facilities to promote collaboration and sharing of best practices, and collaborative spaces for related research and institute support teams. Project completion is targeted for late 2015.

Education Tower  
(TPC - $15.7 million — Partially funded)

Base-building and programmatic upgrades for the Faculty of Education have progressed in the Education Tower. Funded in part by the exceptional donation from the Werklund Foundation, functional upgrades will happen on multiple floors, continuing through and beyond 2015-16. This project will also include: elevator modernization and extension; emergency and heating systems replacements, and other IMP-funded changes. The education link is also being improved through support from the Werklund donation.
STUDENT RESIDENCES

Family Housing Renewals (TPB $6.8 million)

A major renovation program continues to renew all 240 units of the Family Housing Complex. By holding below maximum tenancy, residents are being rotated into completed units, allowing sequential work phases to be conducted without displacing any permanent occupancy. Completion is expected in the next two to three years.

Phase 7 and Phase 8 New Construction (TPB $87.5 million)

The residence master plan proposes to increase the on-campus student population to 15 per cent of undergraduate full-load enrolment by 2022. Initial execution of this vision is the construction of a new upper-year undergraduate residential housing building (Phase 7) and a new facility for graduate students (Phase 8). Both are targeted for completion in summer 2015.

Foothills Campus (TPB $40.0 million)

The older portions of the facility, in particular the Health Science Centre, continue to undergo selective, high-value redevelopment to support medical research. Much of the funding for these projects is from external sources, including federal grant programs and philanthropic activity. Notable projects include:

- Advanced Teaching Skills Simulation Lab, in partnership with AHS;
- Healthy Brain Aging Research Centre, with the Hotchkiss Brain Institute;
- Live Cell Imaging Centre;
- Mobility Joint Health (MOJO) Project, with a major CFI grant;
- ACHRI developments in HSC and at CDC; and
- Research Facility Code Compliance program.

Minor Faculty and Unit Renewal, and Classroom and Facility Alteration Requests (TPB $39.4 million)

As part of ongoing operations, university units undertake numerous small reconfigurations to better serve evolving teaching, research, and support needs.
PRIORITY CAPITAL PROJECTS
INTERNALLY FUNDED

In 2014-15, the university will be seeking Board approval to proceed on a number of internally funded initiatives, which include but are not limited to:

CLASSROOM ALTERATION REQUEST AND FACILITIES ALTERATION REQUEST (CAR/FAR)

A summary of projects included in our CAR/FAR program are outlined in Table 6. A number of these projects are sequenced with IMP projects identified in our three-year rolling plan. This strategy allows us to leverage our internal resources with IMP funding to deliver these projects in a fiscally prudent manner. These projects improve the functionality of our teaching and research spaces while addressing the preservation and renewal needs located within these spaces.

DAYCARE FACILITY

Demand, coupled with recruitment and retention strategies, strongly suggests more daycare capacity is required on or adjacent to the main campus. Early study work will investigate scale and possible locations. Incorporation into other initiatives will be considered.

Table 6 — Approved 2014-15 CAR/FAR Projects, $ Thousands

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Unit</th>
<th>Program</th>
<th>Total Budget*</th>
<th>Internal Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linguistics, Languages &amp; Culture consolidation</td>
<td>Arts</td>
<td>FAR</td>
<td>539</td>
<td>400</td>
</tr>
<tr>
<td>MacKimmie Complex Study Space Upgrades</td>
<td>All Students</td>
<td>CAR</td>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td>AD Atrium Study Space upgrade</td>
<td>All Students</td>
<td>CAR</td>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td>SH Graduate Student Workspace Upgrade</td>
<td>HSB</td>
<td>CAR</td>
<td>353</td>
<td>353</td>
</tr>
<tr>
<td>Office suite upgrade &amp; clinic relocation</td>
<td>KNES</td>
<td>FAR</td>
<td>226</td>
<td>226</td>
</tr>
<tr>
<td>MFH Classroom Renewal</td>
<td>LAW</td>
<td>CAR</td>
<td>435</td>
<td>400</td>
</tr>
<tr>
<td>MLB Minor Renovation</td>
<td>LCR</td>
<td>FAR</td>
<td>87</td>
<td>87</td>
</tr>
<tr>
<td>Gallagher Library upgrade</td>
<td>LCR</td>
<td>CAR</td>
<td>625</td>
<td>625</td>
</tr>
<tr>
<td>Clara Christie Theatre Upgrade</td>
<td>MED</td>
<td>CAR</td>
<td>752</td>
<td>400</td>
</tr>
<tr>
<td>PFB Study Space redevelopment</td>
<td>NURS</td>
<td>CAR</td>
<td>385</td>
<td>385</td>
</tr>
<tr>
<td>Scholars’ Academy Development</td>
<td>SES</td>
<td>CAR</td>
<td>537</td>
<td>400</td>
</tr>
<tr>
<td>PFB 3Classroom Upgrades</td>
<td>SW</td>
<td>CAR</td>
<td>285</td>
<td>285</td>
</tr>
<tr>
<td>EDT Redevelopment</td>
<td>WSE</td>
<td>FAR</td>
<td>1,942</td>
<td>400</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td><strong>7,114</strong></td>
<td><strong>4,874</strong></td>
</tr>
</tbody>
</table>

*other funding from units, various sources
HIGHEST CAPITAL PRIORITY PROJECTS SEEKING GOVERNMENT SUPPORT

The projects below are intended to outline the scope and funding required to address our identified highest priority projects. Each of these projects support the academic and research aspirations as outlined within the CIP. A comprehensive listing of our capital priorities can be found in Section 9.6 of this chapter and will be used to inform our BLIMS submission for 2015-16, in April of this year. There may be some variation from the CIP and the final BLIMS submission as the university continues to develop project scopes through its advanced planning and design efforts and initiatives.

EXPANSION PROJECTS (RENEWAL AND REPURPOSING)

Priority 1:
MacKimmie Complex Redevelopment
Total Project Estimate: $210.0 million

The upper portion of the MacKimmie Tower remains closed due to Alberta Building Code requirements that call for revised exiting, fire protection and fire suppression. As well, the building envelope and HVAC systems are in critical need of replacement. While MacKimmie Block remains fully occupied, it also requires significant renewal to meet current building code requirements and repurposing to maximize functionality and space utilization.

A strategic renewal plan has been completed for this entire building complex. The university will continue to advance the planning and pre-design activities to complete the space master plan and develop a business case to support the funding request. Coordinated infrastructure and space plans will allow for discrete phasing of the future construction, leading to a complete renewal of the facility in five to seven years, providing critical functional teaching and research space.

Priority 2:
Nursing and Social Work Backfill and Repurposing
Total Project Estimate: $34.5 million

The Faculty of Nursing has experienced tremendous planned growth in recent years, but has insufficient space for current and future operations. Urgent needs for clinical learning spaces were partially addressed in summer 2013 with existing university funding, and temporary space was allocated to the Faculty in a second building. However, a comprehensive facilities solution remains an urgent expansion requirement.

NEW CONSTRUCTION PROJECTS

While we continue to focus on repurposing/expanding existing buildings, we have a recognized space deficit. As such, the construction of new facilities is required to address space shortfalls due to the significant expansion of student numbers in the past 15 years. New construction will also address increasing research productivity and allow for select, targeted expansion of high-demand/high-value programs.

Priority 1:
Life Sciences Resources Centre
Total Project Estimate: $120.0 million

The Life Sciences Resource Centre will be a critical enabler of research and teaching essential to achieve our *Eyes High* goals. Existing core support facilities on the university’s main campus are insufficient to meet current and growing education and research needs. The recently completed programming and master plan for this facility highlight the need for our main campus to centralize our life science resource support and have it connected to our existing facility. This new space will provide capacity for research and teaching activities currently housed in the Administration building (which would then repurposed) as well as the majority of requirements currently in the Biological Science building.

The expanded, upgraded and consolidated space will allow our associated research programs to
achieve efficiencies through the better use of equipment and personnel resources, and ensure continued certification of our facilities. This project will reduce the inefficiencies of having multiple facilities distributed across the campus and provide a more cost-effective model in the support of operation and maintenance of these labs and associated equipment. The approval of this project will position the university to build research strength in the areas of life sciences that include kinesiology, psychology, neurosciences, chronic disease, and environmental toxicology. Research in these areas contribute to three of our six priority research themes.

Priority 2:
Haskayne School of Business Advanced Learning Centre
Total Project Estimate: $95.0 million

The university, in consultation with the faculty, has advanced the concept design work for a stand-alone 10,000-12,000 square metre expansion to accommodate the instructional and research needs identified for the Haskayne School of Business. Philanthropic funding is being sought for future pre-construction and construction phases of the project. Funding from government sources will also be required to create a successful partnership leading to a notable/signature expansion.

MAJOR PRESERVATION PROJECTS

Priority 1:
Science A — Phase 2
Total Project Estimate: $152.0 million

The Science A project renews one of the first two buildings on campus — a 50-year-old structure, providing capacity for upper-year chemistry instruction, chemistry research and support activities (workshops) for the entire Faculty of Science, as well as general academic spaces for the university as a whole. Critical renewal requirements were completed in mid-2013. A portion of the building is not in service.

Priority 2:
MacEwan Hall and Student Centre Redevelopment
Total Project: $31.5 million

Phase 1 of this project, funded and completed in 2011, involved an extensive pre-design review and schematic design exercise within the MacEwan Student Centre (constructed 1987). While the full scope of the study involved facilities that are unsupported by definition, there are supported functions with the buildings. One key element of the supported work involves solving a conflict issue due to the loading docks opening into the Taylor Family Quadrangle. An effective long-term solution has been determined in schematic form, and we wish to proceed through design development to prepare the project for funding submissions. Planning has been coordinated with the new Taylor Institute project, which is proximate to the proposed new loading dock location.

MINOR PRESERVATION PROJECTS

Priority 1:
Deep Utilities
Total Project: $8.0 million

The University of Calgary initiated a comprehensive review of existing main campus deep utilities (water, sanitary sewer and storm water), to inform the development of an integrated water resource management plan. Data collected as a part of this review will inform future planning exercises (including any updates to the campus master plan), and will result in a clear identification of immediate and long-term maintenance and expansion requirements to be acted upon in accordance with such plans. Phase 1 represents critical renewal and capacity building required over the next 3-5 years. The total critical deep utility replacement and upgrade program totals $24 million and would span over 10-15 years in three phases.
Priority 2:
Lab Fume Hoods
Total Project: $3.5 million

As part of our COR program and certification requirements, the university is auditing our fume hoods and there is a requirement to renew some of our hoods to meet current standards. This represents the critical upgrade of approximately 10-15% of our total inventory.

**INFRASTRUCTURE MAINTENANCE PROGRAM**

IMP is a critical program to aid the university in managing its recognized deferred maintenance liability, which is currently just under $450 million for our supported infrastructure. 2013-14 saw a marked decrease in previous funding where IMP support fell from $16 million to $9.9 million (nearly 40 per cent reduction) (Table 7). While we recognize that there are budgetary constraints facing the Government of Alberta, this reduction in IMP funding has significantly impacted our ability to proactively manage and strategically address this liability. If funding levels are not restored, or one-time grant dollars are not available, there will undoubtedly be a marked increase in the university’s deferred maintenance liability.

**TABLE 7 — Infrastructure Maintenance Program (Projected Plans)**

<table>
<thead>
<tr>
<th>Project Summary</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Regulatory &amp; Code Compliance</strong></td>
<td></td>
</tr>
<tr>
<td>Fire Protection</td>
<td>1,600,000</td>
</tr>
<tr>
<td>Code Order Egress or Accessibility</td>
<td>650,000</td>
</tr>
<tr>
<td>Mechanical Asbestos Abatement</td>
<td>1,500,000</td>
</tr>
<tr>
<td>Fume Hood Replacement</td>
<td>500,000</td>
</tr>
<tr>
<td><strong>Sub-total</strong></td>
<td><strong>4,250,000</strong></td>
</tr>
<tr>
<td>Building System Integrity</td>
<td></td>
</tr>
<tr>
<td>Major Building System &amp; Equip Breakdown Contingency</td>
<td>400,000</td>
</tr>
<tr>
<td>Building Automation System</td>
<td>200,000</td>
</tr>
<tr>
<td>Roofing &amp; Skylight</td>
<td>800,000</td>
</tr>
<tr>
<td>Elevator Upgrades</td>
<td>-</td>
</tr>
<tr>
<td><strong>Sub-total</strong></td>
<td><strong>1,400,000</strong></td>
</tr>
<tr>
<td>Targeted Programs</td>
<td></td>
</tr>
<tr>
<td>Washroom Complete</td>
<td>1,000,000</td>
</tr>
<tr>
<td>Washroom Fixture</td>
<td>450,000</td>
</tr>
<tr>
<td>Campus Wide Systems</td>
<td>500,000</td>
</tr>
<tr>
<td><strong>Sub-total</strong></td>
<td><strong>1,950,000</strong></td>
</tr>
<tr>
<td>Targeted Buildings</td>
<td></td>
</tr>
<tr>
<td>Education Complex - Planned Renewal</td>
<td>250,000</td>
</tr>
<tr>
<td>MT / B - Planned Renewal</td>
<td>2,050,000</td>
</tr>
<tr>
<td><strong>Sub-total</strong></td>
<td><strong>2,300,000</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>9,900,000</strong></td>
</tr>
</tbody>
</table>
PLANNING AND EARLY CONCEPT STUDIES FOR 2014-15

Advancing planning and predesign efforts facilitate our ability to provide strategic direction on our capital priorities and finalize project scope to deliver identified teaching and research needs. This in turn creates a solid foundation for building the required business cases required for capital funding. Importantly, it provides a stage for us to respond to funding opportunities as they arise to deliver the critical infrastructure required for our academic and research priorities.

In response to the capital strategies and priorities identified, we are requesting envelope funding of $2.0 to $2.5 million per annum in support of these activities.

MATCHING PROVINCIAL FUNDING FOR EXTERNAL GRANT AWARDS

The university has a strong track record in our pursuit of research grant support for our targeted research activities. After careful consideration and internal adjudication, we will be seeking up to $10.6 million in matching support as we seek these awards from other outside agencies.

OTHER INSTITUTIONAL CAPITAL PRIORITIES

Given current enrolment levels and deferred maintenance liability of the university, there is a quantifiable need for new construction, repurposing of existing space, and functional renewal. In accordance with IAE calculations, the university is short approximately 100,000 square metres of space given our current approved enrolment targets. Our deferred maintenance liability is nearing $450 million dollars, which has a direct correlation to reduced functionality and increased operational risk. With the recent completion of space master plans for each of our faculties, the university will further articulate the long-term capital needs for this fiscal year.

Notwithstanding our noted highest-priority projects, we have identified a number of other priority projects (Table 8) to ensure we achieve the desired outcomes outline within the CIP and our Eyes High vision. This table lists all identified capital priority projects (highest and other) in alphabetical order that will inform our BLIMS submission for 2015-16. As the university continues to develop project scopes through our planning and design efforts, there may be some variation between the information in this table and the final BLIMS submission.
### TABLE 8 — Capital Priority Projects List, $ millions (2014 Construction Dollars)

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Project Description</th>
<th>Estimated Project Budget</th>
<th>Targeted Outside Funding</th>
<th>Funding Request To Government</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EXPANSION/REPURPOSING</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kinesiology Expansion and Renewal</td>
<td>This project will provide needed growth and renewal to support instructional and research activities of the faculty. These facilities also support our varsity, student recreation, and community outreach programs.</td>
<td>260.0</td>
<td>-</td>
<td>260.0</td>
</tr>
<tr>
<td>MacKimmie Complex</td>
<td>The repurposing of this space for the Faculty of Nursing will address critical deferred maintenance, accessibility and buildings code updates. It will also provide for increased space utilization. This has been identified as one of our highest-priority projects.</td>
<td>210.0</td>
<td>-</td>
<td>210.0</td>
</tr>
<tr>
<td>Nursing and Social Work Backfill and Repurposing</td>
<td>Provide for some facility renewal and needed expansion space to accommodate growth in the programs of nursing and social work. This has been identified as one of our highest-priority projects.</td>
<td>34.5</td>
<td>-</td>
<td>34.5</td>
</tr>
<tr>
<td><strong>NEW CONSTRUCTION</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Haskayne School of Business</td>
<td>This facility would provide the Haskayne School of Business critically needed, additional space, to advance and achieve their learning and research outcomes. This has been identified as one of our highest-priority projects.</td>
<td>95.0</td>
<td>40.0</td>
<td>55.0</td>
</tr>
<tr>
<td>Advanced Learning Centre</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Life Sciences Resource Centre</td>
<td>This facility is critical to the support of research and teaching in the areas of life sciences that include kinesiology, psychology, neurosciences, chronic diseases, and environmental toxicology. Centralization of key support facilities for teaching and research will provide not only new space but will also increase operational efficiencies and improve safety. This has been identified as one of our highest-priority projects.</td>
<td>120.0</td>
<td>-</td>
<td>120.0</td>
</tr>
<tr>
<td><strong>MAJOR PRESERVATION</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building Envelope Repair and Replacement (Campus-wide Program)</td>
<td>A significant renewal program is required to provide critical repair and/or replacement of aging building envelopes. This work will remedy functional deficiencies and, in many cases, decrease our operating costs as a result of improved performance. This program is scheduled as an 8-year program.</td>
<td>120.0</td>
<td>-</td>
<td>120.0</td>
</tr>
<tr>
<td>Foothills Campus Critical Maintenance</td>
<td>Significant investment in the renewal of some of the older assets on this campus is required to update mechanical, electrical, research support and life safety system.</td>
<td>35.0</td>
<td>-</td>
<td>35.0</td>
</tr>
<tr>
<td>Information Technology</td>
<td>Continued development of IT infrastructure in support of academic and research programs and the expanding university population.</td>
<td>31.0</td>
<td></td>
<td>31.0</td>
</tr>
<tr>
<td>MacEwan Hall and Student Centre Redevelopment</td>
<td>This renovation will provide improved functionality and resolve existing site conflicts arising from loading dock activities being located along a major pedestrian spine. This has been identified as one of our highest-priority projects.</td>
<td>31.5</td>
<td>-</td>
<td>31.5</td>
</tr>
<tr>
<td>Science A-Phase 2</td>
<td>This project will fully renew of one of our first constructed buildings. It will also allow us to open up areas of the building have been closed. This has been identified as one of our highest-priority projects.</td>
<td>152.0</td>
<td>-</td>
<td>152.0</td>
</tr>
<tr>
<td>Schulich School of Engineering</td>
<td>With Phase 2 completed, this represents the final phase of renewal for this facility and will continue the renewal required to provide purpose-built space for teaching and research.</td>
<td>25.0</td>
<td>-</td>
<td>25.0</td>
</tr>
<tr>
<td>Renewal-Phase 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Major Preservation Total</strong></td>
<td></td>
<td>394.5</td>
<td>-</td>
<td>394.5</td>
</tr>
</tbody>
</table>

University of Calgary Comprehensive Institutional Plan
<table>
<thead>
<tr>
<th>Project Title</th>
<th>Project Description</th>
<th>Estimated Budget</th>
<th>Targeted Outside Funding</th>
<th>Funding Request To Government</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MINOR PRESERVATION</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deep Utility Repairs — Phase 1 (Campus Wide Program)</td>
<td>The University of Calgary initiated a comprehensive review of existing Main Campus deep utilities (water, sanitary sewer and storm water), to inform the development of an Integrated Resource Management (IRM). This funding will provide for addressing critical renewal and capacity upgrades. This has been identified as one of our highest priority projects</td>
<td>8.0</td>
<td>-</td>
<td>8.0</td>
</tr>
<tr>
<td>Deep Utility Repairs — Phase 2/3 (Campus Wide Program)</td>
<td>The University of Calgary initiated a comprehensive review of existing Main Campus deep utilities (water, sanitary sewer and storm water), to inform the development of an Integrated Resource Management (IRM). This funding will provide the envelope required to renew these assets over the next 5-7 years.</td>
<td>16.08</td>
<td>-</td>
<td>16.08</td>
</tr>
<tr>
<td>Education Tower</td>
<td>The project will increase the floor plate efficiency, update classrooms, and address critical deferred maintenance. During fiscal 14/15, the university will finalize an expansion and renewal plan for the Education Block.</td>
<td>16.0</td>
<td>5.0</td>
<td>11.0</td>
</tr>
<tr>
<td>Lab Fume Hoods and Biosafety Cabinets</td>
<td>As part of our COR program and certification requirements, the university is auditing our fume hoods and biosafety cabinets. Through this audit it has been determined that there is a requirement of critical renewal for 10 per cent of our existing inventories to meet current standards. This has been identified as one of our highest-priority projects.</td>
<td>3.5</td>
<td>-</td>
<td>3.5</td>
</tr>
<tr>
<td>Lab Shower and Eye Wash Stations</td>
<td>New emergency stations have been developed that meet the variety of provincial and national regulations, codes and standards. The installation program is expected to run over a three-to-four-year period.</td>
<td>10.0</td>
<td>-</td>
<td>10.0</td>
</tr>
<tr>
<td>RB Miller Field Station</td>
<td>This field station has supported research programs for over 60 years and is in need of a full renewal to ensure it can continue to support its research requirements.</td>
<td>2.0</td>
<td>-</td>
<td>2.0</td>
</tr>
<tr>
<td>Undergraduate Science Centre and Faculty Office</td>
<td>This renovation will provide support to 350 employees and 4600 students through the creation of a student advising centre, while centralizing administrative functions.</td>
<td>8.0</td>
<td>-</td>
<td>8.0</td>
</tr>
<tr>
<td><strong>Minor Preservation Total</strong></td>
<td></td>
<td>63.5</td>
<td>5.0</td>
<td>58.5</td>
</tr>
</tbody>
</table>
Information Technology (IT) is at the core of an innovative and progressive organization.
INTRODUCTION

Information Technology (IT) is at the core of an innovative and progressive organization. The University of Calgary continues to support technology innovation not only as it applies to the administrative requirements of the academy, but more importantly how it enhances and continues to improve the educational and research experience at the university. Critical to the technology strategy is an understanding that technology has a dual responsibility within the academy; the expectation that technology is available, reliable, ubiquitous and innovative is the norm from which all projects and initiatives are based. Additionally, technology must also enable an environment of learning and discovery by supporting the teaching and research communities. Information Technologies has partnered with faculty, researchers and administration to ensure that technology is being used strategically.

Driven by priorities articulated within the Academic Plan, Research Plan, and Foundation Plan, the IT plan described within this chapter begins to lay the foundation for necessary work over the next several years that will form the basis for the institution’s IT funding request to the province.

Strategic investment in technology must be secured for the academy to truly succeed in achieving the university’s Eyes High strategic vision. Several initiatives were successfully completed over the last few years with a focus to remain current and sustain the infrastructure environment. As we move towards our goal of becoming one of Canada’s top five research institutions by 2016 — where research and innovative teaching go hand in hand, and where we fully engage the communities we both serve and lead — increasing demands for technology and innovation will require strategic investments to be made now, with a longer horizon in mind.

2013-14 INFORMATION TECHNOLOGY PLAN REVIEW

As part of our Eyes High vision, we state:

“We will provide expert instruction. The university is home to faculty members, postdoctoral fellows, research technicians and legions of smart, ambitious graduate students who are passionate about knowledge. Their enthusiasm and expertise in the classroom and in the field make them excellent teachers and mentors. We are committed to building on this base by supporting the ongoing development of our educators so they can engage and challenge students through consistently effective and innovative teaching methods.”

It is within the last sentence of this mission statement that IT is able to add value to the university by ensuring that the technology, tools and infrastructure available are up-to-date, reliable and work to enhance the learning environment so that educators can focus their time on knowledge transfer.

In 2013-14, the university started the implementation of a new Learning Management System (LMS) — Desire2Learn (D2L). The D2L implementation project is a profound example of campus-wide collaboration — behaving as “one university family.” Because of the broad impact on various members of the university community, it was essential to involve all stakeholders (students, faculty, and staff) in all aspects of the project plan (design, change management, communications and training). IT recognized early on in the planning phase that D2L was more than just a technology project. Rather, this new learning management system had the potential
to transform core institutional practices, making the project more about the people affected than the technology itself. Understanding the processes, workflows, organizational structure and culture of each faculty was absolutely essential to ensuring user acceptance and adoption of this change.

2013-2014 research investments in the research data library proved successful in highlighting the justification for piloting projects that support multi-site research collaboration. Working with the National Research Council, we were able to prove the potential for research collaboration at a national level. With the successful completion of the pilot, it is expected this project will gain support going forward.

As part of the University of Calgary’s ongoing involvement in the Provincial Health Research Ethics Board (PHREB) initiative, our institutional research information services solution platform for human participant-based ethics certification went live to the Province of Alberta on December 23, 2013. The university is in a unique position as we will not only be providing the service to our own faculty, but also to three external committees under the new provincial board.

The University of Calgary continues to lead and has a vision to remain one of the most energy-efficient campuses in North America based on institutional energy use intensity. This is defined as the total campus energy consumption divided by total floor area (Table 9).

**SHORT-TERM INFORMATION TECHNOLOGY REQUESTS**

Based on previous government funding, an ongoing need has been identified over the next three years to assist the university in the following priority areas. Please see remaining sections for a rationale on each request (Table 10).

**IT INFRASTRUCTURE SUPPORT AND MAINTENANCE**

The overall IT infrastructure of the university requires attention if it is to adequately enable and support increasingly digital modes of teaching, learning and research. While there was funding available for projects completed in 2013-2014, there remains an

### TABLE 9 — Institutional Energy Use Intensity

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2012-13 Actual</th>
<th>2014-15 Target</th>
<th>2016-17 Target</th>
<th>2018-19 Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main campus</td>
<td>2.2</td>
<td>2.0</td>
<td>1.8</td>
<td>1.7</td>
</tr>
<tr>
<td>Foothills campus</td>
<td>3.5</td>
<td>3.2</td>
<td>2.9</td>
<td>2.6</td>
</tr>
<tr>
<td>Satellite campuses</td>
<td>1.0</td>
<td>0.9</td>
<td>0.8</td>
<td>0.7</td>
</tr>
</tbody>
</table>

### TABLE 10 — Information Technology Funding Requests

<table>
<thead>
<tr>
<th>Priority Areas ($M)</th>
<th>Ongoing</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT Infrastructure Support and Maintenance</td>
<td>7.5</td>
</tr>
<tr>
<td>Support for Teaching and Learning</td>
<td>2.5</td>
</tr>
<tr>
<td>Support for Research</td>
<td>2.0</td>
</tr>
<tr>
<td>Classroom Technology</td>
<td>1.2</td>
</tr>
<tr>
<td>Support for Administration</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16.2</strong></td>
</tr>
</tbody>
</table>
ongoing need to sustain these environments. Of particular concern are the core network backbone and in-building wired and wireless networks.

The university is highly dependent on communications infrastructure for day-to-day operations. Organic network growth over the past 20 years, combined with minimal evergreen investment, has resulted in technical infrastructure that is outdated and increasingly incapable of supporting current and future research and teaching requirements. To address our aging infrastructure, investment in the core campus network is required, including specific-building wireless and wired networks, along with management and automation tools. It is essential to provide continued investment in a strategic manner, with a long-term vision and plan to revitalize IT infrastructure, increase operational efficiency and effectiveness, while aligning with sustainability best-practices.

Currently there is no provincial program to renew, replace or upgrade core technology in older facilities at the University of Calgary (or other provincial post-secondary institutions). Such a funding program to maintain and upgrade technology is critical in the increasingly digital learning and research environment. The unfunded areas outlined in Table 11 are important to the ongoing operation and evolution of the institution, and would greatly benefit from such a provincial program.

### TABLE 11 — Core Technology Renewal, Replacement and Upgrade Requirements

| Network Cabling | The physical cabling upgrade is required to enhance data and video services for research, teaching and learning in order to provide an acceptable managed lab and classroom computing environment. In addition, the physical cabling upgrade would support the adoption of cloud computing, facilitate internal connectivity to high performance computing clusters (e.g. WestGrid and other Compute Canada resources), as well as enable VoIP telephone service to all our buildings. |
| Network Devices (Routers and Switches) | The university funded the initial replacement of antiquated network devices. There is, however, an on-going funding requirement to achieve a sustainable seven-year rolling upgrade cycle. |
| Storage | Ongoing investment is required to address significant capacity growth in central storage to support both research and administrative data retention needs, including student records and research data archiving. |
| Ongoing Maintenance and Support Agreements | Evergreen funds are required to support and maintain current systems. The university currently invests $1.6 million in hardware maintenance and $3.4 million in software licensing and maintenance per annum. These investments only address support for current systems and are minimal in comparison with the annual demand for emerging academic requirements that have an IT component. |

### TABLE 12 — Information Technology Investments to Support Research

| Secure archiving of research data | As research data becomes increasingly digital, securing and archiving this digital data becomes critical. Over the next several years, investment is needed to develop a secure digital archive for research data. |
| Research support and enablement systems | Systems such as the research portal that is currently in development and IRISS (software developed at the University of Calgary to support ethics review workflow) reduce the administrative burden on researchers, enabling them to focus more time on discovery, creativity and innovation. Phases 2 and 3 of the portal and IRISS will run through 2015. |
SUPPORT FOR TEACHING AND LEARNING

Technology continually advances and, as it does, places increasing demands on the teaching and learning environment as educators incorporate new digital technologies into classrooms, labs and the overall learning environments. In addition, learners expect educators to deliver content in an increasingly digital, virtual, social and collaborative fashion. Previous funding addressed the technology needs of only 50 per cent of the learning spaces on campus and an ongoing upgrade program is required to standardize the remaining spaces, as well as keep upgraded spaces current.

SUPPORT FOR RESEARCH

Providing the appropriate technology-based tools, services and support to faculty has become as important as giving them the appropriate office and laboratory space. Technology is an essential enabler of scholarship, learning and research. The core IT infrastructure upgrade outlined above will begin to provide a base technology layer to support research activities including data intensive research, e-Research and multi-site research collaboration. Shown in Table 12 are specific investments in support for research.

CLASSROOM TECHNOLOGY

In 2012-13, the University of Calgary upgraded 72 classrooms on campus to meet the institutionally established “smart classroom” standard. For 2013-14 and beyond, a classroom technology upgrade request process was initiated and run in alignment with the institutional classroom and facilities alteration requests processes (CAR and FAR). Aligning classroom technology upgrade requests with classroom alteration requests ensures that scarce funds are allocated in the most efficient manner possible. The 2012 funding addressed the technology needs of only 25 per cent of the learning spaces on campus and an ongoing upgrade program is required to bring the remaining learning spaces to standard and then to keep all the learning spaces current. The investment in classroom technology upgrades combined with the core campus network and higher-density Wi-Fi coverage for large classrooms and lecture theatres will enable access to collaborative learning tools and support increased use of mobile devices by both faculty and students and use of new tools, such as lecture capture, in the classroom.

SUPPORT FOR ADMINISTRATION

The continued implementation of IT shared services will allow us to efficiently and effectively support faculty and staff research and teaching, student learning, and university administration. By centralizing and standardizing base-level technology and IT services, we will support the university in a consistent, agile and cost-efficient manner without losing sight of:

- teaching and learning outcomes;
- providing tools to facilitate collaboration with external agencies (e.g. other universities, research agencies, government, etc.);
- high-performance computing resources; and
- individual faculty technology requirements for teaching, research and innovation.

ERP Systems

As follow-on to the recent finance and human resources system upgrades, there are additional modules and functionality that are required to evolve and streamline university administrative processes. These include the following: governance, risk and control software; student system improvements; improved research, financial and student reporting; and an improved university directory. These projects will form the basis of a long-range roadmap for our core systems, ensuring we realize the benefits of our already-substantial investments.

Faculty Projects

Although a significant portion of our application landscape is managed within the PeopleSoft system, there are other important application investments required to support the core academic function of the university. These include applications such as research pre-award processing, space-planning,
and academic performance review. These projects have been requested by faculties and units as part of our annual planning process, and will directly benefit research and student communities as well as our operational business units.

**Standardization and Rationalization of Faculty Applications**

Investment is required to transition and rationalize the multiple, duplicate point solutions that are being transitioned from our faculties and units into central IT as part of the shared services (integrated services) model.

**Capital Information Technology Requests**

**Data Centre**

Research demands for additional capacity for Information Technology operations require that investigation of building a new research data centre begin immediately, with the expectation that a new facility would be available within the next five to 10 years. Due to size and power limitations, it is not possible to expand or grow within the existing facilities. The University of Calgary expects to lead the innovation by proposing and designing a world-class data centre that is both scalable and cost efficient. These targets will be difficult to achieve in harmony, but with engagement of our university community, it is a goal that can be realized. The following elements are the design are goals that should be investigated:

- A scalable design that allows for agile, responsive and cost-effective expansion. We envision:
  - a state-of-the-art HVAC system (outside air cooling or geothermal cooling, replacing traditional mechanical cooling processes);
  - Individual racks (heat captured could be re-used in a greenhouse or for other heating needs);
  - High-efficiency electrical transformation and distribution in an inexpensive recycled metal building.

**Common Desktop Environment**

To provide better support, reliability and availability, as well as drastically reduced costs, we need to standardize our desktop environment (both hardware and software). The current lack of standardization makes necessary upgrades from vendors and suppliers almost impossible and causes disruptions and inconsistencies in basic technology (e.g., email). A common desktop environment reduces IT’s sustainment costs and also enables economies of scale and scope with vendors.
We are presenting a balanced budget for the university in fiscal year 2014-15 with expenditures of $1,218.0 million, and forecasting a balanced budget in 2015-16 and in 2016-17.
STATEMENT OF EXPECTED REVENUES AND EXPENSES

The University of Calgary has a strong strategic vision in *Eyes High*, and excellent roadmaps in the Academic Plan and Research Plan that provide 10 strategic priorities that guide the overall allocation of financial, human and capital resources. Over the past six years we have made significant progress with our financial situation. Previously, the university had negative $57.6 million in unrestricted net assets, which caused us to set a strategic target to build unrestricted net assets to five per cent of the consolidated budget or approximately $64.0 million. As a result of much work on the part of many people at the university and our new performance and results-based budget model developed in the prior year, we created a sound financial foundation from which to advance our *Eyes High* strategic vision.

In fiscal 2013-14, the government grant for the university was reduced by $31.9 million or 7.3 per cent. While this reduction was partially mitigated by a mid-year increase of $10.6 million or 2.62 per cent, the cuts that were required to balance the budget in 2013-14 were deep and difficult, and would not have been managed without our financial foundation. While a flat budget with significant one time funding was welcomed in March 2014 the negative impact of the volatility of government funding continues to be a challenge to achieving our academic and research priorities as the university strives to achieve financial sustainability and stability.

Currently, we are projecting an unrestricted net assets balance of $91.4 million for the year ending March 31, 2014. This number is positive and allows us to invest strategically to advance our *Eyes High* vision by drawing down our unrestricted net assets balance with targeted one-time strategic initiatives. It does not, however, address the issue of the many expenses that require continued or base funding.

The university plans to reduce the unrestricted net asset balance over the next three years to our targeted balance of five per cent of the consolidated budget. These fully funded initiatives will not cause a deficit in the consolidated budget for 2014-15. These investments in strategic initiatives will be made in the priority areas as outlined in the Academic Plan and Research Plan. These investments from unrestricted net assets will not affect our long-term financial sustainability as they are one-time funding allocations.

We will continue to explore alternate ways to function to ensure maximum benefit from the money we receive. However, we believe one key to our financial stability is the need for stable government funding. Additionally, for the university to be financially sustainable, these grants should reflect reasonable increases in 2014-15 and 2015-16. Despite significant efforts to mitigate expenses, our salary and benefit costs are rising faster than the projected revenue growth in 2014-15 and beyond; a return to modest growth in the Campus Alberta grant is required as one component of the overall solution to balance the budget.

We are presenting a balanced budget for the university in fiscal year 2014-15 with expenditures of $1,218.0 million (Table 13), and forecasting a balanced budget in 2015-16 and in 2016-17. In order to accomplish this, we have assumed a nominal increase in base funding to the Government of Alberta grant in 2015-16 and 2016-17.

University unit budgets have a foundational component (e.g. government grant and tuition) and variable components including research funding,
development dollars, ancillary services, and other creative entrepreneurial options that units may devise. One of our main objectives was to increase the amount of our overall investment in our priorities.

As suggested earlier, we are making a choice to invest a portion of our unrestricted net assets in the priority areas of our Eyes High strategic vision (Table 14).

Beginning in 2014-15, the capital initiatives funded from unrestricted net assets include amounts for compliance to support research activities, enhancements to the campus, and the student experience. We will also undertake additional investment in systems supporting budgeting, forecasting, and student recruitment and management.

### TABLE 13 — Consolidated Budget and Two-year Forecast for 2014-15

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Government of Alberta grants</td>
<td>598,794</td>
<td>580,827</td>
<td>593,989</td>
<td>607,872</td>
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<tr>
<td>Federal and other government grants</td>
<td>136,458</td>
<td>139,926</td>
<td>145,617</td>
<td>151,578</td>
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<tr>
<td>Sales of services and products</td>
<td>103,745</td>
<td>112,597</td>
<td>114,616</td>
<td>116,671</td>
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<tr>
<td>Student tuition and fees</td>
<td>202,846</td>
<td>218,225</td>
<td>220,407</td>
<td>222,611</td>
</tr>
<tr>
<td>Donations and other grants</td>
<td>96,140</td>
<td>126,206</td>
<td>131,668</td>
<td>137,115</td>
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<td>Investment income</td>
<td>40,083</td>
<td>42,952</td>
<td>43,806</td>
<td>44,686</td>
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<tr>
<td>Investment loss in government business enterprises</td>
<td>-</td>
<td>(2,720)</td>
<td>(2,400)</td>
<td>(1,200)</td>
</tr>
<tr>
<td><strong>Total Revenue</strong></td>
<td>1,178,066</td>
<td>1,218,013</td>
<td>1,247,703</td>
<td>1,279,333</td>
</tr>
<tr>
<td>Expenses</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic costs and institutional support</td>
<td>710,431</td>
<td>754,411</td>
<td>767,297</td>
<td>781,398</td>
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<tr>
<td>Research</td>
<td>272,042</td>
<td>279,097</td>
<td>292,550</td>
<td>306,674</td>
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<tr>
<td>Special purpose and trust</td>
<td>81,023</td>
<td>69,159</td>
<td>70,406</td>
<td>71,672</td>
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<tr>
<td>Facilities operation and maintenance</td>
<td>67,209</td>
<td>66,035</td>
<td>67,224</td>
<td>68,432</td>
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<tr>
<td>Ancillary services</td>
<td>47,361</td>
<td>49,311</td>
<td>50,226</td>
<td>51,157</td>
</tr>
<tr>
<td><strong>Total Expenses</strong></td>
<td>1,178,066</td>
<td>1,218,013</td>
<td>1,247,703</td>
<td>1,279,333</td>
</tr>
<tr>
<td>Excess (shortfall) of revenue over expenses</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Shortfall funded by internally restricted net assets</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Shortfall funded by unrestricted net assets</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Surplus (deficit)</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

### TABLE 14 — Unrestricted Net Assets

<table>
<thead>
<tr>
<th>($thousands)</th>
<th>Budget 2014-15</th>
<th>Forecast 2015-16</th>
<th>Forecast 2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening unrestricted net assets</td>
<td>91,373</td>
<td>79,447</td>
<td>72,547</td>
</tr>
<tr>
<td>Shortfall funded by unrestricted net assets</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Capital initiatives funded by unrestricted net assets</td>
<td>11,926</td>
<td>6,900</td>
<td>8,580</td>
</tr>
<tr>
<td>Closing unrestricted net assets</td>
<td>79,447</td>
<td>72,547</td>
<td>63,967</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-------------------</td>
<td>----------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Salaries</td>
<td>569,140</td>
<td>588,615</td>
<td>607,726</td>
</tr>
<tr>
<td>Employee benefits</td>
<td>109,719</td>
<td>114,028</td>
<td>118,009</td>
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<tr>
<td>Materials, supplies, and services</td>
<td>251,479</td>
<td>264,426</td>
<td>264,295</td>
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<tr>
<td>Utilities</td>
<td>28,622</td>
<td>29,851</td>
<td>30,389</td>
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<tr>
<td>Maintenance and repairs</td>
<td>18,134</td>
<td>20,566</td>
<td>20,955</td>
</tr>
<tr>
<td>Scholarships and bursaries</td>
<td>77,171</td>
<td>78,283</td>
<td>80,852</td>
</tr>
<tr>
<td>Cost of goods sold</td>
<td>17,735</td>
<td>16,182</td>
<td>16,474</td>
</tr>
<tr>
<td>Amortization of capital assets</td>
<td>106,066</td>
<td>106,062</td>
<td>109,003</td>
</tr>
<tr>
<td><strong>Total Expenses</strong></td>
<td><strong>1,178,066</strong></td>
<td><strong>1,218,013</strong></td>
<td><strong>1,247,703</strong></td>
</tr>
</tbody>
</table>
Government of Alberta Grants include all operating, research, and other funding from the Government of Alberta, including revenues recognized from previously deferred Government of Alberta grants.

Grants from the Government of Alberta (Innovation and Advanced Education) are budgeted to account for $580.8 million or 47.7 per cent of total revenue for 2014-15 (Figure 6). The Campus Alberta grant portion of the total Government of Alberta grant was initially decreased by 7.3 per cent in 2013-14 with a mid-year increase of 2.6 per cent, and is anticipated to remain flat for 2014-15 with two per cent growth in both 2015-16 and 2016-17. We are forecasting sponsored research revenue to increase in all categories, including Government of Alberta research-related grants.

Federal and other government grants include all funding and revenue recognized from the federal government, municipalities, foreign governments, and other provincial organizations residing in provinces outside Alberta.

Federal and other government grants will make up $139.9 million or 11.5 per cent of our total revenue for 2014-15. Research revenue makes up $99.1 million or 70.8 per cent of federal and other government grants. Research revenue is forecasted to increase significantly as the university strives to reach its goal of becoming a top-five research institutions by 2016-17.
SALES OF SERVICES AND PRODUCTS

Sales of services and products include ancillary revenues relating to secondary services available to students, faculty and staff, such as on-campus residence, food services, university bookstores, micro-store, Hotel Alma, parking services, and conference services. In addition, sales of services and products include rental income, management fees, and other faculty-generated revenues. The sales of services and products budget for 2014-15 is $112.6 million or 9.2 per cent of total revenues.

Sales of services and products continue to grow as we develop alternative revenue sources to support the activities of the university.

STUDENT TUITION AND FEES

Student tuition and fees include all income related to for-credit and non-credit tuition and related fees.

Student tuition and fees for 2014-15 are budgeted to be $218.2 million or 17.9 per cent of total revenue, with a one per cent increase in tuition rates implemented for the 2014-15 year based on guidance from the Ministry of Innovation and Advanced Education (IAE).

DONATIONS AND OTHER GRANTS

Donations and other grants include all donations and grants received from individuals and businesses recognized as revenue during the period, including the revenues recognized from previously deferred donations and other grants.

Donations and other grants are budgeted to account for $126.2 million or 10.4 per cent of total revenues for 2014-15 as we continue to establish aggressive targets for fundraising. Accurately budgeting for donations is difficult due to the nature of fundraising.

INVESTMENT INCOME

Investment income includes dividends, interest income, and realized gains or losses on the sale of investments. The investment income budget for 2014-15 is $43.0 million or 3.5 per cent of total revenues.

Investment income is comprised of income from the university’s working capital pool as well as endowment-related income. Investment income for the University of Calgary’s working capital will continue to be influenced by interest rates, prevailing market conditions and the research commercialization of the University’s subsidiaries. The university’s endowment income will be influenced by interest rates for the fixed-income portion of the fund and by the volatility of the equity markets for the equity portion. For a long-term fund to maintain real value and generate sufficient income to support endowment programs, evidence dictates that a diversified portfolio must be structured to include asset classes that have some risk and volatility.

INVESTMENT LOSS IN GOVERNMENT BUSINESS ENTERPRISES

University Technologies Group (UTI) and West Campus Development Corporation (WCDC) are wholly-owned subsidiaries of the University of Calgary. UTI Group operates to facilitate the transfer of intellectual property from the university to private business, thereby commercializing the scientific innovations of University scholars. The WCDC operates as trustee of the West Campus Development Trust (the Trust), which will sublease land to developers for the commercialization of residential and commercial development. The university is the beneficiary of the Trust and will receive distributions from the Trust once leases are in place with developers. In 2014-15 the budget for investment loss in government business enterprises is a loss of $2.7 million or 0.2 per cent of revenues.
PROJECTED EXPENSE — BY FUNCTION

<table>
<thead>
<tr>
<th>Function</th>
<th>2013 - 14</th>
<th>2014 - 15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic costs and institutional support</td>
<td>60.3%</td>
<td>61.9%</td>
</tr>
<tr>
<td>Research</td>
<td>23.1%</td>
<td>22.9%</td>
</tr>
<tr>
<td>Special purpose and trust</td>
<td>6.9%</td>
<td>5.7%</td>
</tr>
<tr>
<td>Facilities operation and maintenance</td>
<td>5.7%</td>
<td>5.4%</td>
</tr>
<tr>
<td>Ancillary services</td>
<td>4.0%</td>
<td>4.0%</td>
</tr>
</tbody>
</table>

ACADEMIC COSTS AND INSTITUTIONAL SUPPORT

Academic costs and institutional support is the single-largest function at the university and effectively represents the operating activities of the university. Expenses include activities that directly and indirectly support innovative learning, programming, and teaching, as well as university administration, and governance functions. For 2014-15, the academic costs and institutional supports budget is $754.4 million or 61.9 per cent of total expenses.

RESEARCH

Research expenses relate primarily to activity funded by externally sponsored research funds intended for specific research purposes as well as internal funds designated for research-related spending. For 2014-15, the research budget is $279.1 million or 22.9 per cent of total expenses.

SPECIAL PURPOSE AND TRUST

Special purpose and trust is composed of expenses relating to externally restricted funding for non-research related university activities. The special purpose and trust budget for 2014-15 is $69.2 million or 5.7 per cent of total expenses.

FACILITIES OPERATIONS AND MAINTENANCE

The facilities operations and maintenance function includes centralized management, maintenance of the grounds and facilities, and buildings. Examples include utilities, facilities administration, building maintenance, custodial services, landscaping and grounds-keeping, and major repairs and renovations. The facilities operations and maintenance budget for 2014-15 is $66.0 million or 5.4 per cent of total expenses.

ANCILLARY SERVICES

Ancillary expenses relate to secondary services available to students, faculty, and staff. Services include on-campus residence, food services, parking services, university bookstores, micro-store, Hotel Alma, and conference services. For 2014-15, the ancillary services budget is $49.3 million or four per cent of total university expenses.
Salaries and benefits represent the largest investment at the University of Calgary. For 2014-15, salary and benefits are budgeted to be $702.6 million or 57.7 per cent of total expenses.

Materials, supplies, and services represent the second-largest university expense. For 2014-15, the materials budget is $264.4 million or 21.7 per cent of total expenses. The research component of this budget is $86.5 million or 32.7 per cent for 2014-15.

Utilities

The utilities budget is $29.9 million or 2.5 per cent of total expenses for 2014-15. Our hedging strategy, combined with lower natural-gas prices, and recent and ongoing energy savings initiatives like the cogeneration plant (which allows the university to produce utilities internally at a lower rate), has provided for some stability within the utilities budget.

Maintenance and repairs

The maintenance and repairs budget for 2014-15 is $20.6 million or 1.7 per cent of total expenses. With the magnitude of outstanding deferred maintenance and an aging physical plant the maintenance and repair budget has been increasing over the past few years. The funds allocated through the existing Infrastructure Maintenance Program are not adequate to meet the current and growing deferred maintenance of the university’s buildings and infrastructure.

Scholarships and bursaries

The scholarships and bursaries budget for 2014-15 is $78.3 million or 6.4 per cent of total expenses. The sponsored research and other restricted component of this budget is $50.1 million or 64.0 per cent.
COST OF GOODS SOLD

The cost of goods sold budget for 2014-15 is $16.2 million or 1.3 per cent of total expenses. This expenditure item represents the cost of sales of services and products by the university.

AMORTIZATION OF CAPITAL ASSETS

Amortization represents the gradual reduction in the useful life of the university’s asset pools, a portion of which is expensed each year. One noteworthy change in accounting under Public Sector Accounting Standards is the portion of amortization expense relating to externally restricted grants is no longer equally offset by revenue in amortization of earned capital contributions (ECC), but is equally offset by the recognition of revenue in the line items of the areas that provided the capital funding (e.g. Government of Alberta grants). Given the large number of capital grants received to fund the university’s capital program, a greater proportion of amortization expense will be offset by revenue in future years. The amortization of capital assets budget for 2014-15 is $106.1 million or 8.7 per cent of total expenses.
BUDGETED CASH FLOW STATEMENT

The budgeted cash flow statement records the amount of cash and cash equivalents projected to enter and leave the University of Calgary in 2014-15 (Table 16). It provides an understanding of how the institution is operating, where its resources are coming from, and how they will be spent in the following four areas: 1) operating activities, 2) capital transactions, 3) investing activities, and 4) financing activities.

TABLE 16 — Budgeted Cash Flow Statement for 2014-15

<table>
<thead>
<tr>
<th>($thousands)</th>
<th>Budget 2014-15</th>
<th>Forecast 2015-16</th>
<th>Forecast 2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operating Transactions</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excess Of Revenue Over Expense</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Add (Deduct) Non-Cash Items:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amortization Of Capital Assets</td>
<td>106,062</td>
<td>109,003</td>
<td>112,126</td>
</tr>
<tr>
<td>Expended Capital Recognized As Revenue</td>
<td>(77,673)</td>
<td>(80,068)</td>
<td>(82,636)</td>
</tr>
<tr>
<td>Increase In Employee Future Benefit Liabilities</td>
<td>2,241</td>
<td>2,241</td>
<td>2,241</td>
</tr>
<tr>
<td><strong>Total Non-Cash Items</strong></td>
<td>30,630</td>
<td>31,176</td>
<td>31,731</td>
</tr>
<tr>
<td>Net Change In Non-Cash Working Capital Less Expended Capital Recognized As Revenue</td>
<td>144,972</td>
<td>144,791</td>
<td>144,999</td>
</tr>
<tr>
<td><strong>Cash Provided By Operating Transactions</strong></td>
<td>175,602</td>
<td>175,967</td>
<td>176,730</td>
</tr>
<tr>
<td>Capital Transactions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acquisition Of Capital Assets</td>
<td>(260,449)</td>
<td>(202,920)</td>
<td>(133,725)</td>
</tr>
<tr>
<td>Proceeds On Sale Of Capital Assets</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Cash Applied To Capital Transactions</strong></td>
<td>(260,449)</td>
<td>(202,920)</td>
<td>(133,725)</td>
</tr>
<tr>
<td>Investing Transactions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchases Of Investments, Net Of Sales</td>
<td>(114,246)</td>
<td>(136,370)</td>
<td>(158,494)</td>
</tr>
<tr>
<td>Change In Investment In Government Business Enterprises</td>
<td>2,720</td>
<td>2,400</td>
<td>1,200</td>
</tr>
<tr>
<td>Endowment Investment Earnings</td>
<td>11,678</td>
<td>12,740</td>
<td>12,802</td>
</tr>
<tr>
<td><strong>Cash Applied To Investing Transactions</strong></td>
<td>(99,848)</td>
<td>(121,230)</td>
<td>(144,492)</td>
</tr>
<tr>
<td>Financing Transactions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Endowment Donations</td>
<td>35,000</td>
<td>40,000</td>
<td>45,000</td>
</tr>
<tr>
<td>Debt — Repayment</td>
<td>(21,570)</td>
<td>(22,129)</td>
<td>(22,583)</td>
</tr>
<tr>
<td>Debt — New Financing</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Cash Provided By Financing Transactions</strong></td>
<td>13,430</td>
<td>17,871</td>
<td>22,417</td>
</tr>
<tr>
<td>Increase (Decrease) In Cash And Cash Equivalents</td>
<td>(171,265)</td>
<td>(130,312)</td>
<td>(79,070)</td>
</tr>
<tr>
<td>Cash And Cash Equivalents, Beginning Of Year</td>
<td>428,805</td>
<td>257,540</td>
<td>127,228</td>
</tr>
<tr>
<td><strong>Cash And Cash Equivalents, End Of Year</strong></td>
<td>257,540</td>
<td>127,228</td>
<td>48,158</td>
</tr>
</tbody>
</table>

CAPITAL BUDGET

Our total expected investment in learning resources, systems, furnishings and equipment and infrastructure for 2014-15 is $260.4 million (Table 17). Approximately $213.5 million or 82 per cent of the funding required to support these capital projects comes from external sources.
Learning resources refer to library assets with permanent value, museum specimens, archival materials, and maps that are held for education and research purposes.

**SYSTEMS (IT)**

IT refers to applications and infrastructure necessary to enhance the student experience, support research excellence, and ensure business continuity. IT includes network cabling and devices, telephone systems, data centres, support for teaching, learning and research, and administrative systems.

**FURNISHINGS AND EQUIPMENT**

Furnishings and equipment refer to movable items not attached to buildings that have estimated useful lives of three to 10 years. Furnishings and equipment includes items such as desks, chairs, shelving, classroom technology, lab equipment, computers, etc.

**INFRASTRUCTURE**

Infrastructure refers to the construction of capital assets and site improvements. It includes costs directly attributable to architectural, engineering, and legal fees, as well as construction materials and labour. Infrastructure typically has an estimate useful life of 20 to 40 years.
# INFRASTRUCTURE BUDGET

## Table 18 — Infrastructure Budget (2014-15)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Major Capital Projects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schulich School of Engineering Renovation &amp; Expansion</td>
<td>2,757</td>
<td>9,300</td>
<td>45,600</td>
<td>162,095</td>
</tr>
<tr>
<td>Graduate Residence - Phase 8</td>
<td>188</td>
<td>375</td>
<td>29,880</td>
<td>50,400</td>
</tr>
<tr>
<td>The Taylor Institute for Teaching and Learning</td>
<td>6,800</td>
<td>40,000</td>
<td>17,118</td>
<td>40,000</td>
</tr>
<tr>
<td>Network Upgrades and Information Technology (IT) backbone</td>
<td>11,685</td>
<td>24,000</td>
<td>7,169</td>
<td>23,500</td>
</tr>
<tr>
<td>Undergraduate Residence - Phase 7</td>
<td>187</td>
<td>375</td>
<td>21,995</td>
<td>37,100</td>
</tr>
<tr>
<td>ACWA Pine Creek Project Phase 1</td>
<td>14,184</td>
<td>35,030</td>
<td>1,834</td>
<td>35,047</td>
</tr>
<tr>
<td>Resolute Bay Incoherent Scatter Radar (RISR)</td>
<td>1,868</td>
<td>5,200</td>
<td>7,169</td>
<td>24,470</td>
</tr>
<tr>
<td>ACWA Pine Creek Project Phase 2</td>
<td>14,184</td>
<td>6,520</td>
<td>3,382</td>
<td>21,000</td>
</tr>
<tr>
<td>Resolute Bay Incoherent Scatter Radar (RISR)</td>
<td>1,868</td>
<td>4,000</td>
<td>5,860</td>
<td>15,675</td>
</tr>
<tr>
<td>Way finding</td>
<td>200</td>
<td>12,000</td>
<td>2,800</td>
<td>12,000</td>
</tr>
<tr>
<td>Research Facility Code Compliance</td>
<td>3,200</td>
<td>10,000</td>
<td>4,200</td>
<td>10,000</td>
</tr>
<tr>
<td>ACHRI CDC - 3rd floor fit out</td>
<td>-</td>
<td>-</td>
<td>6,111</td>
<td>9,425</td>
</tr>
<tr>
<td>Family Housing Renewal</td>
<td>6,240</td>
<td>6,800</td>
<td>3,465</td>
<td>6,800</td>
</tr>
<tr>
<td>Campus Alberta Innovates Program (CAIP)</td>
<td>5,439</td>
<td>5,779</td>
<td>821</td>
<td>5,867</td>
</tr>
<tr>
<td>Advanced Technical Skills Simulation Laboratory (ATSSL)</td>
<td>3,629</td>
<td>5,230</td>
<td>356</td>
<td>5,630</td>
</tr>
<tr>
<td>Healthy Brain Aging Facility (HBA)</td>
<td>4,379</td>
<td>4,800</td>
<td>4,426</td>
<td>4,800</td>
</tr>
<tr>
<td>Live Cell Imaging Facility</td>
<td>2,885</td>
<td>3,200</td>
<td>906</td>
<td>4,232</td>
</tr>
<tr>
<td>ACHRI CDC - 3rd floor fit out</td>
<td>-</td>
<td>-</td>
<td>2,605</td>
<td>3,183</td>
</tr>
<tr>
<td>Foothills Campus Redevelopment</td>
<td>1,353</td>
<td>194,301</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Small EEEL funded Projects</td>
<td>2,167</td>
<td>28,158</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Accommodation Plan Phase 2</td>
<td>8,034</td>
<td>14,040</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Building Envelope Renewal Program</td>
<td>4,673</td>
<td>9,787</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Classroom Technology Upgrades</td>
<td>1,200</td>
<td>3,400</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>MacEwan Student Centre 4th Floor Redevelopment</td>
<td>2,250</td>
<td>2,600</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Small TFDL funded projects</td>
<td>250</td>
<td>2,211</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Yamnuska Hall - Tenant Fit-out</td>
<td>1,156</td>
<td>1,759</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Classrooms &amp; Facilities Alteration Requests (CAR/FAR)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013-14 CAR/FAR and Faculty/Unit contributions</td>
<td>5,911</td>
<td>23,741</td>
<td>490</td>
<td>4,789</td>
</tr>
<tr>
<td>2014-15 CAR/FAR and Faculty/Unit contributions</td>
<td>-</td>
<td>-</td>
<td>4,050</td>
<td>5,000</td>
</tr>
<tr>
<td>2015-16 program and future years</td>
<td>-</td>
<td>-</td>
<td>500</td>
<td>15,500</td>
</tr>
<tr>
<td><strong>Infrastructure Maintenance Program (IMP)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infrastructure Maintenance Program (IMP)</td>
<td>19,937</td>
<td>60,554</td>
<td>9,937</td>
<td>81,374</td>
</tr>
<tr>
<td><strong>Minor Faculty and Unit Renewal Projects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013-14 Projects</td>
<td>5,777</td>
<td>9,984</td>
<td>887</td>
<td>8,261</td>
</tr>
<tr>
<td>2014-15 Projects</td>
<td>-</td>
<td>-</td>
<td>7,435</td>
<td>10,885</td>
</tr>
<tr>
<td><strong>Planning</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty Master Plans</td>
<td>1,245</td>
<td>1,500</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Infrastructure Budget Total</strong></td>
<td>118,206</td>
<td>538,482</td>
<td>195,909</td>
<td>610,480</td>
</tr>
</tbody>
</table>
BUDGET ASSUMPTIONS, RISKS AND SENSITIVITY

REVENUE ASSUMPTIONS AND RISKS

The following revenue assumptions and risks have been identified:

- We have assumed that the Campus Alberta operating grant will be flat in 2014-15, and increase by two per cent in both 2015-16 and 2016-17.
- All other sources of government funding, including other agencies or business entities that are not IAE-related, will increase modestly with inflation over the remaining two years of the plan.
- We expect to generate positive returns in the investment market sufficient to sustain endowment expenditure levels.
- We anticipate receiving a similar level of support from the Federal Indirect Costs of Research program.
- Our budget is based on the assumption that we will achieve the established enrolment targets.
- Tuition increases in 2014-15, 2015-16, and 2016-17 are based on forecast changes to the Alberta Consumer Price Index as defined in the tuition fee regulation. The weighted average of tuition increases over the forecast period is assumed to grow at the expected rate of inflation of one per cent annually.

EXPENSE ASSUMPTIONS AND RISKS

The following expense assumptions and risks have been identified:

- The forecast contains a reasonable estimate for salary and benefit cost increases; the results of future collective bargaining negotiations are unknown.
- As salary and benefits account for 57.7 per cent of our total expenditures any variance in salary and benefit assumptions will have a significant impact on the university’s operating budget.
- With a significant deferred maintenance liability and an aging physical plant, expensive emergency repairs will become unavoidable.
- A number of faculty positions are supported through external funding. While this is beneficial, there are risks that the funding will be discontinued and the university will be required either to assume responsibility or discontinue positions.
- While the university’s efforts on energy performance initiatives and overall hedging strategy are designed to reduce utilities costs and provide certainty in costs, future increases in natural gas, water, and electricity prices or unusually high/low seasonal temperatures are a constant expenditure risk for the university.

BUDGET SENSITIVITY ANALYSIS

Table 19 illustrates the effect of a one per cent change in our current-year budget assumptions for a few key revenue and expenditure categories and the potential outcome. For example, a one per cent increase in our Campus Alberta grant would increase total revenue by $4.2 million whereas a one per cent increase in salaries would increase total expenditures by $5.9 million.

<table>
<thead>
<tr>
<th>Table 19 — Budget Sensitivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>($M)</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>Campus Alberta Grant</td>
</tr>
<tr>
<td>Student tuition and fees</td>
</tr>
<tr>
<td>Salaries</td>
</tr>
<tr>
<td>Benefits</td>
</tr>
</tbody>
</table>
TUITION AND FEES

The Government of Alberta’s Public Post-Secondary Institutions’ Tuition Fees Regulation provides a framework for setting tuition fees at the University of Calgary. Through our tuition-fee policy response to the regulation, we commit to setting fees at levels that support student access and affordability, encourage quality in teaching, provide for learning in a scholarly environment, and ensure no student is denied access for lack of institutional, governmental or personal resources:

1. Looking to other sources of revenue first: The focus of several strategies within this plan is the generation of revenue from sources other than tuition. These include government funding, research revenue, and fundraising. We ensure that fees remain reasonable and predictable in a manner that enables students and the institution to plan their finances.

2. Being cost-effective: Central to the success of this plan is the reallocation of internal resources and the reduction of costs wherever possible. Through the strategies described within this plan, we remain committed to providing quality programs and services in a cost-effective manner.

3. Carefully considering the impact of tuition increases: Decisions to increase tuition fees are made only after carefully considering the impacts they will have on students, program costs, market demand, and fee levels at peer institutions. Other factors include information about the student-assistance environment, accessibility to and participation in university education, graduate debt loads and repayment experience, graduate employment rates, and the return on investment in university education.

4. Positioning increases within the context of the total revenue profile: Proposals to change tuition levels are made in the context of the total operating revenue available to the University of Calgary, the need to produce balanced budgets, and the need to maintain and enhance the quality, accessibility, and affordability of the student experience.

Consistent with section 3 of the Public Post-Secondary Institutions’ Tuition Fees Regulation, the University of Calgary established a process for holding consultations with students to discuss annual increases in tuition fees. That process is led by a tuition and fees consultation committee (TFCC), which is chaired by the Provost and Vice-President (Academic), and includes representatives of student organizations and administration to ensure open two-way communication on matters related to tuition and general fees is included in the annual budget process. This committee typically meets bi-weekly between September and December, but has continued to meet between January and April 2014 to examine other course fees at our institution. Thus, through TFCC in the past year, we have examined all fees for students related to instructional and non-instructional purposes, and we have streamlined the approval process for both types of fees.

The Public Post-Secondary Institutions’ Tuition Fees Regulation sets the maximum tuition fee increase at the level of the year-over-year (June to June) increase in the Alberta Consumer Price Index (CPI). For June 2012 to June 2013, this increase was one per cent. This increase to tuition was approved at our December 2013 Board meeting. Tuition rates in future years at this time are planned to increase at an estimated rate of inflation. Shown in the following tables are approved and projected tuition fees.
### TABLE 20 — Tuition Fees (Canadians and Permanent Residents)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>5 courses (30 units)</td>
<td>5,332.80</td>
<td>5,385.90</td>
<td>5,439.76</td>
<td>5,494.16</td>
<td>5,549.10</td>
</tr>
<tr>
<td>5 half courses (15 units)</td>
<td>2,666.40</td>
<td>2,692.95</td>
<td>2,719.88</td>
<td>2,747.08</td>
<td>2,774.55</td>
</tr>
<tr>
<td>4 half courses (12 units)</td>
<td>2,133.12</td>
<td>2,154.36</td>
<td>2,175.90</td>
<td>2,197.66</td>
<td>2,219.64</td>
</tr>
<tr>
<td>3 half courses (9 units)</td>
<td>1,599.84</td>
<td>1,615.77</td>
<td>1,631.93</td>
<td>1,648.25</td>
<td>1,664.73</td>
</tr>
<tr>
<td>1 course (6 units)</td>
<td>1,066.56</td>
<td>1,077.18</td>
<td>1,087.95</td>
<td>1,098.83</td>
<td>1,109.82</td>
</tr>
<tr>
<td>1 half course (3 units)</td>
<td>533.28</td>
<td>538.59</td>
<td>543.98</td>
<td>549.42</td>
<td>554.91</td>
</tr>
<tr>
<td>B. Comm. 200-500 with Market Mod.</td>
<td>769.71</td>
<td>777.42</td>
<td>785.19</td>
<td>793.04</td>
<td>800.97</td>
</tr>
<tr>
<td>Net BCOMM Market Modifier Amount</td>
<td>236.43</td>
<td>238.83</td>
<td>241.21</td>
<td>243.62</td>
<td>246.06</td>
</tr>
<tr>
<td>Law</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Fees (36 units)</td>
<td>12,192.84</td>
<td>12,314.88</td>
<td>12,438.02</td>
<td>12,562.40</td>
<td>12,688.02</td>
</tr>
<tr>
<td>Per Session (18 units)</td>
<td>6,096.42</td>
<td>6,157.44</td>
<td>6,219.01</td>
<td>6,281.20</td>
<td>6,344.01</td>
</tr>
<tr>
<td>Law - Full Course (6 units)</td>
<td>2,032.14</td>
<td>2,052.48</td>
<td>2,073.00</td>
<td>2,093.74</td>
<td>2,114.68</td>
</tr>
<tr>
<td>Law - Half Course (3 units)</td>
<td>1,016.07</td>
<td>1,026.24</td>
<td>1,036.50</td>
<td>1,046.87</td>
<td>1,057.34</td>
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<tr>
<td>Medicine</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum</td>
<td>14,863.54</td>
<td>15,012.18</td>
<td>15,162.30</td>
<td>15,313.92</td>
<td>15,467.06</td>
</tr>
<tr>
<td>Per Session</td>
<td>7,431.77</td>
<td>7,506.09</td>
<td>7,581.15</td>
<td>7,656.96</td>
<td>7,733.53</td>
</tr>
<tr>
<td>Post Graduate Medical</td>
<td>480.43</td>
<td>485.23</td>
<td>490.08</td>
<td>494.98</td>
<td>499.93</td>
</tr>
<tr>
<td>Max per year (12 months)</td>
<td>960.86</td>
<td>970.46</td>
<td>980.16</td>
<td>989.96</td>
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<td>Total Tuition Fees (per 8 month year)</td>
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<td>Co-op / Internship Education</td>
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<td>Co-operative Education Max 3 Terms</td>
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<td>4 month work term (15 units)</td>
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<td>423.00</td>
<td>427.23</td>
<td>431.50</td>
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<td>Internship Max 3 Terms</td>
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<td>4 month work term (15 units)</td>
<td>418.80</td>
<td>423.00</td>
<td>427.23</td>
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<td>PhD Degree</td>
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<td>5,649.44</td>
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<td>Subsequent Years Fee &amp; Continuing Fee</td>
<td>1,611.30</td>
<td>1,627.38</td>
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<td>Min. Program Fee (Course-based)</td>
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<td>Full Course</td>
<td>1,415.40</td>
<td>1,429.56</td>
<td>1,443.86</td>
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<td>Half Course</td>
<td>707.70</td>
<td>714.78</td>
<td>721.93</td>
<td>729.15</td>
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<td>Half Course Audit Rate</td>
<td>353.85</td>
<td>357.39</td>
<td>360.96</td>
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<td>11,463.12</td>
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<td>1,289.46</td>
<td>1,302.33</td>
<td>1,315.35</td>
<td>1,328.50</td>
<td>1,341.79</td>
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<td>Half Course — (Market Modifier)</td>
<td>1,607.07</td>
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<td>1,655.74</td>
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<td>Program Full-Time Annual Fee</td>
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<td>20,492.88</td>
<td>20,697.81</td>
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<td>Program Part-Time Annual Fee</td>
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<td>Per course fee for non-MPP students</td>
<td>1,600.00</td>
<td>1,615.98</td>
<td>1,632.14</td>
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<td>Course fee for MPP who do not pass</td>
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<td>Block Week</td>
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<td>1,413.99</td>
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**TABLE 21 — Other Tuition Fees (Canadians and Permanent Residents)**

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<td><strong>Bachelor of Community Rehabilitation</strong></td>
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<td>1 half course</td>
<td>533.28</td>
<td>537.00</td>
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<td><strong>CORE 6XX.XX Course Section</strong></td>
<td>1,199.40</td>
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<td>1,224.12</td>
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<td>1,248.72</td>
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<td><strong>PDBN Nursing</strong></td>
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<td>Special Section of Nursing NURS 543</td>
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<td><strong>English for Academic Purposes (EAP)</strong></td>
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<td>3 Units — Domestic Student</td>
<td>533.28</td>
<td>538.59</td>
<td>543.98</td>
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<td>3 Units — International Student</td>
<td>1,210.50</td>
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<td><strong>Bridge to Teaching (formerly TAC)</strong></td>
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<td>per 3 unit course, fee</td>
<td>892.76</td>
<td>902.00</td>
<td>911.02</td>
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<td><strong>Master of Cont. Education (Discontinued)</strong></td>
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<td>Fall or Winter Fee</td>
<td>428.88</td>
<td>434.00</td>
<td>438.34</td>
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<td>Spring or Summer</td>
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<td>217.00</td>
<td>219.17</td>
<td>221.36</td>
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<td>Total Annual Fee (12 Months)</td>
<td>1,286.64</td>
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<td>1,315.02</td>
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<td><strong>Executive MBA (per 8 month year)</strong></td>
<td>27,880.72</td>
<td>28,160.00</td>
<td>28,441.60</td>
<td>28,726.02</td>
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<td><strong>Executive MBA Global Energy Program Fee</strong></td>
<td>105,000.00</td>
<td>106,050.00</td>
<td>107,110.50</td>
<td>108,181.61</td>
<td>109,263.43</td>
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<td><strong>Graduate Division of Educational Research</strong></td>
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<td><strong>EdD Online. HEA, HEL, LEAD, TECH WAL</strong></td>
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<td>Year 1 - 4 (per 12 month year) Program</td>
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<td>Continuing (per 12 month year, yrs. 5+)</td>
<td>4,000.86</td>
<td>4,041.00</td>
<td>4,081.41</td>
<td>4,122.22</td>
<td>4,163.44</td>
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<td><strong>GER Continuing Fees (Anniversary Term per 12 month year)</strong></td>
<td>1,199.40</td>
<td>1,212.00</td>
<td>1,224.12</td>
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<td>1,248.72</td>
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<td><strong>Master of Counselling, CAAP, Applied Psychology</strong></td>
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<td>Annual Program Fee</td>
<td>1,562.40</td>
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<td>3 Unit Fee CAAP Course</td>
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<td>1,212.00</td>
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<td>1,248.72</td>
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<td>One-time fee on admit term</td>
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<td>488.00</td>
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<td>Continuing Fees on 4th year onward at anniversary</td>
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<td>1,164.00</td>
<td>1,175.64</td>
<td>1,187.40</td>
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<td>4 month Term</td>
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<td>2,797.00</td>
<td>2,824.97</td>
<td>2,853.22</td>
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<tr>
<td>Continuing Fees (Year 3+) per 4 month Term</td>
<td>805.61</td>
<td>814.00</td>
<td>822.14</td>
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<td><strong>MSc in Sustainable Energy Development</strong></td>
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<td>SEDV Domestic Calgary (per course)</td>
<td>1,765.23</td>
<td>1,785.00</td>
<td>1,802.85</td>
<td>1,820.88</td>
<td>1,839.09</td>
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<td><strong>Master of Architecture</strong></td>
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### Table 22 — Tuition Fees (International Students)

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<td>5 courses (30 units)</td>
<td>18,157.50</td>
<td>18,338.40</td>
<td>18,521.78</td>
<td>18,707.00</td>
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<td>5 half courses (15 units)</td>
<td>9,078.75</td>
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<td>4 half courses (12 units)</td>
<td>7,263.00</td>
<td>7,335.36</td>
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<td>3 half courses (9 units)</td>
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<td>5,501.52</td>
<td>5,556.54</td>
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<td>1 course (6 units)</td>
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<td>1 half course (3 units)</td>
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<td>1,870.70</td>
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<td>1 half course (3 units) Audit Rate</td>
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<td>B. Comm. 200-500 level Market Mod.</td>
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<td><strong>Total Fees (36 units)</strong></td>
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<td><strong>40,929.84</strong></td>
<td><strong>41,339.14</strong></td>
<td><strong>41,752.53</strong></td>
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<td><strong>Per Session (18 units)</strong></td>
<td><strong>20,262.42</strong></td>
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<td>Law - Half Course (3 units)</td>
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<td><strong>Maximum</strong></td>
<td><strong>57,012.30</strong></td>
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<td><strong>58,739.83</strong></td>
<td><strong>59,327.22</strong></td>
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<td>Medicine</td>
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<td>Per Session</td>
<td>28,506.15</td>
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<td><strong>Vet Medicine (per 8 month year)</strong></td>
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<td>Total Fees</td>
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<td>Co-operative Education Max 3 Terms</td>
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<td>4 month work term (15 units)</td>
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<td><strong>Internship Max 3 Terms</strong></td>
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<tr>
<td>4 month work term (15 units)</td>
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<td>1,451.67</td>
<td>1,466.19</td>
<td>1,480.85</td>
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<td><strong>GRADUATE</strong></td>
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<tr>
<td><strong>Full Time Graduate (except MBA)</strong></td>
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<tr>
<td>PhD Degree</td>
<td>12,570.24</td>
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<td>12,822.84</td>
<td>12,951.07</td>
<td>13,080.58</td>
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<tr>
<td>Master’s Degree with Thesis</td>
<td>12,570.24</td>
<td>12,695.88</td>
<td>12,822.84</td>
<td>12,951.07</td>
<td>13,080.58</td>
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<tr>
<td>Subsequent Years Fee &amp; Continuing Registration</td>
<td>3,656.88</td>
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<td><strong>Course-Based &amp; Part-Time (except MBA):</strong></td>
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<td>3,277.73</td>
<td>3,310.51</td>
<td>3,343.62</td>
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<td>27,880.72</td>
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<td>28,725.53</td>
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<td>Graduate Division of Educational Research</td>
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<td>EdD Online. HEA, HEL, LEAD, TECH WAL</td>
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<tr>
<td>Year 1 - 4 (per 12 month year) Program Fee</td>
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<td>14,685.96</td>
<td>14,832.82</td>
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<td>Continuing (per 12 month year, years 5+)</td>
<td>5,181.98</td>
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<td>GDER Continuing Fees</td>
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<tr>
<td>(Anniversary Term per 12 month year)</td>
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<td>1,235.75</td>
<td>1,248.11</td>
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<td>International Calgary (per course)</td>
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<td>Program Annual Fee</td>
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**TABLE 23 — Non-Calendared Tuition Fees (International Students)**
### TABLE 24 — General Fees — Fall or Winter (Undergraduate Students)

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</tr>
<tr>
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<td>49.29</td>
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<td>52.31</td>
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</tr>
<tr>
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<td>120.00</td>
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<tr>
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</table>

Campus Recreation and athletics rate increase assumption for 2015-16 through 2017-18 = 2.0% annually. The U-Pass Fee for Fall 2014 is $120. The fee for Winter 2015 and beyond has yet to be determined.
### TABLE 25 — General Fees — Spring or Summer (Undergraduate Students)

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<td>17.95</td>
<td>18.31</td>
<td>18.68</td>
<td>19.05</td>
</tr>
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</tr>
<tr>
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</tr>
</tbody>
</table>

Campus Recreation and athletics rate increase assumption for 2015-16 through 2017-18 = 2.0% annually.
The U-Pass Fee for Fall 2014 is $120. The fee for Winter 2015 and beyond has yet to be determined.

### TABLE 26 — General Fees — Yearly (Graduate Students)

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</tr>
<tr>
<td>Donation</td>
<td>10.00</td>
<td>10.00</td>
<td>10.00</td>
<td>10.00</td>
<td>10.00</td>
</tr>
<tr>
<td>Student Services</td>
<td>300.00</td>
<td>450.00</td>
<td>450.00</td>
<td>450.00</td>
<td>450.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,453.95</td>
<td>1,638.31</td>
<td>1,641.39</td>
<td>1,644.53</td>
<td>1,647.73</td>
</tr>
<tr>
<td><strong>Part Time</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduate Students Association (GSA)</td>
<td>105.67</td>
<td>114.64</td>
<td>114.64</td>
<td>114.64</td>
<td>114.64</td>
</tr>
<tr>
<td>Campus Recreation</td>
<td>103.38</td>
<td>105.60</td>
<td>107.71</td>
<td>109.87</td>
<td>112.06</td>
</tr>
<tr>
<td>Athletics</td>
<td>47.32</td>
<td>48.32</td>
<td>49.29</td>
<td>50.27</td>
<td>51.28</td>
</tr>
<tr>
<td>Donation</td>
<td>10.00</td>
<td>10.00</td>
<td>10.00</td>
<td>10.00</td>
<td>10.00</td>
</tr>
<tr>
<td>Student Services</td>
<td>100.00</td>
<td>150.00</td>
<td>150.00</td>
<td>150.00</td>
<td>150.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>366.37</td>
<td>428.56</td>
<td>431.64</td>
<td>434.78</td>
<td>437.98</td>
</tr>
</tbody>
</table>

Campus Recreation and athletics rate increase assumption for 2015-16 through 2017-18 = 2.0% annually.
The U-Pass Fee for Fall 2014 is $120. The fee for Winter 2015 and beyond has yet to be determined.
### TABLE 27 — Residence Rates

<table>
<thead>
<tr>
<th>Phase</th>
<th>Studios</th>
<th>1 Bedroom</th>
<th>2 Bedroom</th>
<th>4 Bedroom</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phase II Norquay, Brewster, &amp; Castle Halls</strong></td>
<td>6,388</td>
<td>7,303</td>
<td>5,489</td>
<td>5,049</td>
</tr>
<tr>
<td>2013-14</td>
<td>6,516</td>
<td>7,449</td>
<td>5,654</td>
<td>5,200</td>
</tr>
<tr>
<td>2014-15</td>
<td>6,646</td>
<td>7,598</td>
<td>5,767</td>
<td>5,304</td>
</tr>
<tr>
<td>2015-16</td>
<td>6,779</td>
<td>7,750</td>
<td>5,882</td>
<td>5,410</td>
</tr>
<tr>
<td>2016-17</td>
<td>6,915</td>
<td>7,905</td>
<td>6,000</td>
<td>5,518</td>
</tr>
<tr>
<td>2017-18</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Phase III Olympus Hall, Glacier Hall</strong></td>
<td>7,140</td>
<td>7,828</td>
<td>6,372</td>
<td>6,502</td>
</tr>
<tr>
<td>2013-14</td>
<td>7,319</td>
<td>7,985</td>
<td>6,627</td>
<td>6,762</td>
</tr>
<tr>
<td>2014-15</td>
<td>7,465</td>
<td>8,145</td>
<td>6,760</td>
<td>6,897</td>
</tr>
<tr>
<td>2015-16</td>
<td>7,615</td>
<td>8,308</td>
<td>6,895</td>
<td>7,035</td>
</tr>
<tr>
<td>2016-17</td>
<td>7,767</td>
<td>8,474</td>
<td>7,033</td>
<td>7,176</td>
</tr>
<tr>
<td>2017-18</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Phase IV Cascade Hall</strong></td>
<td>7,412</td>
<td>6,314</td>
<td>5,879</td>
<td>6,502</td>
</tr>
<tr>
<td>2013-14</td>
<td>7,783</td>
<td>6,630</td>
<td>6,173</td>
<td>6,762</td>
</tr>
<tr>
<td>2014-15</td>
<td>7,939</td>
<td>6,763</td>
<td>6,296</td>
<td>6,897</td>
</tr>
<tr>
<td>2015-16</td>
<td>8,097</td>
<td>6,898</td>
<td>6,422</td>
<td>7,036</td>
</tr>
<tr>
<td>2016-17</td>
<td>8,259</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017-18</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Phase V International House</strong></td>
<td>6,906</td>
<td>6,401</td>
<td>6,401</td>
<td>6,906</td>
</tr>
<tr>
<td>2013-14</td>
<td>7,251</td>
<td>6,721</td>
<td>6,721</td>
<td>7,251</td>
</tr>
<tr>
<td>2014-15</td>
<td>7,396</td>
<td>6,855</td>
<td>6,855</td>
<td>7,396</td>
</tr>
<tr>
<td>2015-16</td>
<td>7,544</td>
<td>6,993</td>
<td>6,993</td>
<td>7,544</td>
</tr>
<tr>
<td>2016-17</td>
<td>7,695</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017-18</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Phase VI — Yamnuska (Suite Style)</strong></td>
<td>6,401</td>
<td>6,738</td>
<td>6,401</td>
<td>6,906</td>
</tr>
<tr>
<td>2013-14</td>
<td>6,721</td>
<td>7,075</td>
<td>6,721</td>
<td>7,251</td>
</tr>
<tr>
<td>2014-15</td>
<td>6,855</td>
<td>7,217</td>
<td>6,855</td>
<td>7,396</td>
</tr>
<tr>
<td>2015-16</td>
<td>6,993</td>
<td>7,361</td>
<td>6,993</td>
<td>7,544</td>
</tr>
<tr>
<td>2016-17</td>
<td>7,132</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017-18</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Traditional Kananaskis Hall &amp; Rundle Hall</strong></td>
<td>5,271</td>
<td>6,401</td>
<td>5,271</td>
<td>6,401</td>
</tr>
<tr>
<td>2013-14</td>
<td>5,535</td>
<td>7,075</td>
<td>5,535</td>
<td>7,075</td>
</tr>
<tr>
<td>2014-15</td>
<td>5,646</td>
<td>7,217</td>
<td>5,646</td>
<td>7,217</td>
</tr>
<tr>
<td>2015-16</td>
<td>5,759</td>
<td>7,361</td>
<td>5,759</td>
<td>7,361</td>
</tr>
<tr>
<td>2016-17</td>
<td>5,874</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017-18</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Student Family Housing Town Home</strong></td>
<td>1,097</td>
<td>1,206</td>
<td>1,250</td>
<td>1,097</td>
</tr>
<tr>
<td>2013-14</td>
<td>1,152</td>
<td>1,267</td>
<td>1,312</td>
<td>1,152</td>
</tr>
<tr>
<td>2014-15</td>
<td>1,175</td>
<td>1,292</td>
<td>1,338</td>
<td>1,175</td>
</tr>
<tr>
<td>2015-16</td>
<td>1,199</td>
<td>1,318</td>
<td>1,365</td>
<td>1,199</td>
</tr>
<tr>
<td>2016-17</td>
<td>1,223</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017-18</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Academic year contracts are for eight months starting at the commencement of the Fall Term and ending in April.
Residence rate increase assumption for 2015-16 through 2017-18 = 2.0% annually.

### TABLE 28 — Meal Plan Rates

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sampler</td>
<td>2,080</td>
<td>2,153</td>
<td>2,196</td>
<td>2,240</td>
<td>2,285</td>
</tr>
<tr>
<td>Lighter Side</td>
<td>3,025</td>
<td>3,131</td>
<td>3,194</td>
<td>3,257</td>
<td>3,323</td>
</tr>
<tr>
<td>Standard</td>
<td>3,685</td>
<td>3,814</td>
<td>3,890</td>
<td>3,968</td>
<td>4,047</td>
</tr>
<tr>
<td>Standard Plus</td>
<td>3,990</td>
<td>4,130</td>
<td>4,213</td>
<td>4,297</td>
<td>4,383</td>
</tr>
<tr>
<td>Ultimate</td>
<td>4,640</td>
<td>4,802</td>
<td>4,898</td>
<td>4,996</td>
<td>5,096</td>
</tr>
</tbody>
</table>

Meal plan rate increase assumption for 2015-16 through 2017-18 = 2.0% annually.
Demand for programs at the University of Calgary has been growing significantly as evidenced by the ratios of applicants to offers of admission.
Through our planning process, we identified significant challenges that may slow progress toward the achievement of our Eyes High vision. We highlight these challenges within this chapter because our plan to reduce or mitigate their impact involves the Government of Alberta as a strategic partner in the achievement of goals for the post-secondary education system in Alberta. These plans are guided by the academic and research priorities we outlined in the Eyes High chapter.

PROGRAM DEMAND

THE CHALLENGE

Calgary is consistently the region with the highest number of “turnaways” among qualified applicants for spots in post-secondary programs. Demand for programs at the University of Calgary has been growing significantly as evidenced by the ratios of applicants to offers of admission. This application pressure is only expected to increase given the rapid rate of population growth in Calgary. By population, Calgary is the largest city in Alberta and the third-largest municipality and fourth-largest metropolitan area in Canada. The metropolitan population of Calgary is projected to grow from 1.1 million to 1.5 million by 2019. Planning for this growth is an essential element of sustainable management of the post-secondary sector.

THE PLAN

In August 2013, we submitted program expansion proposals in education, engineering, law, medicine, nursing, social work and graduate education for an additional 1,292 Full-Load Equivalent (FLE) students over the next four years that represent necessary investments in post-secondary educational capacity that will contribute to the economic and social development of Alberta. Programs for expansion were selected on the basis of learner and employer demand, and in some cases uniqueness to the University of Calgary. The ongoing funding request to government associated with these proposals is $17.4 million at steady state. According to the Campus Alberta Planning Resource, the University of Calgary enrolment is above the physical capacity. However, we believe that we can manage this new enrolment through an examination of space utilization on our campus and an exploration of alternate delivery mechanisms.

We were pleased that of these proposals, we received $3.8 million in the 2014 budget for 339 FLEs in a variety of programs. This tranche of money will grow to $9.6 million at program maturity, funding 1031 FLEs. We were disappointed that there was no new money for health related programs, particularly those in medicine and nursing. We would encourage the Ministry to consider these programs for funding envelopes in the future, given the needs in the health care system.

We are poised to do more, but know that if we are to accommodate the growth expected in Calgary over the coming years we will need to continue to expand our physical infrastructure.
FACILITIES AND MAINTENANCE

THE CHALLENGE

While our campus infrastructure has undergone a modest expansion over the past few years, our total space inventory still falls short of that required to meet the needs of an expanding and evolving academy and the growth anticipated in Calgary. Over the past decade the university has expanded access to address strong student demand, resulting in an enrolment that is now above our existing capacity. The Ministry of Innovation and Advanced Education has estimated that by 2020-21, the University of Calgary will have the largest projected space shortage within the Campus Alberta system. Our faculty space master-planning initiative revealed space shortages in a number of Faculties and academic support units. Additionally, with almost 50 per cent of our physical infrastructure over 40 years of age strategic investment is necessary to preserve our valuable assets. The Infrastructure Maintenance Program grant that we receive from the province is critical to addressing our deferred maintenance liability, which is currently just under $450 million. However, the almost 40 per cent cut to this grant in 2013-14 significantly impacted our ability to proactively manage and strategically address this liability. If funding levels are not restored there will be a marked increase in our deferred maintenance liability.

THE PLAN

Guided by the priorities articulated within our Academic and Research Plans, we are seeking $667.6 million to support for our highest-priority capital projects (Table 29).

<table>
<thead>
<tr>
<th>Project Category</th>
<th>Rank</th>
<th>Project Description</th>
<th>Funding Request to Government</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expansion/Repurposing</td>
<td>1</td>
<td>MacKimmie Complex</td>
<td>210.0</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Nursing and Social Work Backfill and Repurposing</td>
<td>34.5</td>
</tr>
<tr>
<td>New Construction</td>
<td>1</td>
<td>Life Sciences Resource Centre</td>
<td>120.0</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Haskayne School of Business Advanced Learning Centre</td>
<td>95.0</td>
</tr>
<tr>
<td>Major Preservation</td>
<td>1</td>
<td>Science A-Phase 2</td>
<td>152.0</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>MacEwan Hall and Student Centre Redevelopment</td>
<td>31.5</td>
</tr>
<tr>
<td>Minor Preservation</td>
<td>1</td>
<td>Deep Utility Repairs (Campus Wide Program)</td>
<td>8.0</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Lab Fume Hoods and Biosafety Cabinets</td>
<td>3.5</td>
</tr>
<tr>
<td>Other Capital Funding Considerations</td>
<td>1</td>
<td>Grant Matching (CFI/LOF)</td>
<td>10.6</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Planning: Campus Master Planning &amp; Initial Project Activities</td>
<td>2.5</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td>667.6</td>
</tr>
</tbody>
</table>
FINANCIAL SUSTAINABILITY

THE CHALLENGE

Our ability to innovate was put to the test this year. The 2013 provincial budget resulted in a 7.3% cut (approximately $32M) to our Campus Alberta Grant. Given that we were expecting a promised 2% increase, the grant was $41M less than expected. In addition, $6M was cut from our Infrastructure Maintenance Program (IMP) grant. The University of Calgary was in relatively strong financial shape prior to the 2013 provincial budget announcement, but cuts of this magnitude have significant impact on our ability to progress on our strategic vision outlined in Eyes High. We appreciate that 2.62% was restored in November, 2013. While a flat budget with significant one time funding was welcomed in March 2014 the negative impact of the volatility of government funding continues to be a challenge to achieving our academic and research priorities as the university strives to achieve financial sustainability and stability.

THE PLAN

The government sent a message with Budget 2013 that the current model of post-secondary education is not sustainable. We want to partner with the government on a new model of post-secondary education. The government can enable us to move towards a new financially sustainable model of post-secondary education by doing the following:

- Developing a new funding model that differentiates amongst institutions.
- Conducting a discussion province wide on first principles that should be used in assessing tuition, and then using those principles to develop a new tuition regulation for the province.
- Allowing us to innovate and collaborate with the private sector on key research platform ideas.

As a key contributor to the economy of our region and a member of Campus Alberta, we take this challenge as an opportunity to play a leadership role in the responsible restructuring of post-secondary education in this province. To allow us to play that role more effectively, we are seeking reinstatement of the Government of Alberta’s commitment to a three-year funding model for the post-secondary system to allow for greater certainty and an increase to our IMP grant to the 2012-13 level (Table 30).

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Funding Request to Government</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three-year funding model (annual ongoing cost)</td>
<td>8.3</td>
</tr>
<tr>
<td>Infrastructure Maintenance Program (IMP)</td>
<td>6.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14.3</strong></td>
</tr>
</tbody>
</table>
**INFORMATION TECHNOLOGY**

**THE CHALLENGE**

The university is highly dependent on IT infrastructure for day-to-day operations. Organic network growth over the past 20 years, combined with minimal evergreen investment, have resulted in technical infrastructure that is outdated and increasingly incapable of supporting current and future research and teaching requirements. To address our aging infrastructure, investment in the core campus network is required, including specific-building wireless and wired networks, along with management and automation tools.

**THE PLAN**

Currently there is no provincial program to renew, replace or upgrade core technology in older facilities at the University of Calgary (or other provincial post-secondary institutions). Such a funding program to maintain and upgrade technology is critical in the increasingly digital learning and research environment. As we move towards our goal of becoming one of Canada’s top five research institutions by 2016, it is clear that investments must be made now to support our teaching and research communities. A need has been identified for ongoing funding to assist the university in the following priority areas (Table 31).

**PENSION LIABILITY**

**THE CHALLENGE**

The university participates with other Alberta post-secondary institutions in the Universities Academic Pension Plan (UAPP) to provide pensions for participating faculty and staff. The extrapolated actuarial deficiency for the pension plan at March 31, 2013 was $1,149.2 million (2012 - $1,153.3 million) with the pre-1992 portion of the deficiency making up 66.7% ($766.6 million). The unfunded deficiency for service prior to January 1, 1992 is separately disclosed as this portion of the unfunded liability was accrued while the pension plan was managed by the Government of Alberta prior to the UAPP becoming a multi-sponsored plan. This pre-1992 unfunded deficiency is financed by an additional contribution of 1.25% of salaries by the Government of Alberta and the employees and employers equally sharing the balance of the contributions of 2.34% in order to eliminate the unfunded deficiency by 2043.

Other employees at the university participate in the Public Sector Pension Plan (PSPP). Given the large number of employers participating in PSPP and the resultant complexities in calculating accurate information relating to each participant’s share of any unfunded liability, employers were

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**TABLE 31 — Information Technology — Base Funding Request to Government, $ Millions**

<table>
<thead>
<tr>
<th>Priority Areas</th>
<th>Funding Request to Government</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT Infrastructure Support and Maintenance</td>
<td>7.5</td>
</tr>
<tr>
<td>Support for Teaching and Learning</td>
<td>2.5</td>
</tr>
<tr>
<td>Support for Research</td>
<td>2.0</td>
</tr>
<tr>
<td>Classroom Technology</td>
<td>1.2</td>
</tr>
<tr>
<td>Support for Administration</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16.2</strong></td>
</tr>
</tbody>
</table>
unable to isolate their portion of the total unfunded deficiency at December 31, 2012 of $1,645.1 million (2011 - $1,790.4 million). This unfunded liability represents a risk that both employer and employee contribution rates could increase in the near future.

### TABLE 32 — Resource Implications — Total Funding Request to Government, $ Millions

<table>
<thead>
<tr>
<th>Priority Areas</th>
<th>Base</th>
<th>One-time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Sustainability</td>
<td>14.3</td>
<td>-</td>
</tr>
<tr>
<td>Information Technology</td>
<td>16.2</td>
<td>-</td>
</tr>
<tr>
<td>Facilities and Maintenance</td>
<td>-</td>
<td>667.6</td>
</tr>
<tr>
<td>Pre-1992 Pension Liability</td>
<td>9.0</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>39.5</td>
<td>667.6</td>
</tr>
</tbody>
</table>

**THE PLAN**

We would ask that the Government of Alberta provide $9.0 million annually to support the contributions to eliminate the pre-1992 unfunded deficiency by 2043.
The purpose of this chapter is to identify the measures that we will use to monitor our progress across the domains of people, research, engagement, environment and teaching. The challenge we encounter in doing so is common among large, comprehensive research institutions – selecting measures that assess the breadth of our programs, the impact of our scholarship, the extent of our mandate, and the complexity of our organization.

To be successful, a valid and adequate set of performance measures would need to balance measurement along quantitative and qualitative dimensions and reflect different facets of our organization. Given the absence of data in some areas of the academy, the tendency would be to select measures most readily available and easily manipulated. The tendency to count things that can be counted and to discount those that cannot is at the center of much of the scrutiny about university performance measurement.

Our approach addresses this challenge through the selection of measures that we believe have horizontal and vertical validity and that are associated with our key thematic areas (Figure 9). By horizontal validity we mean applicability across the institution so that these measures are just as meaningful in the characterization of achievement for physicists as for mathematicians, political scientists, art historians, and musicians. By vertical validity we mean measures applicable at all levels of the academy. By thematic areas we mean measures clustered around our priorities. Selecting measures in this way is intended to ensure that they apply equally well to the individual faculty member as to departments, faculties, and to the university.

It is important to note that the measures we have chosen are not simply internal comparisons of progress over time. Rather, they include comparisons across universities in a manner that compares like with like. Like with like includes comparisons that take into account the relative size of the institution. Thus, we include absolute measures as well as measures adjusted for the typical number of tenure and tenure-track faculty members. We selected the Canadian U15 group of research universities, in particular the top 5, to align with our vision to be a top 5 research institution by 2016. In most of our measures we include three targets — the score for the 5th ranked institution in the U15, the average score of the top 5 U15 institutions, and our stretch target for 2015-16 (Figure 9). In the case of teaching, we have chosen to delay the selection of a measure until we complete a discussion of teaching metrics on our campus. The final challenge in examining progress through metrics is that of timing. Typically because of data collection procedures there is a time lag in obtaining performance metrics. Thus the performance metrics that are reported here are from 2012-13, and they typically reflect impact of work done in many cases in 2011-12. As we look towards achieving the goals we have set for our 50th anniversary in 2016, it is worth noting that the data to assess our success may not become available until some time after that date.

Universities are under increased scrutiny and should be accountable for their performance. The following performance measures could serve as a rubric for results-based budgeting in the future (Figure 10). We have achieved Top 5 status across 18 of 40 performance measures. Numerical measures tell only part of the story, however. Therefore, at the start of each section we highlight the achievements of a select set of individuals and groups whose accomplishments provide examples of our progress towards excellence.
### Performance Measures

#### People
- Ratio of applicants to student intake
- Average entering grade
- Graduate proportion of total enrolment
- International proportion of total enrolment (undergraduate)
- International proportion of total enrolment (graduate)
- Student to faculty ratio (total)
- Student to faculty ratio (graduate)
- Postdoctoral Fellows (total)
- Postdoctoral Fellows (per tenure and tenure-track faculty)

#### Research
- Sponsored research revenue (total)
- Sponsored research revenue (per tenure and tenure-track faculty)
- Tri-council research revenue (total)
- Tri-council research revenue (per tenure and tenure-track faculty)
- Publications (total)
- Publications (per tenure and tenure-track faculty)
- Citations (total)
- Citations (per tenure and tenure-track faculty)
- New invention disclosures
- New licenses

#### Engagement
- Undergraduate student engagement (NSSE) (first year)
- Undergraduate student engagement (NSSE) (fourth year)
- Graduate student engagement (CGPSS)
- Graduate satisfaction
- Degrees awarded
- Employment rate (total)
- Employment rate (employed in related jobs)
- Employee engagement

#### Environment
- Fundraising
- Endowment
- Unrestricted net assets
- Facilities condition index
- Sustainability tracking, assessment and rating system

#### Teaching
- Under construction
- Retention rate
- Graduation rate (undergraduate, master’s, PhD)
- Time to completion (undergraduate)
- Time to completion (master’s, PhD)

= TOP 5
PERFORMANCE MEASURES: PEOPLE

Rhodes Scholars

Nine University of Calgary students were shortlisted for the prestigious Rhodes Scholarship and two — Aravind Ganesh and Yan Yu — were among the 83 students selected from around the world to receive the award which covers up to three years of study at the University of Oxford.

Physicists earn university’s first NSERC John C. Polanyi Award for breakthrough work on antimatter

Two physicists from the University of Calgary were part of a nationwide contingent that received the Natural Sciences and Engineering Research Council of Canada (NSERC) John C. Polanyi Award. Adjunct Associate Professor Makoto C. Fujiwara and Professor Robert Thompson from the Department of Physics and Astronomy accepted the award with their five research colleagues at a ceremony held in Ottawa and hosted by the Governor General of Canada. The team, which includes Mike Hayden (Simon Fraser University), Walter Hardy (University of British Columbia), Art Olin (TRIUMF/University of Victoria), David Gill (TRIUMF), and Scott Menary (York University), made significant scientific contributions to the international Antihydrogen Laser Physics Apparatus project, also known as ALPHA.

First chance at democracy

History professor Stephen Randall was the recipient of a lifetime public service achievement award from the Canadian Council for the Americas for his contributions to the establishment of democracy in Latin America. At a time when many countries were coming out of civil wars, he helped coordinate elections in countries such as Venezuela, El Salvador and Nicaragua.

Law prof embodies Calgary law spirit

Faculty of Law professor Jennifer Koshan, LLB’88, was the recipient of the 2013 Canadian Association of Law Teachers Prize for Academic Excellence. She strongly believes in social justice; researches human rights, constitutional law and violence against women; and is involved in law reform work both in Canada and internationally.

RATIO OF APPLICANTS TO STUDENT INTAKE

The ratio of applicants to student intake measure is calculated as the number of applicants we attract relative to the number of available student spaces. It is one indicator of program demand. As shown below, student demand has increased significantly over the past two years.

FIGURE 11 - Ratio of Applicants to Student Intake

<table>
<thead>
<tr>
<th>Year</th>
<th>Undergraduate</th>
<th>Graduate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-09</td>
<td>2.15 : 1</td>
<td>2.95 : 1</td>
</tr>
<tr>
<td>2009-10</td>
<td>2.10 : 1</td>
<td>2.97 : 1</td>
</tr>
<tr>
<td>2010-11</td>
<td>2.07 : 1</td>
<td>3.04 : 1</td>
</tr>
<tr>
<td>2011-12</td>
<td>2.19 : 1</td>
<td>3.18 : 1</td>
</tr>
<tr>
<td>2012-13</td>
<td>2.58 : 1</td>
<td>3.52 : 1</td>
</tr>
<tr>
<td>Alberta Peer</td>
<td>2.13 : 1</td>
<td>3.80 : 1</td>
</tr>
<tr>
<td>2015-16 Target</td>
<td>2.13 : 1</td>
<td>3.80 : 1</td>
</tr>
</tbody>
</table>

Source: AET Application Submission Initiative (ASI)
Note: The number of graduate applicants is understated by ASI. Only U of A data available for peer comparison.
We monitor the graduate proportion of our total student population to ensure that we grow to the level of leading research universities. The proportion of graduate students at leading international research universities is approximately 25 per cent, and our intent is to move towards that target by 2015-16. The University of Calgary is currently within the range of top 5 Canadian institutions.

**AVERAGE ENTERING GRADE FROM HIGH SCHOOL**

We promote high levels of student achievement by emphasizing the importance of academic admission standards. The average entering grade is one of a number of leading indicators of graduation rates. Average entering grade increased by 1.4 percentage points in the last year. This is a significant increase that puts the University of Calgary in line with the top 5 institutions in Canada.

**FIGURE 12 - Average Entering Grade from High School**

<table>
<thead>
<tr>
<th>Year</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-09</td>
<td>82.8%</td>
</tr>
<tr>
<td>2009-10</td>
<td>82.0%</td>
</tr>
<tr>
<td>2010-11</td>
<td>82.3%</td>
</tr>
<tr>
<td>2011-12</td>
<td>82.7%</td>
</tr>
<tr>
<td>2012-13</td>
<td>84.1%</td>
</tr>
</tbody>
</table>

Top 5 (min) | 84.0%
Top 5 (avg.) | 86.9%
2015-16 Target | 85.0%

Source: University of Calgary admissions data; Peer data from Maclean’s publication

**STUDENT MIX (GRADUATE PROPORTION OF TOTAL ENROLMENT)**

We monitor the graduate proportion of our total student population to ensure that we grow to the level of leading research universities. The proportion of graduate students at leading international research universities is approximately 25 per cent, and our intent is to move towards that target by 2015-16. The University of Calgary is currently within the range of top 5 Canadian institutions.

**FIGURE 13 - Student Mix (Graduate Proportion of Total Enrolment)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Grad. Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-09</td>
<td>19.3%</td>
</tr>
<tr>
<td>2009-10</td>
<td>19.7%</td>
</tr>
<tr>
<td>2010-11</td>
<td>19.3%</td>
</tr>
<tr>
<td>2011-12</td>
<td>19.3%</td>
</tr>
<tr>
<td>2012-13</td>
<td>18.9%</td>
</tr>
</tbody>
</table>

Top 5 (min) | 18.9%
Top 5 (avg.) | 21.7%
2015-16 Target | 25.0%

Source: University of Calgary Fact Book (Headcount)

---

**THANKYOU**
STUDENT MIX (INTERNATIONAL ENROLMENT)

We monitor the number of international students that we attract to ensure that we grow to the level of top 5 universities. The proportion of international students at leading Canadian research universities is close to 10 per cent at the undergraduate level and 25 per cent at the graduate level. The proportion of international undergraduate students has increased by almost a percentage point in one year. This is a significant step towards the goal of 10 per cent.

FIGURE 14 - Student Mix (International Enrolment)

<table>
<thead>
<tr>
<th>Year</th>
<th>Undergraduate</th>
<th>Graduate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-09</td>
<td>5.7%</td>
<td>21.3%</td>
</tr>
<tr>
<td>2009-10</td>
<td>5.4%</td>
<td>24.0%</td>
</tr>
<tr>
<td>2010-11</td>
<td>5.2%</td>
<td>24.9%</td>
</tr>
<tr>
<td>2011-12</td>
<td>5.4%</td>
<td>25.0%</td>
</tr>
<tr>
<td>2012-13</td>
<td>6.3%</td>
<td>24.6%</td>
</tr>
<tr>
<td>Top 5 (min)</td>
<td>7.8%</td>
<td>18.9%</td>
</tr>
<tr>
<td>Top 5 (avg.)</td>
<td>10.6%</td>
<td>22.0%</td>
</tr>
<tr>
<td>2015-16 Target</td>
<td>10.0%</td>
<td>25.0%</td>
</tr>
</tbody>
</table>

Source: University of Calgary Fact Book (Proportion of Total Fulltime)

STUDENT TO FACULTY RATIO (TOTAL)

Our student to faculty ratio is an indicator of the level of academic staff that we have available to educate students. It is calculated as the total number of students divided by the total number of academic staff. This particular metric will be heavily affected by the budget and is likely to be affected by new teaching technology.

FIGURE 15 - Student to Faculty Ratio (Total)

<table>
<thead>
<tr>
<th>Year</th>
<th>Undergraduate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-09</td>
<td>18.7:1</td>
</tr>
<tr>
<td>2009-10</td>
<td>20.0:1</td>
</tr>
<tr>
<td>2010-11</td>
<td>21.4:1</td>
</tr>
<tr>
<td>2011-12</td>
<td>23.1:1</td>
</tr>
<tr>
<td>2012-13</td>
<td>23.3:1</td>
</tr>
<tr>
<td>Top 5 (min)</td>
<td>33.7:1</td>
</tr>
<tr>
<td>Top 5 (avg.)</td>
<td>23.6:1</td>
</tr>
<tr>
<td>2015-16 Target</td>
<td>20.0:1</td>
</tr>
</tbody>
</table>

Source: Fall counts of Full-time Equivalent (FTE) Students and full-time tenure & tenure-track academic staff; peer data from 2010-11 Presidents’ fact book

Our performance measures must balance measurement along quantitative and qualitative dimensions and reflect different facets of our organization.
STUDENT TO FACULTY RATIO (GRADUATE)

Our graduate student to faculty ratio is an indicator of the vibrancy of our graduate programs. It is calculated as the total number of graduate students divided by the total number of academic staff.

POSTDOCTORAL SCHOLARS

Our Postdoctoral Scholars measure monitors the number of scholars that we attract. Postdoctoral scholars contribute to our overall research quality and productivity. Although the number of post-doctoral scholars declined, this metric will improve over the next year as the Eyes High post-doctoral program is implemented.

**FIGURE 16 - Student to Faculty Ratio (Graduate)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-09</td>
<td>3.4:1</td>
</tr>
<tr>
<td>2009-10</td>
<td>3.8:1</td>
</tr>
<tr>
<td>2010-11</td>
<td>4.0:1</td>
</tr>
<tr>
<td>2011-12</td>
<td>4.3:1</td>
</tr>
<tr>
<td>2012-13</td>
<td>4.4:1</td>
</tr>
</tbody>
</table>

**FIGURE 17 - Postdoctoral Scholars**

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-09</td>
<td>315</td>
</tr>
<tr>
<td>2009-10</td>
<td>340</td>
</tr>
<tr>
<td>2010-11</td>
<td>385</td>
</tr>
<tr>
<td>2011-12</td>
<td>390</td>
</tr>
<tr>
<td>2012-13</td>
<td>365</td>
</tr>
</tbody>
</table>

Top 5 (min) 6.8:1
Top 5 (avg.) 5.2:1
2015-16 Target 5.0:1

Top 5 (min) 506
Top 5 (avg.) 1005
2015-16 Target 1100

Source: Full-time Equivalent (FTE) Graduate Students and full-time tenure & tenure-track academic staff. Peer data from Presidents’ fact book.

Source: University of Calgary Post Doctoral Fellows Data
**POSTDOCTORAL SCHOLARS (PER TENURE & TENURE-TRACK FACULTY MEMBER)**

Postdoctoral Scholars per tenure and tenure-track faculty member is another indicator of research quality and productivity. It accounts for size differences among top five institutions by dividing the total number of postdoctoral scholars by the total number of tenure and tenure-track faculty members. Postdoctoral scholars contribute to our overall research quality and productivity. Although the number of postdoctoral scholars declined on an absolute basis, this metric will improve over the next year as the *Eyes High* post-doctoral program is implemented.

**FIGURE 18 - Postdoctoral Fellows (Per Tenure & Tenure-Track Faculty Member)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-09</td>
<td>0.23:1</td>
</tr>
<tr>
<td>2009-10</td>
<td>0.25:1</td>
</tr>
<tr>
<td>2010-11</td>
<td>0.29:1</td>
</tr>
<tr>
<td>2011-12</td>
<td>0.30:1</td>
</tr>
<tr>
<td>2012-13</td>
<td>0.29:1</td>
</tr>
<tr>
<td>Top 5 (min)</td>
<td>0.29:1</td>
</tr>
<tr>
<td>Top 5 (avg.):</td>
<td>0.52:1</td>
</tr>
<tr>
<td>2015-16 Target</td>
<td>0.44:1</td>
</tr>
</tbody>
</table>

Source: University of Calgary Post Doctoral Fellows Data

**PERFORMANCE MEASURES: RESEARCH**

**New interdisciplinary research group explores clean and efficient energy**

Venkataraman Thangadurai and Viola Birss from the Faculty of Science and Kunal Karan of the Schulich School of Engineering created a new interdisciplinary research group exploring the generation, conversion and storage of clean and efficient energy.

**Banning body-checking**

Hockey Alberta and Hockey Canada banned body-checking from peewee ice hockey in the wake of landmark studies by Carolyn Emery, co-chair of the Sport Injury Prevention Research Centre in the Faculty of Kinesiology. Emery and colleagues predict hundreds fewer injuries and concussions after body-checking is eliminated at that level of play.

**More roads not solution to congestion**

At the Alberta Motor Association Active Traffic and Demand Management Laboratory in the Schulich School of Engineering, the lab’s director, Lina Kattan, Urban Alliance Professor in Transportation Systems Optimization, and her team explored how to optimize our existing network of roads, reduce congestion and accidents while improving safety, the economy and the environment.
SPONSORED RESEARCH REVENUE (TOTAL)

Our sponsored research income measure is one indicator of our research quality and productivity. It includes revenue from federal, provincial and foreign governments, corporations, foundations and non-profit organizations, and donations and investment income. As we have hired 50 new stimulus hires, but lost close to 50 academics through retirement, we are predicting a relatively stable academy, but one which has been renewed. We anticipate our scores will improve in the coming years. The top 5 institutions are all larger than the University of Calgary, and so, in absolute numbers, would be expected to produce more.

FIGURE 19 - Sponsored Research Revenue (Total)

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue (in $M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-09</td>
<td>$244.9</td>
</tr>
<tr>
<td>2009-10</td>
<td>$271.9</td>
</tr>
<tr>
<td>2010-11</td>
<td>$281.0</td>
</tr>
<tr>
<td>2011-12</td>
<td>$273.5</td>
</tr>
<tr>
<td>2012-13</td>
<td>$328.7</td>
</tr>
</tbody>
</table>

Top 5 (min) = $452.4
Top 5 (avg.) = $617.1
2015-16 Target = $400.0

Source: Canadian Association of University Business Officials (CAUBO) ($M)

SPONSORED RESEARCH REVENUE (PER TENURE & TENURE-TRACK FACULTY MEMBER)

Sponsored research revenue per tenure and tenure-track faculty member is another indicator of research quality and productivity. It includes research revenue from federal, provincial and foreign governments, corporations, foundations and non-profit organizations, and donations and investment income. We anticipate this number will increase as a result of the strategies that have been put in place.

FIGURE 20 - Sponsored Research Revenue (Per Tenure & Tenure-Track Faculty Member)

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue (in $ thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-09</td>
<td>$180</td>
</tr>
<tr>
<td>2009-10</td>
<td>$199</td>
</tr>
<tr>
<td>2010-11</td>
<td>$214</td>
</tr>
<tr>
<td>2011-12</td>
<td>$216</td>
</tr>
<tr>
<td>2012-13</td>
<td>$260</td>
</tr>
</tbody>
</table>

Top 5 (min) = $230
Top 5 (avg.) = $303
2015-16 Target = $311

Source: Canadian Association of University Business Officials (CAUBO) ($ thousands); faculty counts from HR
TRI-COUNCIL REVENUE (TOTAL)

Our Tri-Council research income measure is an indicator of our research income, intensity, and quality. It includes grant revenue from the Canadian Institutes of Health Research (CIHR), Natural Sciences and Engineering Research Council (NSERC) and the Social Sciences and Humanities Research Council (SSHRC). We anticipate this number will increase as a result of the strategies that have been put in place. The top 5 institutions are all larger than the University of Calgary, and so, in absolute numbers, would be expected to produce more.

TRI-COUNCIL REVENUE (PER TENURE AND TENURE-TRACK FACULTY MEMBER)

Tri-Council research income per tenure and tenure-track faculty member is an indicator of research income, intensity, and quality. It includes research grant revenue from the Canadian Institutes of Health Research (CIHR), Natural Sciences and Engineering Research Council (NSERC) and the Social Sciences and Humanities Research Council (SSHRC). Unaudited financial statement data may differ from “awards” reported by the Tri-Council. We anticipate this number will increase as a result of the strategies that have been put in place.

**FIGURE 21 - Tri-Council Revenue (Total)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-09</td>
<td>$77</td>
</tr>
<tr>
<td>2009-10</td>
<td>$81</td>
</tr>
<tr>
<td>2010-11</td>
<td>$81</td>
</tr>
<tr>
<td>2011-12</td>
<td>$77</td>
</tr>
<tr>
<td>2012-13</td>
<td>$67</td>
</tr>
</tbody>
</table>

Top 5 (min) $123
Top 5 (avg.) $211
2015-16 Target $135

**FIGURE 22 - Tri-Council Revenue (Per Tenure and Tenure-Track Faculty Member)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-09</td>
<td>$56</td>
</tr>
<tr>
<td>2009-10</td>
<td>$60</td>
</tr>
<tr>
<td>2010-11</td>
<td>$61</td>
</tr>
<tr>
<td>2011-12</td>
<td>$61</td>
</tr>
<tr>
<td>2012-13</td>
<td>$53</td>
</tr>
</tbody>
</table>

Top 5 (min) $85
Top 5 (avg.) $109
2015-16 Target $105

Source: Canadian Association of University Business Officials (CAUBO) ($ millions)
PUBLICATIONS (TOTAL)

One measure of a university’s scholarly output is the number of publications that it produces each year. This measure monitors the number of publications produced by the University of Calgary in all subject areas compared to peer institutions. The university continues to improve in publication quantity, with an increase in over 500 publications per year since 2007-08. The top 5 institutions are all larger than the University of Calgary, and so, in absolute numbers, would be expected to produce more.

PUBLICATIONS (PER TENURE AND TENURE-TRACK FACULTY MEMBER)

One measure of a university’s research productivity is the number of papers produced on average by each faculty member. This measure monitors the number of publications produced by the University of Calgary by tenure and tenure-track faculty member in all subject areas compared to peer institutions. Productivity, as measured by publication, has risen significantly since 2008-09 and is within range of the top 5 benchmark.

FIGURE 23 - Publications (Total)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Publications</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-09</td>
<td>2,605</td>
</tr>
<tr>
<td>2009-10</td>
<td>2,680</td>
</tr>
<tr>
<td>2010-11</td>
<td>2,721</td>
</tr>
<tr>
<td>2011-12</td>
<td>2,727</td>
</tr>
<tr>
<td>2012-13</td>
<td>2,987</td>
</tr>
</tbody>
</table>

Top 5 (min) 3,939
Top 5 (avg.) 6,036
2015-16 Target 5,451

Source: Thompson Reuters — individual year total

FIGURE 24 - Publications (Per Tenure and Tenure-Track Faculty Member)

<table>
<thead>
<tr>
<th>Year</th>
<th>Per Faculty Publication</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-09</td>
<td>1.92</td>
</tr>
<tr>
<td>2009-10</td>
<td>1.96</td>
</tr>
<tr>
<td>2010-11</td>
<td>2.06</td>
</tr>
<tr>
<td>2011-12</td>
<td>2.15</td>
</tr>
<tr>
<td>2012-13</td>
<td>2.36</td>
</tr>
</tbody>
</table>

Top 5 (min) 1.66
Top 5 (avg.) 2.15
2015-16 Target 2.80

Source: Thompson Reuters — individual year totals; faculty counts from UofC HR
Citations (Total)

One measure of the impact of the research that is performed is the number of times its publications are cited. Frequently cited publications are viewed as having more relevance or impact. This citation measure monitors the number of citations produced by the University of Calgary in all subject areas compared to peer institutions. Our history over the past five years shows a clear pattern of year-over-year increase in overall citations rates and thus, in overall research impact. The top 5 institutions are all larger than the University of Calgary, and so, in absolute numbers, would be expected to produce more.

Citations (Per Tenure and Tenure-Track Faculty Member)

One measure of the impact of the research that is performed in the university is the number of times its publications are cited. Frequently cited publications are viewed as having more relevance or impact and frequently cited investigators tend to be those who have more prominence in their fields. This citation measure monitors the number of citations per faculty member produced by the University of Calgary in all subject areas compared to peer institutions. The number of citations per faculty member has risen significantly in the past four years, reflecting an increase in the relevance and impact of the research conducted at the University of Calgary. We are within range of the top 5 U15 institutions in this measure.

Figure 25 - Citations (Total)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Citations</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-09</td>
<td>64,444</td>
</tr>
<tr>
<td>2009-10</td>
<td>74,184</td>
</tr>
<tr>
<td>2010-11</td>
<td>77,734</td>
</tr>
<tr>
<td>2011-12</td>
<td>94,153</td>
</tr>
<tr>
<td>2012-13</td>
<td>101,578</td>
</tr>
<tr>
<td>Top 5 (min)</td>
<td>144,903</td>
</tr>
<tr>
<td>Top 5 (avg.)</td>
<td>240,562</td>
</tr>
<tr>
<td>2015-16 Target</td>
<td>150,000</td>
</tr>
</tbody>
</table>

Figure 26 - Citations (Per Tenure and Tenure-Track Faculty Member)

<table>
<thead>
<tr>
<th>Year</th>
<th>Citations per Faculty Member</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-09</td>
<td>47.3</td>
</tr>
<tr>
<td>2009-10</td>
<td>54.4</td>
</tr>
<tr>
<td>2010-11</td>
<td>59.0</td>
</tr>
<tr>
<td>2011-12</td>
<td>67.4</td>
</tr>
<tr>
<td>2012-13</td>
<td>80.2</td>
</tr>
<tr>
<td>Top 5 (min)</td>
<td>63.6</td>
</tr>
<tr>
<td>Top 5 (avg.)</td>
<td>104.1</td>
</tr>
<tr>
<td>2015-16 Target</td>
<td>77.0</td>
</tr>
</tbody>
</table>

Source: Thompson Reuters — 5-year totals
Source: Thompson Reuters — 5-year totals; faculty counts from UofC HR
NEW INVENTION DISCLOSURES

This measure monitors the number of new or novel inventions that our researchers disclose each year while patent protection is being obtained. New invention disclosures are granted for ideas that produce products, processes, machines, or compositions of matter, or any new and useful improvements of these. We anticipate these numbers will increase as we develop our strategy with Innovate Calgary.

NEW LICENSES

New licenses provide one measure of a university’s scholarly output that will be translated into useful products that help to shape society. It refers to the number of new discoveries licensed each year. We have determined that we are not accurately capturing discoveries made on our campus, and will aim to improve reporting over the next year. We anticipate these numbers will increase as we develop our strategy with Innovate Calgary.

FIGURE 27 - New Invention Disclosures

<table>
<thead>
<tr>
<th>Year</th>
<th>Disclosures</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-09</td>
<td>217</td>
</tr>
<tr>
<td>2009-10</td>
<td>210</td>
</tr>
<tr>
<td>2010-11</td>
<td>172</td>
</tr>
<tr>
<td>2011-12</td>
<td>143</td>
</tr>
<tr>
<td>2012-13</td>
<td>173</td>
</tr>
<tr>
<td>Top 5 (min)</td>
<td>278</td>
</tr>
<tr>
<td>Top 5 (avg.)</td>
<td>364</td>
</tr>
<tr>
<td>2015-16 Target</td>
<td>300</td>
</tr>
</tbody>
</table>

FIGURE 28 - New Licenses

<table>
<thead>
<tr>
<th>Year</th>
<th>Licenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-09</td>
<td>72</td>
</tr>
<tr>
<td>2009-10</td>
<td>73</td>
</tr>
<tr>
<td>2010-11</td>
<td>44</td>
</tr>
<tr>
<td>2011-12</td>
<td>42</td>
</tr>
<tr>
<td>2012-13</td>
<td>31</td>
</tr>
<tr>
<td>Peer Top 5</td>
<td>85</td>
</tr>
<tr>
<td>2015-16 Target</td>
<td>85</td>
</tr>
</tbody>
</table>

Source: Innovate Calgary, AUTM Survey (Three-year running total)
PERFORMANCE MEASURES: ENGAGEMENT

Flood inspired acts of service

Inspiring acts of service emerged as individuals and groups from the university reached out to provide much-needed relief to those affected by flooding in southern Alberta:

- Haskayne faculty and alumni launched Flood Insurance 101 to offer free information on insurance questions;
- Nursing and medicine volunteers provided comfort to southern Albertans who stood in long lineups to receive aid, and who lived temporarily at campus evacuation centres;
- Law students partnered with legal organizations to provide free legal advice to flood victims;
- Volunteers organized summer camps for displaced children;
- The university shared space with other universities and the City of Calgary;
- Medical students created an email list to help organize and mobilize volunteers;
- AUPE Local 52 donated more than $20,000 for flood relief;
- Participants at the Stampede barbecue donated more than $2,500 to the Canadian Red Cross Alberta Floods Fund;
- Library and technology staff collaborated to provide library services for an influx of hundreds of customers whose regular facilities were knocked out.
- Outdoor Centre staff joined the effort to begin rebuilding washed-out recreation areas of K-Country.

Helping African women and children refugees

Master of Social Work student Joanna Kinya Mugambi is one of the recipients of the Margaret McNamara Memorial Fund grant of $12,000. The recipient is expected to return to their country of origin or another developing country and apply their knowledge and skills to improve the lives of women and children there. Joanna plans to work with women and children in African refugee camps.

Greatest show above Earth

Canadian astronaut, Col. (Ret.) Chris Hadfield, earned a heartfelt standing ovation from an audience of about 650 after he gave his first public presentation on our campus since leaving the International Space Station. One prominent member of the university’s space research community, alumna Natalie Panek, said, “It is adventurers like Commander Hadfield who have instilled the drive and enthusiasm in Canadian youth to explore and push boundaries.”

Oval sends 17 long-track speed skaters to Sochi to represent Canada at 2014 Olympic Winter Games

While the skaters — the nine women and eight men — came from across Canada, most consider the Olympic Oval their home, having come here for the coaching, athlete support services, expertise, and the world’s fastest ice. Taking other sports into account as well, a total of about 25 athletes from the University of Calgary, including current students and recent grads, competed in Sochi.
UNDERGRADUATE STUDENT ENGAGEMENT

We monitor the quality of our learning environment, and the overall level of satisfaction reported by senior level undergraduate students, through their responses to the National Survey of Student Engagement (NSSE) question, ‘How would you evaluate your entire educational experience at this institution?’ Percentages shown are ratings of ‘good’ to ‘excellent’. The NSSE survey will be conducted on our campus again this year (2014). We are within the top 5 with regards to the first year experience, and have been focusing on the fourth year.

GRADUATE STUDENT ENGAGEMENT

We monitor the quality of the learning environment and the overall level of satisfaction reported by our graduate students in regular programs through their responses to a Canadian Graduate and Professional Student Survey (GPSS) question that assesses the percentage of students (master’s and PhD) rating the quality of their graduate program as ‘very good’ or ‘excellent’. This had been a focus of concentration in the past year and we anticipate increased scores on the next survey.

FIGURE 29 - Undergraduate Student Engagement

FIGURE 30 - Graduate Student Engagement
**GRADUATE SATISFACTION**

We monitor the quality of our learning environment through student responses to the question, ‘rate the quality of your education experience’ on a Government of Alberta survey completed two years after graduation. Percentages shown are ratings of ‘satisfied’ to ‘very satisfied’. This survey will be conducted again in the upcoming year. This had been a focus of concentration in the past year and we anticipate increased scores on the next survey.

**DEGREES AWARDED**

This measure provides an indication of how many students graduate each year who go on to be thoughtful, communicative citizens and leaders of their respective communities with abilities to think critically and creatively to solve issues of the day. We have determined that we will be using a sustainable growth model to determine overall enrolment, and thus it is likely that our graduate numbers will be relatively stable unless further funding is provided to increase enrolment.

---

**FIGURE 31 - Graduate Satisfaction**

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-09</td>
<td>86.2%</td>
</tr>
<tr>
<td>2009-10</td>
<td>85.0%</td>
</tr>
<tr>
<td>2010-11</td>
<td></td>
</tr>
<tr>
<td>2011-12</td>
<td>90%</td>
</tr>
<tr>
<td>2012-13</td>
<td></td>
</tr>
<tr>
<td>Alberta Peer</td>
<td>90%</td>
</tr>
<tr>
<td>2015-16 Target</td>
<td>85.0%</td>
</tr>
</tbody>
</table>

*The Graduate Outcomes Survey is administered every two years*

**FIGURE 32 - Degrees Awarded**

<table>
<thead>
<tr>
<th>Year</th>
<th>Undergraduate</th>
<th>Graduate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-09</td>
<td>4,622</td>
<td>1,358</td>
</tr>
<tr>
<td>2009-10</td>
<td>4,588</td>
<td>1,285</td>
</tr>
<tr>
<td>2010-11</td>
<td>4,719</td>
<td>1,409</td>
</tr>
<tr>
<td>2011-12</td>
<td>4,857</td>
<td>1,534</td>
</tr>
<tr>
<td>2012-13</td>
<td>4,755</td>
<td>1,634</td>
</tr>
<tr>
<td>2015-16 Target</td>
<td>4,800</td>
<td>1,800</td>
</tr>
</tbody>
</table>

*Source: University of Calgary Graduate Outcomes data (EAE Survey)*

Note: Only U of A data available for peer comparison

*Source: Graduate degrees awarded database (includes certificate and diploma)*
Employment Rate (Government of Alberta Graduate Outcomes Survey)

We monitor how well we respond to the needs of individual learners and to the social, economic and cultural needs of the province through the percentage of graduate survey respondents who are employed, and employed in a related field, within a specified period following graduation.

**Figure 33 - Employment Rate (Government of Alberta Graduate Outcomes Survey)**

2008-09: 79.5% employment, 95.0% employed in related jobs
2009-10: 79.5% employment, 96.1% employed in related jobs
2010-11: 79.5% employment, 96.1% employed in related jobs
2011-12: 85.0% employment, 95.0% employed in related jobs
2012-13: 81.3% employment, 95.6% employed in related jobs
2015-16 Target: 85.0% employment, 95.0% employed in related jobs

Source: University of Calgary Graduate Outcomes data (from EAE Survey)
Peer based on Alberta data
EMPLOYEE ENGAGEMENT

Our employee engagement survey provides an important measure of how well we work together to build commitment and trust in leadership, ensure a culture of respect and recognition, and create a ‘one university family’ environment for our employees. Results from the 2011 survey provide an important baseline from which to measure progress. Recent results from 2013 demonstrate that while we have made significant improvements, there is still work to be done, and we have plans in place for key indicators.

FIGURE 34 - Employee Engagement

<table>
<thead>
<tr>
<th>Category</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning and Research Focus</td>
<td>78%</td>
<td>85%</td>
</tr>
<tr>
<td>Clear and Promising Direction</td>
<td>78%</td>
<td>82%</td>
</tr>
<tr>
<td>Authority and Empowerment</td>
<td>77%</td>
<td>83%</td>
</tr>
<tr>
<td>Engagement</td>
<td>79%</td>
<td>83%</td>
</tr>
<tr>
<td>Image and Reputation</td>
<td>78%</td>
<td>83%</td>
</tr>
<tr>
<td>Development Opportunities</td>
<td>78%</td>
<td>83%</td>
</tr>
<tr>
<td>Resources</td>
<td>77%</td>
<td>82%</td>
</tr>
<tr>
<td>Supervision</td>
<td>78%</td>
<td>81%</td>
</tr>
<tr>
<td>Faculty/Institute/Admin Unit</td>
<td>75%</td>
<td>81%</td>
</tr>
<tr>
<td>Pay and Benefits</td>
<td>78%</td>
<td>80%</td>
</tr>
<tr>
<td>Enablement</td>
<td>75%</td>
<td>78%</td>
</tr>
<tr>
<td>Performance/Work Demands</td>
<td>75%</td>
<td>78%</td>
</tr>
<tr>
<td>Collaboration</td>
<td>70%</td>
<td>77%</td>
</tr>
<tr>
<td>Respect and Recognition</td>
<td>68%</td>
<td>75%</td>
</tr>
<tr>
<td>Confidence in Leadership</td>
<td>62%</td>
<td>74%</td>
</tr>
<tr>
<td>University Issues</td>
<td>62%</td>
<td>67%</td>
</tr>
</tbody>
</table>
PERFORMANCE MEASURES: ENVIRONMENT

EEEL goes platinum

The Energy Environment Experiential Learning building received Leadership in Energy and Environmental Design Platinum certification, confirming that it is one of the most energy-efficient laboratory buildings in North America.

Solar House takes up residence on campus

Student-built solar house becomes a permanent research facility at the university. The Cenovus Spo’pi Solar House is a dome-shaped, 93-square-metre structure featuring the latest in solar power technology and provides another means for students to contribute to and work with the community through research, teaching and service.

University solar teams on the world stage

The University of Calgary was represented at two high-profile international student competitions: the Solar Decathlon competition in Irvine, Calif., and the World Solar Challenge in Australia. Both teams were composed of students from multiple faculties who have worked on projects that demonstrate the practicality of using renewable energy. The University of Calgary is a world leader in sustainability research and education and these students put what they learned into practice.

FUNDRAISING

We monitor the extent to which we engage the community in our educational programs and our research, scholarship and creative activity through a measure that tracks the level of funds we raise within the community to support these activities. The University of Calgary is currently within the range of top 5 Canadian institutions.

FIGURE 35 - Fundraising

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-09</td>
<td>103.6</td>
</tr>
<tr>
<td>2009-10</td>
<td>83.7</td>
</tr>
<tr>
<td>2010-11</td>
<td>76.5</td>
</tr>
<tr>
<td>2011-12</td>
<td>88.6</td>
</tr>
<tr>
<td>2012-13</td>
<td>123.7</td>
</tr>
</tbody>
</table>

Peer* 99.9
Peer avg* 132.7
2015-16 Target 120.0

Source: University of Calgary Development Office (SM)
* Peer based on Toronto, UBC, Alberta only (2010-11)
FINANCIAL HEALTH (ENDOWMENT BALANCE)

Growth in our endowment balance is an important indicator of the cumulative support we have received from our community. It is an indication of our capacity to support our academic priorities in future years. While we are in the range of the top 5 U15 universities, this will be an area of focus in the coming years.

FINANCIAL SUSTAINABILITY (UNRESTRICTED NET ASSETS)

One index of our leadership in the area of economic sustainability is the level of our Unrestricted Net Assets (UNA). As a general guideline, leading universities establish positive UNA balances of five per cent of their budgets to ensure that they have the resources needed to address challenges and leverage opportunities. We are currently slightly over the five per cent target of overall budget. With the change in budget announced in March 2013 we have decreased our UNA pool, but we remain financially healthy.
FINANCIAL SUSTAINABILITY (FACILITIES CONDITION INDEX — (FCI))

FCI provides one measure of the quality of our learning environment. It is calculated as a percentage of the total value of our supported asset pool requiring upgrades to various base building elements. Improvements in our FCI can result from investments in maintenance, changes in the replacement value of campus facilities, and the addition of new facilities. This is a measure we anticipate will be negatively impacted by the budget, particularly that related to the loss of Infrastructure Maintenance Program (IMP) funding.

SUSTAINABILITY

Our performance is aligned with the Sustainability Tracking, Assessment and Rating System (STARS) developed by the Association for the Advancement of Sustainability in Higher Education (AASHE). This measure monitors our performance in the areas of environmental sustainability in education and research, operations, planning, administration and engagement. We have made significant progress and are now number 2 in the country on STARS.

![Figure 38 - Financial Sustainability (Facilities Condition Index - (FCI))](image)

![Figure 39 - Sustainability](image)

Source: University of Calgary Facilities Management; Peer data from Canadian FCI Survey

Source: Association for the Advancement of Sustainability in Higher Education (AASHE) (Canadian Institution Total Scores 2011)
PERFORMANCE MEASURES: TEACHING

Lecture of a lifetime

Department of Music professor Allan Bell captivated a crowd with his words and music at the 2013 Lecture of a Lifetime, hosted through the Senate. Allan helped create the doctoral program in music and has won numerous scholarly honours throughout his career.

FREDsense wins first-place

Recognition keeps rolling in for FREDsense, the interdisciplinary team of students that developed a tailings pond biosensor. Already a success at the International Genetically Engineered Machine competitions in 2012 and 2013, FREDsense won first-place and the sustainability award at the Queen’s Entrepreneurs Competition, and first-place in the Energy New Venture Competition hosted by the Haskayne School of Business.

Vet Med receives accreditation

The American Veterinary Medical Association (AVMA) and the Canadian Veterinary Medical Association (CVMA) awarded the Faculty of Veterinary Medicine full accreditation for the next seven years — the highest level of approval possible during a school’s first opportunity to apply for full accreditation. The AVMA/CVMA accreditation — a joint process that allows graduates of approved facilities to be able to apply for a license to practice in all Canadian and American jurisdictions — is just one of many industry standards in which veterinary medicine students are already excelling. This spring, the university’s first veterinary medicine graduates received a 100 per cent pass rate on their North American Licensing Examinations.

TEACHING

We are developing measures to promote the professional development of professors, instructors, graduate students, and teaching assistants to create a culture of expert instruction. These measures will ensure that our students will benefit from the support, education, mentoring, and continuous improvement that we provide inside and outside the classroom.

FIGURE 40 - Teaching

2008-09
2009-10
2010-11
2011-12
2012-13
2015-16 Target

Under Construction
UNDERGRADUATE RETENTION RATE

Our undergraduate first-to-second year retention rate is an indicator of our performance that provides a basis for understanding at what stages in degree programs our students leave. This knowledge is useful in formulating and assessing interventions to minimize student withdrawal. Retention rate from year 1 to year 2 has improved significantly since 2007-2008 due in large part to initiatives undertaken during this period. We currently have a retention rate that is within the range of our top 5 U15 peers.

GRADUATION RATE

Our graduation rate measure is an indicator of university performance providing a basis for understanding the number of our students who ultimately graduate from a starting cohort. We are currently in the range of our top 5 peers.
TIME TO COMPLETION

Our time-to-degree measure shows the average number of years taken to complete a degree by students who started at the University of Calgary. This knowledge is useful in formulating and assessing interventions to improve student success. We do very well on this metric from an undergraduate and PhD degree perspective, but need to work on our master’s degree time to completion.

FIGURE 43 - Time to Completion

Source: University of Calgary Retention and time to completion reports (Years) (Tracking Period = Undergraduate 6-Year; Master’s 5-Year; PhD 9-Year)