



UNIVERSITY OF  
CALGARY

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UNIVERSITY OF CALGARY

# Annual Report

for the year ended March 31, 2022

*prepared for the Government of Alberta*

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# 1. Accountability Statement

September 17, 2022

The University of Calgary's Annual Report for the year ended March 31, 2022, was prepared under the Board's direction in accordance with the Fiscal Planning and Transparency Act and ministerial guidelines established pursuant to the Post-Secondary Learning Act. All material economic, environmental or fiscal implications of which we are aware have been considered in the preparation of this report.

[Original Signed by Mark Herman, Chair, Board of Governors]

## 2. Management's Responsibility for Reporting

The University of Calgary's management is responsible for the preparation, accuracy, objectivity and integrity of the information contained in the Annual Report including the financial statements, performance results and supporting management information. Systems of internal control are designed and maintained by management to produce reliable information to meet reporting requirements. The system is designed to provide management with reasonable assurance that transactions are properly authorized, are executed in accordance with all relevant legislation, regulations and policies, reliable financial records are maintained, and assets are properly accounted for and safeguarded.

The Annual Report has been developed under the oversight of the institution audit committee, as well as approved by the Board of Governors and is prepared in accordance with the Fiscal Planning and Transparency Act and the Post-Secondary Learning Act.

The Auditor General of Alberta, the institution's external auditor appointed under the Post-Secondary Learning Act, performs an annual independent audit of the consolidated financial statements which are prepared in accordance with Canadian public sector accounting standards.

[Original Signed by Ed McCauley, President and Vice-Chancellor]

[Original Signed by Ron Kim, Vice-President (Finance) and Chief Financial Officer]

### 3. Message from the Board Chair

I am pleased to present the University of Calgary's annual report to the Minister of Advanced Education for the year ended March 31, 2022. It highlights the achievements of over 35,000 students, creators, scholars and visionaries committed to teaching, learning and research in fulfillment of our mandate as approved by the Minister of Advanced Education.

Our success this year has been achieved against a backdrop of significant challenge. The COVID-19 pandemic and the economic recession continued to affect nearly every aspect of higher education in 2021-22. Despite significant trials, the University of Calgary continued to be a vital contributor to economic and social innovation in Alberta, a key contributor to the education and renewal of Alberta's workforce, and a valued contributor to the advancement of knowledge internationally.

Our community rallied around a plan for growth in 2021-22 that focused our collective attention on three "big ideas" (i.e., future-focused program delivery, deeper community partnerships, and transdisciplinary scholarship). These ideas are underpinned by a vibrant and inclusive campus community living its core values daily. These values come to life through our academic and research plans that guide and inform how we move forward as a learning environment. They are also reflected in our Indigenous Strategy, Campus Mental Health Strategy, Institutional Sustainability Strategy, and our commitment to Equity, Diversity and Inclusion, among other initiatives. Through these institutional plans and strategies, we foster a campus culture where students, faculty, staff, alumni and visitors feel welcome and energized.

Our commitment to these ideas allowed us to grow our resources, enhance our reputation, and improve our service to students and society such that we now find ourselves being recognized as one of Canada's top five research universities. As we work toward our goals – and the vision articulated in *Alberta 2030: Building Skills for Jobs* – we are setting our institution on the path for further growth.

[Original Signed by Mark Herman, Chair, Board of Governors]

## 4. Public Interest Disclosure Act

This section reports disclosures made pursuant to the Public Interest Disclosure (Whistleblower Protection) Act (i.e., the Act). The purposes of the Act are to facilitate the disclosure and investigation of significant and serious matters an employee believes may be unlawful, dangerous or injurious to the public interest; protect employees who make disclosures; manage, investigate and make recommendations respecting disclosures or wrongdoings and reprisals; and promote confidence in the administration of public entities.

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The University of Calgary (UCalgary) has a duty to ensure that information about the Act is widely communicated and that internal procedures are developed to receive and investigate disclosures of employee wrongdoing. Disclosures of wrongdoing are defined as a contravention of the Act or an act or omission that creates a substantial and specific danger to the life, health or safety of individuals (i.e., other than a danger that is inherent in the performance of the duties and functions of an employee), or a substantial and specific danger to the environment.

Wrongdoings are also defined as gross mismanagement of public funds or a public asset, and/or knowingly directing or counselling an individual to commit wrongdoings. Although many disclosures have merit, to be considered for investigation, the disclosure must comply with the definition of wrongdoing.

UCalgary is responsible for the preparation of this report detailing the number of disclosures received and investigated. The report includes the number of disclosures acted on and not acted on, the number of investigations commenced, a description of any wrongdoing found, and any recommendations made, or corrective measures taken regarding the wrongdoing or the reasons why no corrective measure was taken.

No disclosures that fall within the definition of wrongdoing as defined in the Act were reported during the reporting period (April 1, 2021, to March 31, 2022).

## 5. Operational Overview

Reported within this section are significant changes to the institutional environment from the projections made for 2021-22. Key drivers include important changes to political, economic, labour, adult learning and research environments. Also presented is a discussion of major changes to enrolment and programming because of changes from the assumptions made for 2021-22.

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### **POLITICAL ENVIRONMENT**

#### **COVID-19 pandemic**

The COVID-19 pandemic and the economic recession affected nearly every aspect of higher education in 2020.<sup>1</sup> The impact continued into 2021-22 forcing universities to reconsider their financial sustainability as well as reimagine how they recruit, admit, retain, and educate students. They also put pressure on government finances and forced a rapid push into remote program delivery. The major trends facing post-secondary institutions were the same ones identified as a concern prior to the pandemic (i.e., government funding, mental health, equity, diversity and inclusion, and affordability).<sup>2</sup>

#### **Blue Ribbon Panel on Alberta's Finances**

A report prepared by the Blue-Ribbon Panel on Alberta's Finances in 2019-20 continued to guide government decision-making in 2021-22. The Panel concluded that Alberta's spending per capita was the highest in Canada. The Panel determined that annual expenditures would be \$10.4 billion less if Alberta's per capita spending matched the average of Canada's three largest provinces. The report recommended that a strategy be established for the post-secondary system and spending be brought into line with peers.

#### **Post-Secondary System Review**

The post-secondary system review envisioned by the Blue-Ribbon Panel happened at a time of significant change for post-secondary institutions around the world. New knowledge industries were demanding a lifelong approach to learning. New technologies created digital citizens with very different expectations for platforms and customizability. Players that had not traditionally been in the education space began to offer programs and credentials to meet these needs. The provincial review culminated in [Alberta 2030: Building Skills for Jobs](#) released in April 2021. This 10-year strategy will transform the adult learning system by developing a highly skilled and competitive workforce, strengthening research innovation and commercialization, and forging stronger relationships between employers and post-secondary institutions.

### **ECONOMIC ENVIRONMENT**

#### **Provincial Budget 2021**

On February 25, 2021, the Government of Alberta delivered a budget to address the COVID-19 pandemic and respond to the collapse in energy prices. Revenue was projected to stabilize after falling for several years but forecast spending was expected to result in an \$18.2 billion deficit. This meant that a balanced

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<sup>1</sup> Hanover Research. (2021) [2021 Trends in Higher Education](#). Arlington, Virginia

<sup>2</sup> Association of Public and Land-grant Universities (APLU) in partnership with Blue Moon Consulting Group and SimpsonScarborough. (2020). [How Covid-19 changed everything and nothing at all](#). Washington, D.C.



budget would not occur until after the next election. The province planned to continue aligning spending with other provinces and significant budget cuts were planned for the post-secondary sector.

#### **Campus Alberta Grant**

The University of Calgary's provincial Campus Alberta grant was cut by 6.0 percent (\$25.0 million) in 2021-22. The cut resulted in a grant approximately the same size that it was over ten years earlier when UCalgary had 3,000 fewer students and 1,500 fewer faculty and staff. The cumulative reduction to UCalgary's grant since 2018-19 was 17.6%. Funding for the MacKimmie Complex remained unchanged at \$32.0 million, but capital maintenance and renewal funding increased from \$22.5 million in 2020-21 to \$31.1 million in 2021-22. Successive cuts to the provincial grant accelerated plans to modernize operations. Spending was prioritized and steps were taken to seek out new revenue streams.

#### **Performance-Based Funding**

The COVID-19 pandemic prompted government to push back the April 1, 2020 start date for a new Performance-Based Funding (PBF) model. The plan was to link 15 percent of provincial grants to institutional performance starting in 2021-22 and then gradually increase this amount to 40 percent. The model would be non-competitive, meaning that institutions would compete against themselves to improve their performance. Although measures were still being discussed at the time, the government selected 'work integrated learning' as the single measure for the PBF model in 2021-22.

### **LABOUR ENVIRONMENT**

#### **Employment**

Combined with a collapse in oil prices, the pandemic severely affected Alberta's labour market.<sup>3</sup> The employment decline was the largest annual contraction since 1976 when data started being collected. It was also the fifth consecutive year that Alberta's unemployment rate exceeded the national rate. By December 2021, Alberta's seasonally adjusted unemployment rate rebounded from above 10.0% to 7.3%.<sup>4</sup>

#### **Collective Bargaining**

Citing challenges brought about by the COVID-19 pandemic, the Government of Alberta extended the 2017 public sector wage freeze put in place for non-union public service employees through 2021-22. The province also asked the public service to take a pay cut. These moves were intended to align public sector compensation levels with those in other provinces. Compensation at Alberta's Post-Secondary Institutions was projected to decrease from \$3,585 million in 2019-20 to \$3,424 million in 2021-22. Salary settlements across Alberta's post-secondary institutions did not include any wage increases for 2021 or 2022.

#### **Working Conditions**

A study published in 2021 found that over half of employees were working from home by late 2020.<sup>5</sup> Safety concerns were cited as the main reason. Employers expected the number of alternative work arrangements to remain high through first quarter of 2021 and then decline gradually over the next three years.<sup>5</sup> In addition to safety concerns, promoting employee retention, maintaining or increasing employee engagement, and enhancing productivity were other drivers accelerating this trend.

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<sup>3</sup> Alberta Labour and Immigration, Government of Alberta. (2021). [Alberta's Labour Market Highlights 2020](#). Edmonton, Alberta.

<sup>4</sup> Alberta Labour and Immigration, Government of Alberta. (2021). [Labour Force Statistics December 2021](#) Alberta Highlights. Edmonton, Alberta.

<sup>5</sup> Willis Towers Watson. (2021). [Flexible Work and Rewards Survey: 2021 Design and Budget Priorities](#), Highlights of key findings, North America. London, United Kingdom. November 19, 2020.

## **LEARNING ENVIRONMENT**

### **COVIDsafe Campus**

On September 3, 2021, the Government of Alberta announced new measures to address the spread of Covid-19 that included financial incentives for getting vaccinated, masking requirements, and recommendations around social and workplace gatherings. More than one-third of the UCalgary campus community completed their COVIDsafe requirements at the start of the fall semester. Of those who enrolled, 91.4% were already fully vaccinated. By the end of the fall term, uncertainty surrounding the Omicron variant prompted UCalgary to move the remainder of in-person exams online. In addition, block week activities in early January 2022 were moved online and employees were encouraged to work remotely. In-person classes did not resume until February 28, 2022. The government's mandatory 'work from home' order remained in place until March 1, 2022.

### **Enrolment and Online Learning**

The pandemic had a major impact on post-secondary enrolments around the world. Close to half a million fewer students enrolled at schools in the United States than the previous year.<sup>5</sup> Much of the decrease was the result of international students staying home due to visa difficulties and fear of the virus. The transition to online learning during the pandemic resulted in exhausted faculty and frustrated students.<sup>6</sup> Institutions also found themselves having to address more cases of academic misconduct. In-person exams and monitoring software employed to limit academic misconduct raised concerns about accessibility, equality, racial profiling, and privacy. A range of resources were made available to help students transition at UCalgary (e.g., webinars and tutorials about online learning, and tips for staying motivated, taking notes, participating in online lectures, and completing assignments).

### **Microcredentials**

Individuals who lost jobs in the pandemic began looking for shorter-term programs to boost their resumes and get them back to work quickly.<sup>1</sup> They wanted flexible programs that would allow them to learn anywhere and any time. To meet these demands, institutions built their online capabilities while adding new non-degree programs, such as microcredentials or stackable credentials that could build to a bachelor's or master's degree over time. Aligned with Alberta's Recovery Plan, UCalgary launched several stackable graduate certificates, diplomas and professional degrees to help get people back to work as quickly as possible. Launch of the "MyCreds" program by the Association of Registrars of Universities and Colleges of Canada provided a nationally recognized way for students to collect and share these new credentials. UCalgary implemented the MyCreds digital wallet platform in 2021-22 as an optional service for students to allow them to view and share electronic versions of their official transcripts.

### **Mental Health**

While the last few years saw an increasing focus on campus mental health, the COVID-19 pandemic brought the wellbeing of faculty, staff, and leadership at postsecondary institutions into the mainstream conversation.<sup>1</sup> As a result of added stress, changing student needs, and new teaching demands, several authors wrote editorials about how to mitigate chronic stress during the pandemic. For its part, UCalgary provided additional supports to help staff and students cope with the emotional distress, depression, and anxiety they felt because of being isolated. Supports were also designed to improve connectivity, help students navigate online course delivery, and address challenges related to securing employment. In addition, UCalgary launched a survey to assess pandemic-related changes in the campus work and learning environments.

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<sup>6</sup> Academics Group. (2021) [2020 Canadian Higher Education Year in Review](#). London, Ontario. January 3, 2021

### **Anti-Black Racism**

Mobilization around anti-Black racism following the deaths of George Floyd in Minneapolis and Regis Korchinski-Paquet in Toronto highlighted the urgency of addressing systemic racism and racial violence. Along with many institutional anti-racism statements and teach-ins by scholars, these incidents revealed the extent to which racism is a “pandemic within the Covid-19 pandemic”. The UCalgary campus community took several actions to advance race equity. UCalgary publicly denounced anti-Black racism, anti-Indigenous racism, and racism in all forms. The leadership team also committed to embark on a journey of listening, learning, and compassion followed by a commitment to change.

### **International Students and Immigration**

The Government of Alberta launched a new *Blueprint for Jobs* program within the new Alberta Advantage Immigration Strategy to fast-track the processing of qualified graduates of top universities. This program provided a bridge to permanent residency through the Alberta *Immigrant Nominee Program*. Also launched was a *Foreign Graduate Entrepreneur Program* intended to fast-track immigration opportunities for foreign nationals who graduated from Alberta postsecondary institutions. For its part, UCalgary ramped up its effort to support international students with their study and work permits, as well as visa and other immigration questions during the COVID-19 pandemic.

## **INNOVATION ENVIRONMENT**

### **National Recognition**

UCalgary ranked fifth among Canada’s top research universities in ReSearch Infosource Inc.’s most recent Top 50 Research Universities list. UCalgary is the youngest university to have reached the top five. This recognition provides evidence that UCalgary research is highly relevant and pursuing bold new solutions to society’s challenges. Research funding also creates opportunities such as jobs and training, experiential learning, access to cutting-edge facilities, and an expanded innovation ecosystem.”

### **Provincial Investment**

The Government of Alberta announced that it would invest \$1 billion in Jobs, Economy and Innovation (JEI) as part of Budget 2021 – an increase of \$706 million from 2020-21. The investment funded new programs and initiatives (e.g., \$362 million over three years to support the recovery plan and \$500 million to set up a recovery contingency). The JEI grant to Alberta Innovates (AI) amounted to \$170 million in 2021-22 – an increase of 29% from \$131 million in 2020-21. AI also received an additional \$15 million in 2021-22 and increases of \$10 million in each year from 2022-23 through 2024-25 for enhanced accelerator and scale-up programming. The Invest Alberta Corporation received an additional \$25 million in 2021-22, up from \$6 million budgeted for 2020-21. The Government of Alberta planned to invest \$166 million over three years for the *Innovation Employment Grant* to encourage economic growth.

### **Federal Investment**

On April 19, 2021, the Government of Canada announced a \$360 million investment in a National Quantum Strategy and additional funding for research, students, and skills development. This announcement would create thousands of new work opportunities for youth and amplify Canada’s strength in quantum research globally. The federal budget also increased funding for life sciences and biomanufacturing. A recognized leader in life sciences, the University of Calgary attracts more funding per graduate student than any of the top 10 universities in Canada and has one of the fastest rates of growth.

## 6. Goals and Performance Measures

This section reports progress made toward the achievement of institutional goals. It includes a description of how UCalgary fulfilled its role and mandate as outlined in the *Post-secondary Learning Act*. The report is grouped within the five principle areas of the adult learning system (i.e., accessibility, quality, affordability, coordination, and accountability). Also included is a Framework for Growth developed to nurture education and learning, growth and innovation, and a sense of community and place over the next decade.

### **ADULT LEARNING SYSTEM**

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The University of Calgary is committed to the five principles of the provincial adult learning system (i.e., accessibility, quality, affordability, coordination, and accountability). Working with government, UCalgary has succeeded in delivering current, meaningful, and relevant high-quality programs to both undergraduate and graduate students at tuition levels that are for the most part lower than those at other research-intensive Canadian universities. Substantial resources have been committed to improve outreach to students across the province and to increasing the amount of financial aid available to students in need of assistance. Given these commitments, the University of Calgary has been a strong Campus Alberta partner working with other post-secondary institutions to ensure all Albertans have access to the advanced education they need to succeed in the modern economy and to become engaged citizens. The following is a brief description of UCalgary's commitment to each adult learning system principle.

#### **Accessibility**

The University of Calgary is committed to providing exceptional opportunities for qualified learners to achieve a post-secondary education in Alberta. We believe that it is not enough to accept students into our institution; we seek to ensure that the conditions for all students, faculty, and staff are in place that will allow them to flourish and succeed in a challenging academic environment. UCalgary has identified strategic priorities that support the principle of accessibility and complement the numerous programs already offered to students that support accessibility and student success. Examples include priority initiatives to diversify the student body, increase the number of graduate students, ensure supports are in place for all students, and continue to implement the sustainable enrolment growth model.

#### **Quality**

The constant growth of scientific and scholarly knowledge and the development of innovative teaching pedagogies have raised the bar for universities around the world. University of Calgary students expect and deserve the highest quality educational experience, one that is grounded in research, enriched by relevant and experiential learning opportunities, and embedded in a collaborative and community-based culture. We are invested in providing transformative educational experiences that are supported by the ongoing development of our passionate educators so that we can better engage and challenge students through effective and innovative teaching. We are also highly committed to engaging students beyond the classroom, focusing on experiential learning initiatives that will ensure that when students graduate, they are prepared to become the leaders of today and tomorrow. Examples of our commitment to this principle include priority initiatives to incent opportunities for interdisciplinarity, encourage pedagogical innovation, enable entrepreneurial and critical thinking across all our endeavours, create academic platforms, and promote leadership and innovation in sustainability.

### **Affordability**

The Government of Alberta and UCalgary are committed to preserving affordability for all students who seek a post-secondary education. Affordability of education is a complex issue and relates to the costs associated with tuition and fees and the financial aid available from a variety of sources. The University of Calgary engages thoughtfully and meaningfully with students around issues of tuition and fees to ensure accountability and transparency. We continue to increase financial support for students through scholarships and awards. In addition to ongoing programs and services available to students, the university has established priorities that align with the adult learning principle of affordability. Priority initiatives to advance affordability include enhancements to scholarships, bursaries, and other financial support for students, development of an awards program for undergraduate research, and enhancements to our doctoral scholarships program.

### **Coordination**

Alberta has created a diverse and differentiated system of post-secondary education that responds to the needs of learners through a six-sector model. The University of Calgary is committed to fulfilling the responsibilities outlined in our provincial mandate. We deliver educational programs of the highest quality through a broad selection of programs of study including baccalaureate, graduate, professional, and research-based master's and doctoral degrees. We are research leaders, helping to find solutions to the most important problems facing society. We are enthusiastic about collaborating with other academic institutions and community organizations to allow the Alberta post-secondary system to serve all adult learners. Examples of priority initiatives to enhance coordination include collaborations with local, regional, national and global communities to support innovation in the Calgary region, development of work-integrated learning opportunities, and enhancements to community-engaged scholarship and learning.

### **Accountability**

The University of Calgary is accountable to its many stakeholders: students, faculty, staff, parents, alumni, government, granting agencies, donors and the community. We engage stakeholders in several formal and informal ways, including a public report to the community, regular campus community updates and town halls. Most importantly, we submit documents such as this Annual Report that satisfy legislated requirements outlined within the *Post-Secondary Learning Act* (PSLA) and *Fiscal Planning and Transparency Act*. Other examples of our commitment to accountability include compliance with the PSLA and Labour Code, operating in accordance with Tri-Council mandates related to Open Access, and complying with Bill 19 – *An Act to Improve the Affordability and Accessibility of Post-Secondary Education*.

## **PERFORMANCE MEASURES**

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Achievement of our *Framework for Growth* goals is supported by a commitment to performance measurement. We have yet to identify measures specific to these new goals. However, we anticipate that our performance will continue to be benchmarked against the top five research institutions in Canada (i.e., University of Toronto, University of British Columbia, Université de Montréal, McGill University, and University of Alberta), where possible. This set of metrics best documents the value and impact of the University of Calgary to the Province of Alberta.

Measures under consideration related to future-focused program delivery include the number of students enrolled in modularized programs; students participating in micro-credential offerings; the number of programs that offer stackable certificates; the number of programs available in multiple modalities; and the number of programs offering experiential learning and work-integrated learning opportunities.

Measures under consideration related to deeper community partnerships and transdisciplinary scholarship include the number and quality of partnerships that we establish to advance complex societal issues and

innovation, and the number of transdisciplinary activity centres that we create to bring scholars together, marshal resources, and facilitate, and coordinate activity.

In years past, we reported annual progress through a set of performance measures related to specific outcomes (i.e., teaching and learning, research, scholarship, and innovation, and community and environment). These measures — some of which only yield data every few years — assess both quantitative and qualitative dimensions and reflect different facets of our organization. Shown in Table 1 is the year-over-year change in our performance on these measures. The COVID-19 global pandemic impacted recruitment of students as well as their progression through their programs. There were also special funds provided for continuity of research 2020-21 that were eliminated in 2021-22.

Table 1 – Performance Measures

#	Performance Measure	2020-21	2021-22	Change
<b>Teaching and Learning</b>				
1	Average Entering Grade from High School	86.7%	87.7%	1.0%
2	Undergraduate retention - 1st to 2nd year	95.4%	93.6%	(1.8%)
3	Graduate proportion of total enrolment - % Graduate	19.0%	21.0%	2.0%
4	Graduation Rate - Undergraduate	82.0%	82.0%	-
5	Graduation Rate - Master's Thesis (5 Years)	83.8%	85.2%	1.4%
6	Graduation Rate - PhD (9 Year)	75.6%	75.7%	0.1
7	Time to Completion – Undergraduate (# of Years)	4.5	4.5	-
8	Time to Completion – Master's Thesis	2.7	2.6	0.1
9	Time to Completion – PhD	5.2	5.0	0.2
10	Employment Rate*	-	-	-
11	Degrees Awarded – Undergraduate	5,114	5,681	567
12	Degrees Awarded – Graduate	2,091	2,542	451
13	National Survey of Student Engagement - First year (Entire Ed. Experience) *	78%	-	-
14	National Survey of Student Engagement - Senior year (Entire Ed. Experience) *	74%	-	-
15	Canadian Graduate and Professional Student Survey (CGPSS) - Overall Quality*	84.7%	80.9%	(3.8%)
<b>Research, Scholarship, and Innovation</b>				
16	Total Tri-Council Funding (\$ million)	117.8	111.9	(5.9)
17	Total Tri-Council Funding (\$ million) Per Tenure and Tenure-Track Faculty	80.0	76.4	(3.6)
18	Total Social Science and Humanities Research Council (SSHRC) (\$ million)	13.4	9.4	(4.0)
19	Total Natural Sciences & Engineering Research Council (NSERC) (\$ million)	38.5	36.6	(1.9)
20	Total Canadian Institutes of Health Research (CIHR) (\$ million)	66.0	65.9	(0.1)
21	Total Sponsored Research Funding (\$ million)	504.5	506.1	1.6
22	Total Sponsored Research Funding (\$000) Per Tenure and Tenure-Track	342.5	345.7	3.2
23	Publications (Total 1-Year)	6,715	7,565	850
24	Publications Per Tenure and Tenure-Track Faculty (Total 1-Year)	4.56	5.17	0.61
25	Citations (Total 1-Year)	27,332	28,359	1,027
26	Citations Per Tenure and Tenure-Track Faculty (Total 1 Year)	18.56	19.37	0.81
27	Field-Weighted Citation Impact	1.49	1.49	-
28	Juried exhibitions and performances	-	-	-
29	Number of Postdoctoral Scholars	565	589	24
30	Number of Postdoctoral Scholars Per Tenure and Tenure-Track Faculty	0.38: 1	0.40:1	0.02:1
31	Start-Ups Created – 3-Year Running Total	59	61	2
32	New Inventions and Innovations – 3-Year Running Total	394	315	(79)
33	New Licenses – 3-Year Running Total	35	28	(7)
34	Patents Submitted – 3-Year Running Total	208	125	(83)
<b>Community and Environment</b>				

#	Performance Measure	2020-21	2021-22	Change
35	Alumni engaged (number)	11,071	12,439	1,368
36	Alumni engaged (percent)	7.3%	7.4%	0.1%
37	Fundraising (annual \$ millions total)	122.4	134.4	12.0
38	Sustainability Tracking, Assessment and Rating System (STARS)	80.5%	-	-
39	Likelihood of Canadians to recommend UCalgary – General Public*	-	-	-
40	Likelihood of Canadians to recommend UCalgary – Affiliates*	-	-	-
41	Likelihood of Albertans to recommend UCalgary – General Public*	-	-	-
42	Likelihood of Albertans to recommend UCalgary – Affiliates*	-	-	-

\* This measure only yields data every few years.

## 7. Financial Information

This section uses the budget submitted to Advanced Education at the beginning of the fiscal year to identify key variances between budgeted statement of operations and actual audited results. It also provides a detailed explanation for all material variances so that issues affecting the financial situation are clear. Included is a discussion of the strategies employed to mitigate financial risk, and results achieved during the fiscal year.

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This Management Discussion and Analysis (“MD&A”) should be read in conjunction with the University of Calgary’s (“the University”) consolidated financial statements and accompanying notes for the year ended March 31, 2022. The MD&A and consolidated financial statements are reviewed and approved by the University’s Board of Governors on the recommendation of the University’s Audit Committee. The University’s consolidated financial statements have been prepared in accordance with Canadian Public Sector Accounting Standards (“PSAS”).

The MD&A is an overview of the University’s financial results for the year ending March 31, 2022 and offers analysis of the University’s:

1. Operating Environment
2. Financial Results
3. Net Assets and Net Financial Assets
4. Capital Expansion and Renewal
5. Areas of Significant Financial Risk

### **OPERATING ENVIRONMENT**

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The University of Calgary is working hard to provide a truly exceptional learning environment and grow our intellectual and economic impact in this great city. After a decade of astonishing growth, we faced new headwinds in 2021-22. Reduced funding, disruption in post-secondary education, and an economic recession were all accelerated by a global health emergency that forced a fundamental reimagining of the university experience. In response to COVID-19, we implemented several protocols to protect the campus community that ranged from offering classes through a hybrid delivery model to restrictions on international travel, and the cancellation or postponement of in-person events. We also developed a strategy to keep our eyes high and strengthen our community in these uncertain times. Our new Framework for Growth is built around three “big ideas” that will differentiate our university and drive growth – future-focused program delivery, deeper community partnerships, and transdisciplinary scholarship. They will set the University of Calgary on a course to be the entrepreneurial university – one where students, faculty and staff have access to more tools to change the world around them. These ideas will empower world-class faculty members to tackle society’s big problems and enable the leaders that make up our student body to write their own future. As the province continues to recover from the many challenges caused by the COVID-19 pandemic, the University of Calgary intends to play a pivotal role to support the Government of Alberta to achieve its adult learning system goals, not only through research, innovation and commercialization of leading edge technology, but also in providing highly skilled and job-ready graduates for a recovering and dynamic labor market.



## **FINANCIAL RESULTS**

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For the year ended March 31, 2022, the University's revenues exceeded expenses by \$26.3 million. This annual operating surplus increased from the \$10.1 million deficit in 2021. The most significant drivers contributing to the \$26.3 million surplus include higher than anticipated sales of products and services resulting from the campus returning to in person teaching and learning, increased tuition revenues, and additional income from increased clinical trial and research activities. These revenue increases are partially offset by the reduction of Campus Alberta operating grant and an increase in costs, particularly salaries and benefits and materials, supplies, and services.

Total net assets have increased by \$43.5 million from March 31, 2021 as the result of \$26.3 million of annual operating surplus, \$9.0 million of endowment donations, and \$27.6 million of capitalized endowment income, which are partially offset by the \$19.4 million decrease in unrealized gains on portfolio investments.

## REVENUE

Total revenues for the year ended March 31, 2022 were \$1,469.1 million, an increase of \$75.9 million (5.5%) compared to the prior year and \$70.1 million (5.0%) over budget. Revenue from the Government of Alberta represented the University's single largest source of income, at 41.5% of total University revenue, and played a key role in the ability to fund University activities. Major components of revenue are as follows:

Figure 1 – Revenue (% percent)

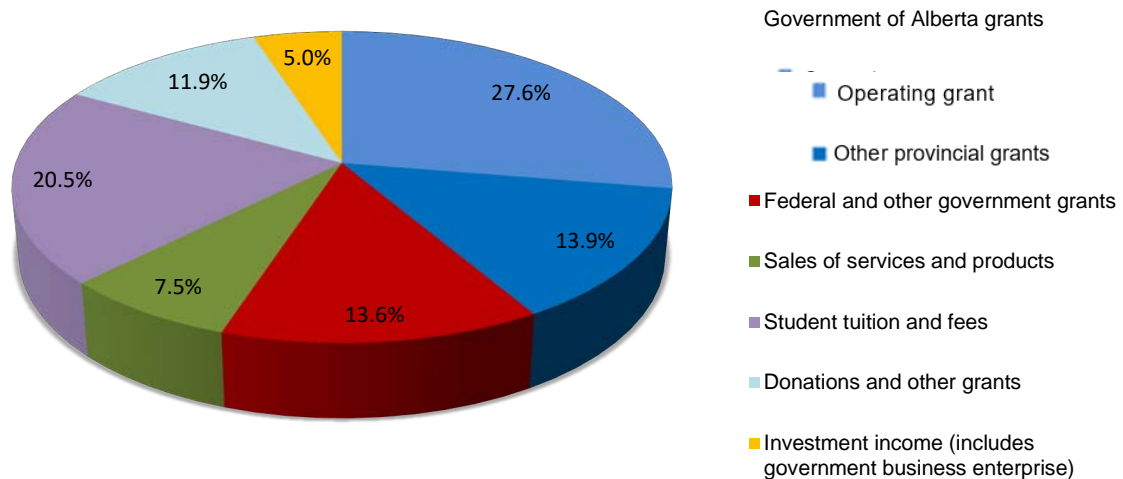
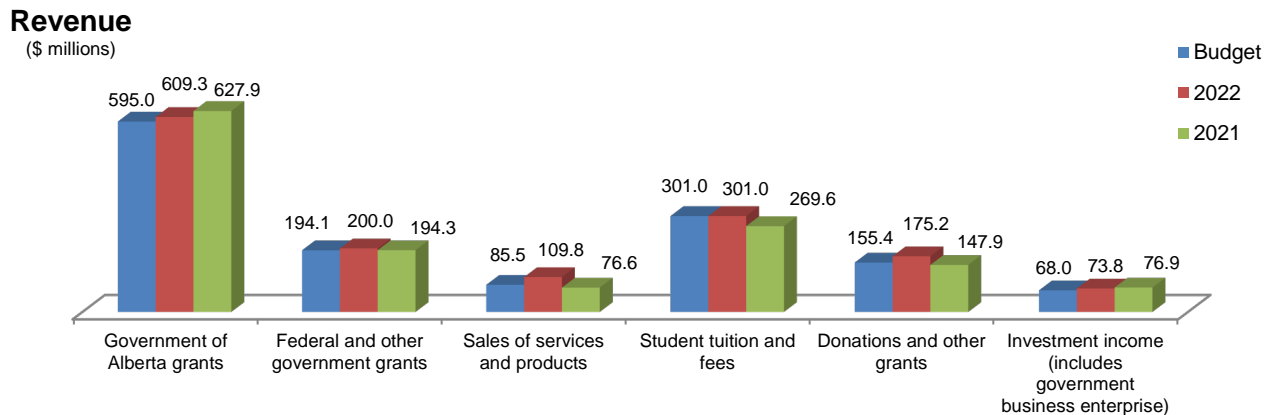


Figure 2 – Revenue (\$ millions)



### GOVERNMENT OF ALBERTA GRANTS

Government of Alberta grant revenue of \$609.3 million was \$18.6 million lower than prior year and \$14.3 million higher than budget. The decrease over prior year is primarily the result of the Government of Alberta's \$25.0 million in-year reduction to the Campus Alberta operating grant. The variance from budget is due to a higher than expected provincially funded externally restricted research revenue, increased

funding from Alberta Precision Laboratories for clinical supplements, and additional salary recovery funding from Alberta Health Services for Program Directors.

#### **FEDERAL AND OTHER GOVERNMENT GRANTS**

Grant revenue from federal and other government sources of \$200.0 million was \$5.7 million higher than prior year and \$5.9 million higher than budget. The increase compared to prior year and budget is a result of \$4.8 million of additional municipal and US government grants combined with increased funding from the Qatar Ministry of Finance and Continuing Education.

#### **SALES OF SERVICES AND PRODUCTS**

Sales of services and products revenue of \$109.8 million was \$33.2 million higher than prior year and \$24.3 million higher than budget. The increase is primarily due to increased ancillary services revenues associated with returning to in-person activities on campus including higher residence occupancy, increased parking revenues, and increased bookstore and food revenues, combined with increased University District Trust lease revenue.

#### **STUDENT TUITION AND FEES**

Student tuition and fees of \$301.0 million was \$31.4 million higher than prior year and consistent with budget. The increase is primarily due to tuition rate increases, increased international students and an increase in non-credit tuition from Continuing Education programs.

#### **DONATIONS AND OTHER GRANTS**

Donations and other grant revenue of \$175.2 million was \$27.3 million higher than prior year and \$19.8 million higher than budget. The increase is primarily attributable to higher revenue from grant funded clinical trials and higher than expected donations and other grants from various foundations and institutes.

#### **INVESTMENT INCOME – INCLUDING INVESTMENT INCOME IN GOVERNMENT BUSINESS ENTERPRISE**

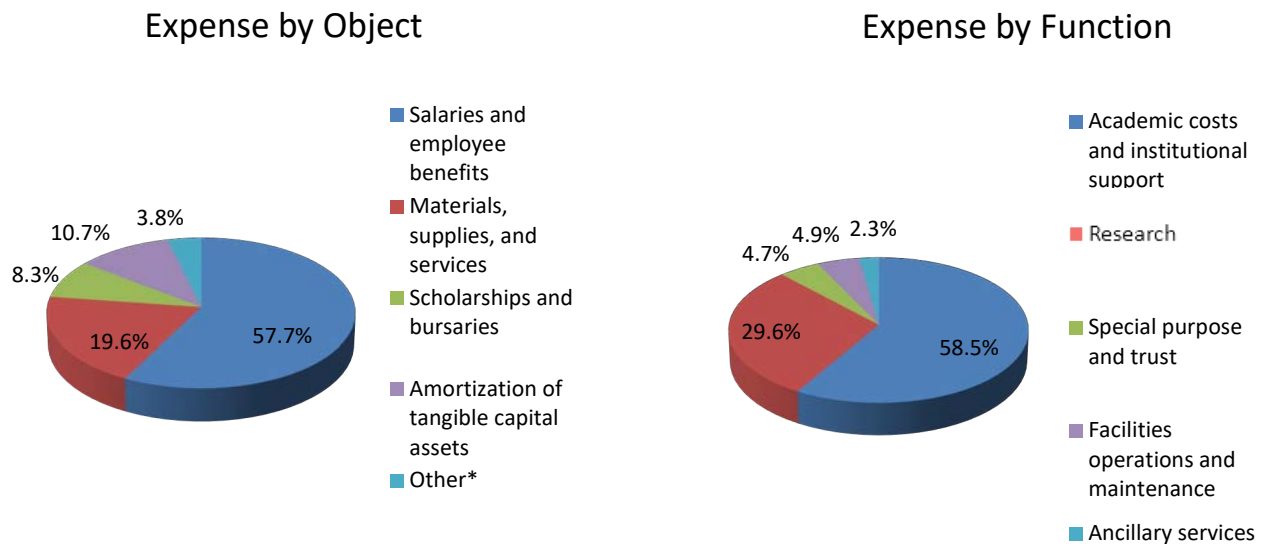
Investment income (including investment income in government business enterprise (“GBE”)) of \$73.8 million was \$3.1 million lower than prior year and \$5.8 million higher than budget. While the amounts are lower from the prior year in part due to reduced realized investment income from non-endowed investments. The amounts are higher than budgeted due to \$2.7 million in higher than anticipated income on endowment investments, \$2.1 million higher than planned income on non-endowed investments, and \$1.0 million higher than budgeted income related to the consolidated results of the University District Trust (“UDT”).

## EXPENSE

For the year ended March 31, 2022, the University recorded \$1,442.8 million in expenses representing an increase of \$39.5 million (2.8%) from the prior year and \$43.9 million (3.1%) higher than budget. Salaries and benefits are the largest expenditure component at the University, representing 57.7% of the University's expenses.

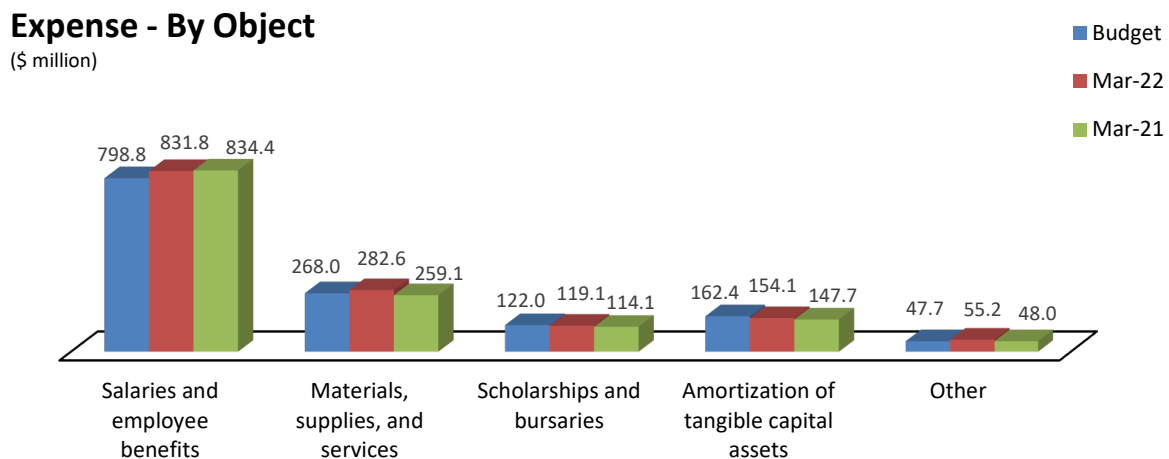
Academic costs and institutional support represent the single largest function at the University, with this function representing 58.5% of the University's expenses. This includes instruction, non-research academic and administrative support activities, effectively representing the operating activities of the University.

Figure 3 – Expense by Object and by Function



\*Other expenses include: Utilities, Maintenance and repairs, and Cost of goods sold.

Figure 4 – Expense by Object (\$ millions)



## **SALARIES AND EMPLOYEE BENEFITS**

Salaries and employee benefits of \$831.8 million have decreased by \$2.6 million over the prior year and are \$32.9 million higher than budgeted amounts. The decrease over prior year is mainly due to \$10.4 million in reduced operating salaries and benefits costs primarily from a reduction in University Academic Pension Costs and \$7.6 million in reduced strategic initiative costs. These reductions were partially offset by \$15.4 million in higher than expected externally funded research salaries and benefits. The budget variance is primarily due to increase in externally restricted research salary costs attributed to growing research and special purpose funding and related activities and higher than budgeted strategic initiative costs being partially offset by operating savings.

## **MATERIALS, SUPPLIES AND SERVICES**

Materials, supplies and services of \$282.6 million represent the second largest expense component of the University with current year costs \$23.5 million higher than the prior year and \$14.6 million higher than budget. Materials, supplies and services are higher due to the increased on-campus activities and research-related travels from the lifting of COVID-19 restrictions in addition to the unanticipated increased research project spending primarily in the Cumming School of Medicine.

## **SCHOLARSHIPS AND BURSARIES**

Scholarships and bursaries of \$119.1 million were \$5.0 million higher than the prior year and \$3.0 million below budget. The increase of scholarships and bursaries over prior year is in line with the University's goals to attract and support students across various faculties. The budget variance is primarily due budget timing differences relating to making the funds available and having the scholarships and bursaries awarded and disbursed.

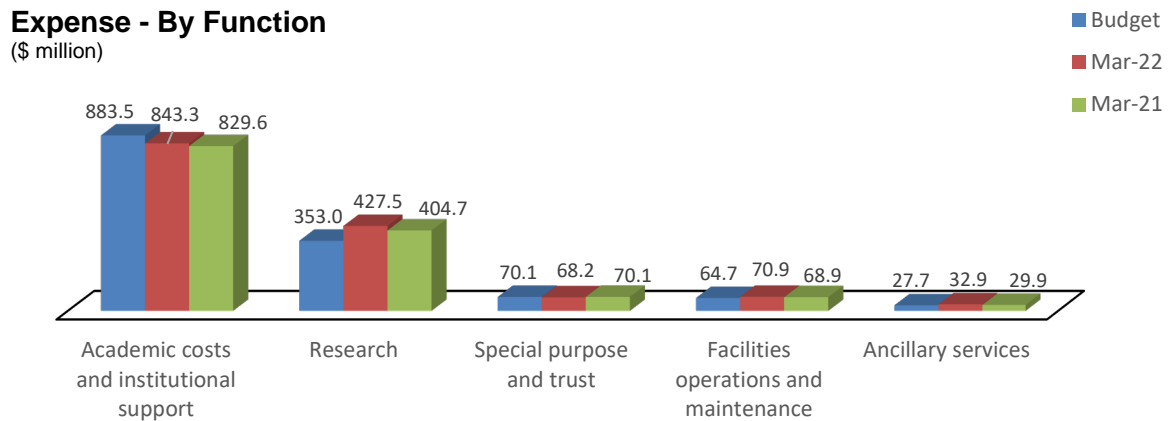
## **AMORTIZATION OF TANGIBLE CAPITAL ASSETS**

Amortization of tangible capital assets expense of \$154.1 million increased by \$6.4 million from the prior year while being \$8.3 million below budgeted expectations. The increase from prior year is a result of new assets transferred into service during the year, primarily related to the completion of the Tower portion of the MacKimmie Complex and Professional Faculties Building redevelopment, along with additional software purchases and institutional program division (IPD) projects that were completed. The budget variance is mainly due to the project schedule delays of some infrastructure spending to fiscal 2023.

## **OTHER**

Other expenses totaling \$55.2 million were \$7.2 million higher than prior year and \$7.5 million higher than budgeted amounts. The increase is primarily the result of the higher utility costs as a result of utility rate increases and return to in-person campus activities, resuming Ancillary operations and the related higher maintenance and repair expenditures.

Figure 5 – Expense by Function (\$ millions)



### ACADEMIC COSTS AND INSTITUTIONAL SUPPORT

Academic costs and institutional support expenses of \$843.3 million increased by \$13.7 million over the prior year while being \$40.2 million lower than budgeted expectations. The increase over prior year is due primarily to additional materials and supplies related to increase on campus and in-person activities compared to the prior year that was a predominantly remote learning and work environment. Although academic costs and institutional support were higher than the prior year, the costs were lower than expected primarily due to timing in hiring vacant positions as well as temporary layoffs and lower than planned materials supplies and services costs associated with the unexpected closure of campus during the fall of 2021.

### RESEARCH AND SPECIAL PURPOSE AND TRUST

Research costs of \$427.5 million were \$22.8 million higher than prior year and \$74.5 million higher than budget. These increases are mainly the result of higher the university's continued growth in externally funded research activities resulting in increased salary costs as well as materials and supplies used in research projects. Special purpose and trust costs of \$68.2 million were \$1.9 million lower than prior year and \$1.9 million lower than budgeted amounts primarily due to reductions in salaries, benefits and materials, supplies, and services purchased for non-research activities.

### FACILITIES OPERATIONS AND MAINTENANCE

Facilities operations and maintenance costs of \$70.9 million were \$2.0 million higher than prior year and \$6.2 million higher than budget. The increase from prior year relates to the higher maintenance and repairs associated with operating a growing and aging campus infrastructure, in addition to the increased usage of utilities associated with the reopening of campus buildings and higher costs in natural gas.

### ANCILLARY SERVICES

Ancillary expenditures of \$32.9 million were \$3.0 million higher than prior year and \$5.2 million higher than budget primarily due to increased cost of goods sold from resuming campus activities and increased sales-related expenses from Ancillary operations.

## NET ASSETS AND NET FINANCIAL ASSETS

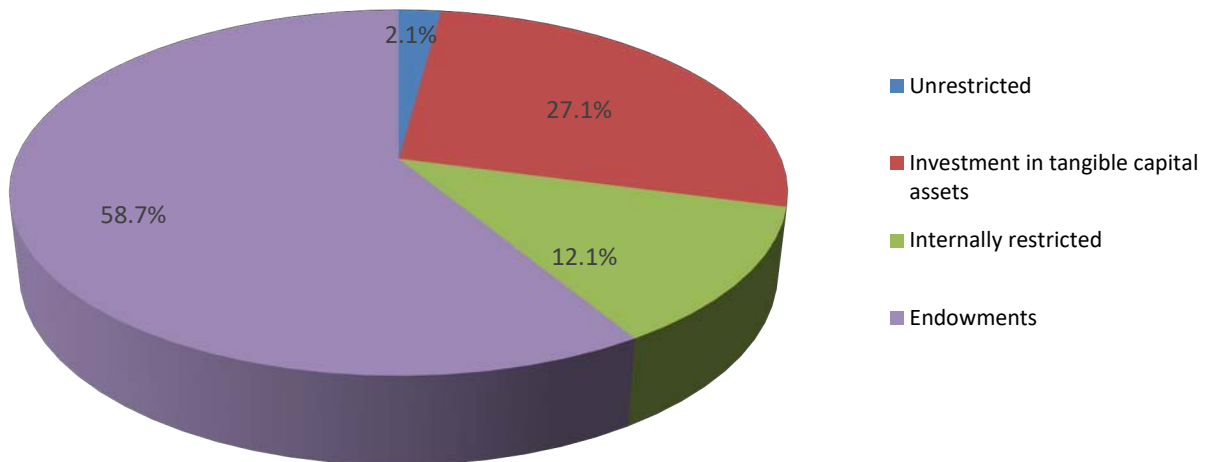
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### NET ASSETS

The University's net asset balance is an important indicator of financial health for the University. Prudent financial planning and strategic decision-making combined with capitalized investment income from portfolio investments have contributed to the University's \$1,981.4 million in net assets. Endowments of \$1,162.9 million continue to represent the largest component of Net Assets. Endowments must be maintained in perpetuity. Investment income earned is used to fund specific research, scholarship, and donor supported initiatives.

The remaining \$818.5 million in net assets, includes \$536.7 million of funds previously spent as a net investment in capital assets and \$239.2 million of funds formally restricted by the University's Board of Governors for spending on strategic initiatives in support of student learning, research, capital projects, and community service. During the fiscal year ended March 31, 2022, the Board redirected internally restricted net asset amounts to fund strategic capital construction programs on campus. The academic, institutional, and research initiatives previously funded by internally restricted net assets are ongoing and will be funded through the University's annual budgeting process. In addition, the University used unrestricted net assets to fund \$35.7 million of capital construction and capital purchases and \$6.4 million to repay University debt. After amounts spent on capital assets, Board of Governors restrictions, and debt repayment, \$42.7 million remains in unrestricted net assets. Net assets at March 31, 2022 are comprised of the following balances and related summarized transactions:

Figure 6 – Net assets at March 31, 2022



## NET ASSETS (CONTINUED)

Table 2 – Net assets at March 31, 2022 (\$ thousands)

As at March 31, 2022 (\$ thousands)	Unrestricted	Investment in Capital Assets	Internally Restricted	Endowment	Total
<b>Balance as at March 31, 2021</b>	<b>\$ 30,222</b>	<b>\$ 509,772</b>	<b>\$ 278,017</b>	<b>\$ 1,119,998</b>	<b>\$1,938,009</b>
<b>Annual surplus</b>	26,284	-	-	-	26,284
<b>Transfer to internally restricted net assets net of expenditures</b>	(21,286)	-	21,286	-	-
<b>Endowment</b>					
New contributions	-	-	-	8,987	8,987
Capitalized investment income	-	-	-	27,567	27,567
<b>Tangible capital assets</b>					
Acquisition of tangible capital assets	(35,735)	95,857	(60,122)	-	-
Amortization of tangible capital assets	57,409	(57,409)	-	-	-
Debt repayment	(6,370)	6,370	-	-	-
Debt new financing	17,883	(17,883)	-	-	-
<b>Change in accumulated remeasurement gains</b>	(25,726)	-	-	6,310	(19,416)
<b>Balance as at March 31, 2022</b>	<b>\$ 42,681</b>	<b>\$ 536,707</b>	<b>\$ 239,181</b>	<b>\$ 1,162,862</b>	<b>\$1,981,431</b>

## NET FINANCIAL ASSETS

The University's liquidity needs are met primarily through operating cash flows, working capital balances and capital expansion funding received through grants or long-term debt. The Net Financial Asset indicator is intended to identify the availability of net financial resources of an organization to fund future operations after considering liabilities owed to third parties. The University presents the Net Financial Asset indicator in a manner as directed by the Controller of the Province of Alberta. The presentation includes \$1,162.9 million of investments that are restricted for endowments. Portfolio investments – restricted for endowments must be maintained in perpetuity and are therefore not available to pay for University liabilities, nor can the University use the endowment portfolio investments to pay for future operating or capital purchases. As a result, net financial assets excluding portfolio investments restricted for endowments is presented on the Consolidated Statement of Financial Position.

At March 31, 2022, Net Financial Assets excluding portfolio investments restricted for endowments is \$106.3 million, representing a \$39.0 million decrease from the prior year figures. The University continues to have sufficient positive Net Financial Assets, demonstrating financial strength and commitment to managing the University's financial position.



## CAPITAL EXPANSION AND RENEWAL

Continuation of capital expansion and renewal projects remains a critical priority for the University, contributing not only to the student learning experience and the quality of research activity, but also positively to the Calgary economy. In 2022, the University expended \$192.2 million (2021 - \$160.5 million) on construction and other capital asset acquisitions. This capital activity represents the continuation of the University's multi-year capital building program through construction of new buildings as well as redevelopment, renovation, and numerous instructional facility upgrade projects.

The following represents progress on the top five major construction projects on campus:

Table 3 – Top five major construction projects

Major Capital Project Costs (\$ thousands)	2022	Expenditures to Date	Total Budget
MacKimmie Complex and Professional Faculties Building Redevelopment	62,490	283,439	320,000
Life Sciences Research Centre	3,028	9,457	130,000
Mathison Hall	42,070	68,127	93,980
Capital Maintenance and Renewal (CMR)	5,090	5,090	31,054
Utility Reduction, Grant Program	5,817	10,537	18,000

### MACKIMMIE COMPLEX AND PROFESSIONAL FACULTIES BUILDING REDEVELOPMENT

The project will completely renew and repurpose the MacKimmie Complex, including targeted renovations to the Professional Faculties Building (PFB), associated with the relocation of the Faculty of Social Work to the MacKimmie Tower and backfill of the space to accommodate Faculty of Nursing expansion. The project represents an opportunity to address many challenges, as part of one integrated project. Making the best use of two existing buildings will reduce operating costs, co-locate and centralize student and staff services in the heart of our campus, alleviate space pressures within the Social Work and Nursing Faculties and bring the Facility Condition Index (FCI) of the MacKimmie Tower and Block to near zero.

### LIFE SCIENCES RESEARCH CENTRE (FORMALLY INTERDISCIPLINARY SCIENCE AND INNOVATION CENTRE)

The project will provide critical new space on main campus that will help maintain and enhance the university's interdisciplinary research strength for life and environmental sciences curriculum in the Faculties of Science, Arts, Kinesiology, Veterinary Medicine, and the Cumming School of Medicine. The full Life Sciences Research Centre program contemplates the construction of a new building to meet current expectations for technology-rich, specialized research and support spaces. The project will consist of the co-locating of disparate labs across the campus into modern, purpose-built facilities and adjacent spaces that support the institution's academic and research operations.

### MATHISON HALL

The project primarily consists of the development of a new, innovative, Leed Platinum (net-zero) building on campus with approximately 10,000 m<sup>2</sup> to meet modern expectations for technology-rich, flexible teaching and research space required for the Haskayne School of Business. The new building will be situated immediately adjacent to Scurfield Hall and will incorporate pedestrian connectivity to Scurfield Hall. The project scope will also include landscaping, IT and furnishings, fixtures, and equipment.

## **CAPITAL MAINTENANCE AND RENEWAL (CMR)**

This grant provides funds to post-secondary institutions on an annual basis to assist with maintaining the condition of facilities and to cover the cost of repairs, upgrades, maintenance, and replacement of building systems and major building components. The grant covers the cost of minor functional renovations and upgrading projects that are required to meet program delivery needs and are associated with deferred maintenance projects. Institutions may access other funding sources available to complement the CMR grant, including a portion of the institution's Base Operating Grant.

## **UTILITY REDUCTION, GRANT PROGRAM**

The University of Calgary has implemented a multi-year Utility Reduction Program to reduce institutional greenhouse gas emissions and operating costs. The scope of the Utility Reduction Program consists of several medium-sized retrofit projects with a primary focus on the Foothills campus and smaller investments on main campus. The projects include HVAC and controls upgrades in classrooms and laboratories as well as lighting retrofits, installation of energy recovery systems and energy performance optimization of targeted buildings.

## **AREAS OF SIGNIFICANT FINANCIAL RISK**

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### **DEFERRED MAINTENANCE**

The University directs significant resources to ensure that University buildings are updated with relevant technology, operated efficiently, meet or exceed university and external regulatory standards. The University has an outstanding deferred maintenance balance of \$641.8 million (2021 - \$529.5 million). The Capital Maintenance and Renewal (formerly named Infrastructure Maintenance Program) funding from the province increased to \$31.1 million (2021 - \$22.5 million) and was used to address deferred maintenance.

### **UNFUNDED PENSION LIABILITY**

The University participates, with other Alberta post-secondary institutions, in the UAPP to provide defined-benefit pensions for participating faculty and staff. The extrapolated actuarial deficiency for the pension plan at March 31, 2022 is \$247.9 million (2021 - \$817.4 million). The University's portion of the deficiency is \$4.0 million (2021 - \$103.7 million). This unfunded deficiency in the UAPP is currently being funded by the Government of Alberta, employee and employer contributions. The deficiency is expected to be eliminated by 2043.

### **BUDGETARY PRESSURE**

In the 2022 fiscal year, the University received a 6.0 percent reduction on its Campus Alberta grant. Although the University has produced a balanced budget for 2022, provincial funding is expected to continue to decrease by an additional 5.2 percent in fiscal year 2023. Cost savings to address these cuts were achieved largely through workforce reductions, reductions in discretionary spending, and the cancellation or deferral of major projects. Plans to mitigate these risks include expenditure reductions in targeted areas, the achievement of greater efficiencies in the University's operations, and the identification of new sources of revenue. Through our prudent fiscal management and a willingness to partner with government, the University will continue to work toward mitigating risks to ensure we continue to deliver on Eyes High strategy and mandate while ensuring that budgets remain balanced.

## 8. Capital Report

In this section we report progress on priority capital projects that are essential to support the outcomes identified in the institutional 2021 Capital Plan. Priority capital projects are defined as those projects that must proceed in the next three to five years to address critical infrastructure and capacity needs; and are more than \$2.5 million or 50 percent of the institution's Infrastructure Maintenance Grant, whichever is larger.

Within the Capital Maintenance and Renewal (CMR) program, formerly known as the Infrastructure Maintenance Program (IMP) grant, the projects below are those that exceed 50 percent of the 2021-22 CMR funding grant. Priority capital projects support the University of Calgary's access, quality, and research goals, critical health and safety issues, and critical information technology infrastructure.

Table 4 – Capital projects by type and funding source

Type	Project Description	Total Project Cost	Funding Sources	Funding Received to Date and Source	Revised Funding Sources
New	Life Sciences Research Centre (LSRC)	\$130 million <sup>1</sup>	100% PSI Funds	\$6.4M PSI	
New	Mathison Hall	\$94 million	56% PSI Funds 44% Donation	\$50.0M PSI \$28.6M Donation	
New/Maintenance	MacKimmie Complex and Professional Faculties Building Redevelopment	\$320 million	87% GoA 10% PSI Funds 3% Donation	\$247.2M GoA \$0.6M interest on GoA \$10.0M Donation	
Maintenance	Capital Maintenance and Renewal (CMR) Program	\$31 million	100% GoA	\$0	
Maintenance	Utility Reduction Grant Program	\$18 million	47% GoC 53% PSI Funds	\$0.8M GoC \$8.3M PSI	

1) LSRC Project budget reduced in 2021-22 due to institutional budget constraints.

Table 5 – Capital projects by timeline and status

Project Description	Project Timeline	Expected Project Start	Expected Project Completion	Project Status	Progress Made in Last 12 Months
MacKimmie Complex and Professional Faculties Building Redevelopment	April 2016 – August 2022	April 2016	August 2022	Construction	Tower complete. PFB renovations complete. Abatement and demolition of Block and Link complete construction of Hunter Student Commons underway.
Mathison Hall	December 2018 – August 2022	December 2018	October 2022	Construction	Design complete, construction underway.
Interdisciplinary Science and Innovation Centre	January 2019 – June 2024	January 2019	June 2024	Design	Principal design consultants and project manager engaged.
Utility Reduction Program, Grant Program	October 2019 – March 2022	October 2019	March 2022	Planning, Design and Construction	Design complete for phases 1 through 3. Phase 1 construction complete, phase 2 & 3 in construction.

## 9. Research, Applied Research, and Scholarly Activities

This section reports research and innovation accomplishments as they pertain to current provincial outcomes. The presentation of these outcomes is structured to be reflective of government direction during fiscal year 2021-22 which proceeded under Alberta Research and Innovation Framework (ARIF). We also note that in April 2022 Alberta Technology and Innovation Strategy (ATIS) was released, and at the end of this document we provide a summary of how our research and innovation enterprise already supports the priorities of ATIS and will continue to evolve to fulfill its goals.

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The University of Calgary plays an important role within Alberta's research and innovation system. It creates the talent and expertise that helps sustain the competitiveness of businesses, entrepreneurs, government and not for profits. It connects Alberta and its businesses to the global reservoir of leading-edge ideas and approaches in international jurisdictions. The University of Calgary also translates research, discovery and application to incent innovation and support community organizations and commercial opportunities for industry. Partners in Alberta's research and innovation system range from the government and its agencies, through federal and municipal organizations, to the post-secondary sector and industry.

With over 35,000 students, 575 postdoctoral scholars, and 1,800 faculty actively engaged in transdisciplinary discovery, creativity, and innovation supported by 3,200 staff, UCalgary has impact across Alberta as a major driver for both economic prosperity and quality of life for Albertans. As a Comprehensive Academic and Research University (CARU), our responsibility is to produce the next generation of leaders who experience the best possible training in acquiring and creating new knowledge.

While our research has focal areas of priority, we strive for scholarly excellence in all the disciplines that comprise our 14 Faculties and we create platforms to support our students and faculty to excel in their individual academic endeavours. Through our interlocked Academic and Research Plans, we have broken down several traditional barriers or trade-offs that are frequently viewed as impediments to national and international performance in research and scholarly activity (e.g., pure versus applied research, modes of collaboration, student engagement).

The scholarly environment at UCalgary encourages our students, faculty, and staff to take on the tough challenges facing our society and to draw expertise from across all our domains to provide evidence-based solutions that will enhance Alberta's reputation on national and global stages. Going forward, UCalgary has identified and initiated a critical emphasis on the development of a sharp focus on innovation and application of discovery research, with the objective to impact positively the future of Alberta through expanded economic diversification, in alignment with the Government of Alberta's priorities, including the current draft of the Alberta Technology and Innovation Strategy ATIS).

Outcomes that empower government ministries and innovation system stakeholders to continue to work together to deliver results and benefits for Albertans include:

- economic diversification and job creation;
- environmental stewardship and climate leadership;
- effective resource management; and
- engaged individuals and communities for a healthy Alberta.

New knowledge created by our students and faculty through their research and supported by our systems for knowledge translation and innovation is a major driver to achieve these provincial outcomes. We highlight below how the research capacity in innovation strategies at UCalgary contributes to these desired outcomes, how we foster excellence in research and scholarly activity, and how we contribute strategically to the research and innovation system in Alberta via collaborations with other institutions.

### **Economic Diversification and Job Creation**

Economies grow when new ideas, new talent, and new capital come together to both create new opportunities as well as providing services valued by our societies. UCalgary impacts our province through its significant contributions in all these components. Recent data shows that we rank among the top five institutions in Canada in graduation rates, time to completion, and employment rate for our undergraduate students. We are producing the next generation of leaders who are equipped to prosper in innovation-based economies.

UCalgary has attracted some of the world's best faculty, postdoctoral scholars, and graduate students, driving us towards our goal of becoming a top five research university in Canada. These recruitments and the excellence of our existing scholars have resulted in significant external research revenue growth. This funding contributes significantly to creating jobs in the province for research assistants and technicians and training opportunities for undergraduate and graduate students.

The University of Calgary is highly competitive in national grant competitions such as the programs offered by the Natural Sciences and Engineering Research Council of Canada (NSERC), the Canadian Institutes for Health Research (CIHR), the Social Science and Humanities Research Council (SSHRC) and the Canada Foundation for Innovation (CFI). For example, in major competitions offered by the CIHR since our last Annual Report, we ranked between third and fifth in total funds received by institution, nationally. In the 2022 CIHR Health Research Training Platforms pilot program competition, UCalgary received 4 grants out of 13 awarded nationally – the most of any single institution nationally. In the most recent New Frontiers in Research Fund (NFRF) Explorations program, UCalgary received 8 grants, the highest number awarded to a single institution. Lastly, in 2021 our allocation of 11 Canada Research Chairs was among the top two increases in chair allocations nationally.

Over the past decade, we have moved from ninth to fifth place in Canada, as ranked by ReSearch Infosource Inc., which ranks external research revenue generation. UCalgary is the youngest university to reach the top five of this ranking. Leveraging funding from federal, industry, and philanthropic sources is important for Alberta to achieve both its provincial outcomes and innovation targets. In 2021-22, the University of Calgary brought in **\$506.1 million** in research revenue (please see full chart on page 20 for more details).

Based on the combined efforts of Innovate Calgary and our Research Services Office, UCalgary excels nationally in three key metrics in commercialization and knowledge translation: disclosures, agreements and start-up companies. UCalgary was ranked the number one start-up creator in Canada in 2021 by the Association of University Technology Managers (AUTM). These are leading-edge metrics for inputs to economic growth. We have developed social innovation programming and supports to encourage social enterprise across our faculties. These include the Social Innovation Hub operated by Innovate Calgary, that will find and accelerate innovations that serve people and the planet, and the Social Innovation Initiative, that enables faculties to mobilize their academic experience and transdisciplinary expertise into solutions for complex social problems. Our expanding social innovation supports have resulted in early successes like MoveImprove (Werklund School of Education and Innovate Calgary) and CareFind (Haskayne School of Business).

UCalgary is actively engaged in initiatives to advance the innovation and entrepreneurial ecosystem at the municipal, provincial, and national levels that help to promote a strong economy in Alberta. We are assisting in the industry-led proposals for innovation in clean tech, agriculture, and health that are priority areas supported by the Province of Alberta. With three of our entrepreneurially-focused entities (i.e., Innovate Calgary, Hunter Hub for Entrepreneurial Thinking, and Creative Destruction Lab – Rockies), we continue to drive the growth of an innovation ecosystem in southern Alberta, thus contributing to the diversification of Alberta's economy.

Looking forward, we are excited to undertake leadership or active engagement on several provincial and federal opportunities in Quantum Science and Technologies, a key component of our *Human Dynamics* theme. These opportunities include continuing to play a leadership role in the developing *Quantum Alberta* pan-provincial organization, leading Alberta's Major Innovation Fund investment in *Quantum Technologies* to the benefit of all Alberta researchers in the field and positioning Alberta within the rapidly developing Quantum Canada landscape. The Quantum City initiative, involving the province, UCalgary, and Mphasis will expand quantum technology capacity, establish quantum infrastructure, talent development programs and commercialization pathways to support the development of a vibrant economic and scientific hub based in Calgary. Quantum City is enabling the launch of new training programs that will ensure Alberta has a robust talent pool for industry to draw from. Training will include a professional master's degree in quantum computing and a quantum stream in a new engineering physics undergraduate program being launched in 2023, industry internships, research scholarships and fellowships, and training tools developed with the university's anchor industry partner Mphasis. The university is already working with Calgary Economic Development to build on this momentum to grow this sector further for the province. UCalgary is also contributing expertise to the Creative Destruction Lab Quantum stream, engaging with entrepreneurs, investors, and industry partners to build ventures in this emerging domain.

UCalgary is also playing a leadership role in helping to grow the Alberta tech sector in cybersecurity. As a founding member of the National Cybersecurity Consortium (NCC), UCalgary will help lead the federal government's new Cyber Security Innovation Network (CSIN). Led by the NCC, CSIN will enhance research and development, increase commercialization, and develop skilled cybersecurity talent across Canada. As a founding member of the NCC, we have the opportunity to demonstrate UCalgary's leadership in fundamental and applied cybersecurity, while also attracting partnerships, funding, and new talent to our institution.

UCalgary's cybersecurity strength also includes the new Canadian Cyber Assessment, Training and Experimentation Centre (CATE). CATE is equipped with a state-of-the-art, highly automated cyber range, a virtual environment that supports a range of activities. CATE can emulate complex real-world digital enterprises, such as cyber assessment, experimentation, and multi-purpose integration labs. The facility supports students in building their skills in cybersecurity, learning agile scenario-based cyber training, in-depth assessment of cyber solutions and experimentation of new cyber resiliency concepts driven by emerging technologies.

In 2020, The Government of Alberta agreed to support Mitacs programs adding approximately 1,275 new internship units annually, through an additional \$5 million investment each year for three years (total investment \$15 million). We are currently in year 2 of this agreement. At the time the agreement was signed in October 2020/21, it represented an incredible 476% increase in support.

In 2021-22, UCalgary students, graduate students and postdoctoral scholars were awarded Mitacs Accelerate internships valued at over \$16 million to the university. Accelerate interns gain valuable research and career experience in organizations who need their expertise. UCalgary postdoctoral scholars also secured \$1,664,000 in Mitacs Elevate training funds, that they will use as they lead research projects with industry and not-for profit partners. This was supported by the Alberta governments increased

financial support of Mitacs. Research placements have included improved monitoring to mitigate fugitive carbon emissions (CMC Research Institute), mobilizing the science of language and reading for tutors and parents (Calgary Reads), and Indigenous approaches to wellness: a response to the COVID-19 mental health crisis in Indigenous communities (Âsokêwin Friendship Centre).

Further, our graduate students have access to a wide range of entrepreneurship training and professional skills development offerings, equipping them to translate their research into a variety of practical applications. The rapid and effective development of the innovation ecosystem will ensure that the knowledge being generated by our students and faculty will be translated to the benefit of our society.

Following an institution-wide review aimed at improving the ability of the Alberta tech sector to access university expertise, the Office of the Vice-President (Research) created an Industry Engagement Team, whose objective is to match researchers and industry for collaborative research with impact. This team facilitates the creation of a research partnership and identifies industry-government matched-funding opportunities and guide applications for the best chance of success. Potential outcomes include job creation, accessing funding from new sources, entering the innovation pipeline, or company diversification.

### **Environmental Stewardship and Climate Leadership**

Besides the tremendous advances we are making through our energy research initiatives to reduce the environmental footprint associated with energy extraction, we are also championing new approaches and technologies to monitor environmental impacts and to create the data inventories needed to assess Alberta's contribution to curtailing greenhouse gas emissions and reducing water usage. The *Global Research Initiative in Sustainable Low Carbon Unconventional Resources (GRI)* is a major vehicle to translate lab-based technology innovations into field-deployable solutions. *One Health*, an institutional priority area, uses a transdisciplinary approach to address problems at the intersection of people, animals, and their environment.

The Energy Transition Centre (ETC) is a collaboration between the University of Calgary, Innovate Calgary, Avatar Innovations, and the energy industry. The ETC will deliver programming specific to the investment, acceleration, and commercialization of start-up companies working on energy transition. The ETC is expected to support innovative clean energy development and generate economic activity through new business opportunities and research and development, while also assisting the commercialization of technologies for industry. Over the next three years, the initiative expects to create 25 new small- and medium-sized firms while assisting an additional 25 existing firms in accelerating their technologies for the clean technology sector.

Our New Earth-Space Technologies research theme brings together geographers, scientists, and engineers to create new data gathering technologies across all spatial scales for Alberta. Whether it is cutting edge technologies for detecting methane emissions or deploying satellite technologies to assess environmental changes over time and space scales, our students and faculty are providing expertise that enables the province to show environmental leadership on the national and international stage.

Advancing Canadian Water Assets (ACWA) is energizing its project work and broadening its outreach, building on previous investments from the Provincial and Federal governments, along with ongoing investments from UCalgary and The City of Calgary. In 2022 ACWA broadened its mandate, and in turn ACWA has now stands for Advancing Canadian Water Assets, changed from Advancing Canadian Wastewater Assets. The new name reflects a holistic approach to water management that considers urban water systems part of the larger watershed. This change will allow ACWA to pursue opportunities to reduce urban water footprints and increase the sustainability of water resources. ACWA supports research and development, knowledge transfer, de-risking and piloting of leading-edge water and wastewater treatment technologies. ACWA offers service for technology developers and end users in the municipal, industrial and



commercial sectors and provides facility access to wastewater researchers. Interdisciplinary teams of researchers and technology developers confidently push the boundaries of science and technology in this world-class facility.

The provincial government is creating new research collaborations to focus on Environmental Monitoring. We are actively engaged with the Chief Scientist of Alberta charged with overseeing the province's Environmental Monitoring and Reporting Systems to co-locate one of these major research collaborations at UCalgary. The UCalgary Bow River Ecosystem Health Assessment Project (BREHAP): is a multi-phased, long-term initiative to develop an adaptive, effects-based monitoring framework for wastewater and stormwater in the Bow River basin. The project involves an interdisciplinary team of faculty, graduate, and undergraduate researchers from The University of Calgary and partner institutions (The City of Calgary, InnoTech Alberta, and universities of Alberta, Waterloo, Florida, and McMaster). There are significant partnerships with the RiverWatch Institute of Alberta, Environment and Climate Change Canada, Alberta Environment and Parks, the Bow River Trout Foundation, and the Bow River Basin Council. The project will also engage First Nations along the Bow and Elbow rivers, working collaboratively on community-based participatory approaches to research.

### **Effective Resource Management**

Our province has major opportunities to unlock its vast renewable and non-renewable energy resources while simultaneously demonstrating the best environmental stewardship as we move to a low carbon future. Our research strategy *Energy Innovations for Today and Tomorrow* directly addresses the goals of Effective Resource Management and Environmental Stewardship to reduce costs of resource development while simultaneously decreasing the environmental impacts. Our research creates new economic benefits, jobs, and opportunities to export value-added products and processes to the international market and produces approaches that lead the world in stewardship of natural resources.

The Canada First Research Excellence Fund (CFREF) award for \$75 million funds the Global Research Initiative in Sustainable Low Carbon Unconventional Resources (referred to as the GRI). From these federal funds, we hired six new faculty members (two in chemistry and four in chemical and petroleum engineering), and we support over 80 graduate students, over 40 postdoctoral scholars, and more than 50 individual projects. The GRI program has a foundational partnership with the Southern Alberta Institute of Technology (SAIT) for prototyping and assisting in the commercialization of energy technologies that significantly reduce environmental impact and includes \$6.5 million to promote and expand research collaborations with the University of Alberta. Five years into this initiative, the GRI has yielded 60 research projects, 175 inventions, 22 start-up companies, 82 new jobs created, over 325 publications, and 135 awards received by GRI members.

Our strategic research theme *Energy Innovations for Today and Tomorrow* also integrates research across our campus on transitioning to a *Low Carbon Future* that dovetails with the provincial goal of enhancing Clean Energy. Our students and faculty are advancing new technologies on energy conversion using biological and chemical systems that will reduce greenhouse gas emissions, while creating new sources of energy and new energy storage systems. Our significant research capacity in Clean Energy will help the province achieve its carbon targets identified in the Climate Leadership Plan. UCalgary researchers recently received \$500,000 from Alberta Innovates' Digital Innovation in Clean Energy (DICE) program to improve electricity grid capacity and use digital technology to help reservoir interpretation and production prediction.

UCalgary has been named one of three universities to lead the federal government's Clean Energy Hub. The hub will create a national network of energy and electricity modellers, policymakers, and other experts to guide the transformation of complex energy systems to provide evidence-based insights and made-in-

Canada solutions. Linking modellers and policymakers across Canada will help bridge the gap between data and policy, ensuring modelling activities inform the response to our most pressing energy policy questions.

*Energy Innovations for Today and Tomorrow* is currently being updated to match UCalgary capacity with current societal need and the changing Canadian and global energy landscape. This update integrates a significant focus on enhancing the transdisciplinary research elements of the research theme, which will allow experts from across disciplines to tackle major energy-related societal challenges.

At the national level, we have helped to transition Carbon Management Canada from a Network Centre of Excellence (NCE) to Carbon Management Research Institutes – a small number of national research institutes focused on reducing greenhouse gas emissions and building a low carbon economy. UCalgary hosts the first of these institutes, the Containment and Monitoring Institute (CaMI). CaMI is in southeastern Alberta, near Brooks, and is led by UCalgary researchers, but draws together academic and industrial researchers and entrepreneurs from across Canada and internationally. It is a major field site where new technologies can be explored for carbon sequestration and the efficient monitoring and auditing of injected CO<sub>2</sub>, as well as fugitive methane emissions and control. It will help the Province of Alberta deliver on its goal of being a leader in environmental stewardship for the natural resource sector. CaMI is funded by generous grants from the Government of Canada and industry, with new research funds coming from Norway, the United Kingdom, and the United States.

### **Engaged Individuals and Communities for a Healthy Alberta**

Health research conducted at our university encompasses important contributions from all relevant disciplines spanning virtually all our 14 Faculties. We pride ourselves on having excellent disciplinary strength in areas typically associated with health such as medicine, nursing, and social work. Research advances by faculty, postdoctoral scholars, and students in these areas are extremely important, and the future bodes well based on the results of stiff competition for federal research funding.

However, it is well-recognized that solutions for major health problems, issues, and implementation require inputs and knowledge translation from areas beyond the typical disciplines, and UCalgary is championing the exciting integration of evidence-based interdisciplinary work across all our campuses. Some exciting examples to highlight the breadth and depth of UCalgary health research include:

The Azrieli Accelerator launched in 2021 thanks to a \$25 million gift from the Azrieli Foundation. The Accelerator has a focus on enabling transdisciplinary research to improve the lives of people with neurodevelopmental disabilities and their families. Initial research themes include brain circuitry, microbiome influences, and interventions and care transformations. The Azrieli Accelerator represents a new model for transdisciplinary collaboration. Supplementing traditional academic organizational models, the Accelerator is designed to super-charge research and drive real-world impact by engaging the community to inform the direction and shape of research.

UCalgary researchers in Clinical Neuroscience led the largest stroke clinical trial in Canada, leading to a significant breakthrough in the treatment of acute ischemic stroke. The AcT Trial demonstrated that a safe, well-tolerated heart attack drug – Tenecteplase (TNK) – is also an effective treatment for stroke due to its ability to dissolve clots. TNK was shown to work as well as or better than the standard treatment (Alteplase, or tPA), but importantly, TNK is administered in a single dose, saving valuable time when compared to tPA, which requires infusion over the course of an hour. In addition to identifying a better way to treat acute stroke, the AcT Trial also leveraged REB Exchange, a new tool launched by UCalgary that enables more efficient and cost-effective way to conduct clinical trials across multiple locations.

Researchers at the Universities of Calgary and Alberta will work together with [Alberta Precision Labs](#) (APL) and [DynaLIFE](#) to create a province-wide diagnostics platform for medical research, including

samples, data, infrastructure, equipment and expertise. Support by Alberta Innovates' [Health Innovation Platform Partnerships \(HIPP\) program](#), the Alberta Diagnostics Ecosystem Platform for Translation (ADEPT) will establish three laboratories where researchers can collaborate with licensed and accredited medical and scientific staff to test new diagnostic technologies. The lead researchers of ADEPT have a track record of leveraging provincial investment into ground-breaking discovery: the group also recently developed a new technology to rapidly detect potentially life-threatening bloodstream infections, in a partnership between with APL and [Thermo Fisher Scientific](#). Using current technologies, it typically takes two to four days to identify infection-causing bacteria and determine which antibiotics will work. The rapid test can provide a result in under 20 hours.

The knowledge translation resulting from these collaborations affects human health, agricultural production, environmental sustainability, as well as quality of life for urban and rural communities. In short, we have managed to combine our emphasis on excellence in individual scholarship with the ability to bring together students and faculty from many disciplines to create a powerful research enterprise that is solving important problems.

Our research is yielding progressive and novel facets for urban design that will help to build healthy communities across Alberta and beyond. Newly funded SSHRC research projects lead by our scholars will address pressing social problems, including access to municipal services for individuals with disabilities, and the impact of open data in smart (wired, digital) cities.

To help keep communities healthy, UCalgary researchers responded rapidly to COVID-19, pivoting their research programs to address the unprecedented challenges of the pandemic. Across our institution, over 100 COVID-19-related projects have been funded by external funders, to a total of over \$16M. We are well-positioned to help mitigate the spread of SARS-CoV-2, while learning how we can effectively prepare for and respond to future outbreaks.

In 2020, Advancing Canadian Water Assets (ACWA)'s physical infrastructure and intellectual capital were used to help Alberta Health Services and the City of Calgary establish mechanisms to identify COVID-19 infections in the population through detection of the virus in wastewater samples. In 2022, tracking was expanded to include data of variants of concern and influenza infections. The data is shared on a website created and managed by the Centre for Health Informatics (CHI) at the Cumming School of Medicine (CSM). The initiative received funding through Alberta Health and as of 2022, geographically targeted wastewater monitoring has been adopted across Alberta to support Alberta Health's efforts to mitigate the spread of COVID-19. This program is part of the pan-Alberta wastewater monitoring partnership led by the Universities of Calgary and Alberta, in partnership with Alberta Health, Alberta Health Services, Alberta Precision Laboratories, The City of Calgary, EPCOR and 18 other municipal partners throughout Alberta.

Our Clinical, Health Services and Population Health platform strategy supports research to improve the health of Albertans via clinical research, research on health services and systems, and research on social, cultural, and environmental factors that affect the health of populations. This platform supports the knowledge translation of advances in health research from scholars across all Faculties. For example, the Participate in Research at UCalgary initiative enhances access to opportunities for Albertans to participate in clinical trials, health services research, and epidemiological studies, while increasing community awareness regarding the value of local research.

UCalgary is leading several pan-provincial initiatives to enable collaboration across Alberta institutions, designed to better enable and attract high-quality health research, positioning Alberta as a premier destination for clinical trials and health studies.

The University of Calgary and the University of Alberta launched the REB Exchange in 2021, a tool designed to enable collaboration between researchers at different institutions and to make innovative research

available to more people across Alberta. REB Exchange makes it easier for studies and trials to run in smaller centres, reduces the ethics administrative burden on local hospital teams, and benefits communities. In 2022, UCalgary started the process of bringing universities outside of Alberta onto the platform, amplifying its benefits. When trials like AcT can enrol people in cities and towns across the country, patients gain access to the latest treatments that they may not otherwise have had access to, and they contribute to the creation of new knowledge, improving health care outcomes for all Canadians.

UCalgary, the University of Alberta, and Alberta Health Services-CancerControl collaborated to launch OnCore in 2021, a clinical trial management system (CTMS). OnCore significantly enhances the clinical trial infrastructure in Alberta, allowing for the optimized management of the 1,800+ clinical trials that are being conducted in the province. OnCore reduces the administrative burden for researchers, improves budgeting and financial management, and enables central reporting of clinical trial activity. Ensuring that the OnCore is integrated with the future provincial electronic medical record system (ConnectCare) will provide greater patient safety and improve subject recruitment.

This platform strategy also enables collaboration on clinical research initiatives with Alberta Health Services. For example, the Non-invasive Neurostimulation Network is informing provincial implementation of Transcranial Magnetic Stimulation therapy for treatment-resistant depression in adults, and several Brain and Mental Health researchers lead AHS Strategic Clinical Networks to ensure clinical care of Albertans is informed by the latest research. Key initiatives also include enhanced services to UCalgary investigators through the Clinical Research Unit, Clinical Research Fund funding support for UCalgary-led clinical trials, renovations to the Heritage Medical Research Clinic, and a refreshed certification and quality assurance program serving clinical trials from across campus.

The platform strategy supports and is supported by the complementary Integrated Management Plan to Accelerate Clinical Trials (IMPACT) initiative. IMPACT is a full-service program which gives inventors and biomedical scientists access to the expertise, advice, infrastructure and opportunities needed to translate their inventions into commercial products – including the design and execution of early phase clinical trials to demonstrate efficacy and safety.

#### **INNOVATION@UCALGARY: CULTURE CHANGE TO DRIVE IMPACT**

Canadian universities play an instrumental role in developing innovation and research systems to support Canada's social, economic and cultural development. UCalgary is implementing a renewed innovation strategy, *Innovation@UCalgary* that links discovery, creativity, invention and entrepreneurship to solve local, national and global economic and social challenges. We are working with communities, government, industry and other post-secondary institutions to accelerate how we bridge the gap between discovery and innovation at our university and in our communities. The direct impacts associated with university innovation, knowledge engagement, translation and commercialization through various partnerships include job creation, venture creation, and research opportunities for faculty and technicians. Research activity also creates indirect economic impact through social and technical innovations that lead to new technologies, policy and industry sectors, and healthier societies. This recharges resources for future research and discovery. *Innovation@UCalgary* is positioning UCalgary as a leader in innovation and entrepreneurship. Research and innovation are part of the same organism, leading research universities lead the way in innovation and *Innovation@UCalgary* aims to place UCalgary in this select group of global institutions.

UCalgary's innovation strategy is guided in part by the Council for Innovation and Entrepreneurial Leadership (CIEL). CIEL members advise and advance UCalgary's innovation strategy to achieve its vision to

be the most entrepreneurial university in Canada. CIEL is composed of entrepreneurs, innovators and investors with strong ties to the local and national innovation ecosystem.

The Alberta economy is changing and diversifying. Calgary is on its way to becoming a truly entrepreneurial city. Peter Cohan, the author of *Startup Cities*, indicates there are six factors that are needed to support innovative and start-up communities: pillar companies, universities, human capital, investment capital, mentor networks and values. We possess all these traits, and we now need to continuously advocate for an innovative culture and create strategic collaborative efforts throughout and beyond the university.

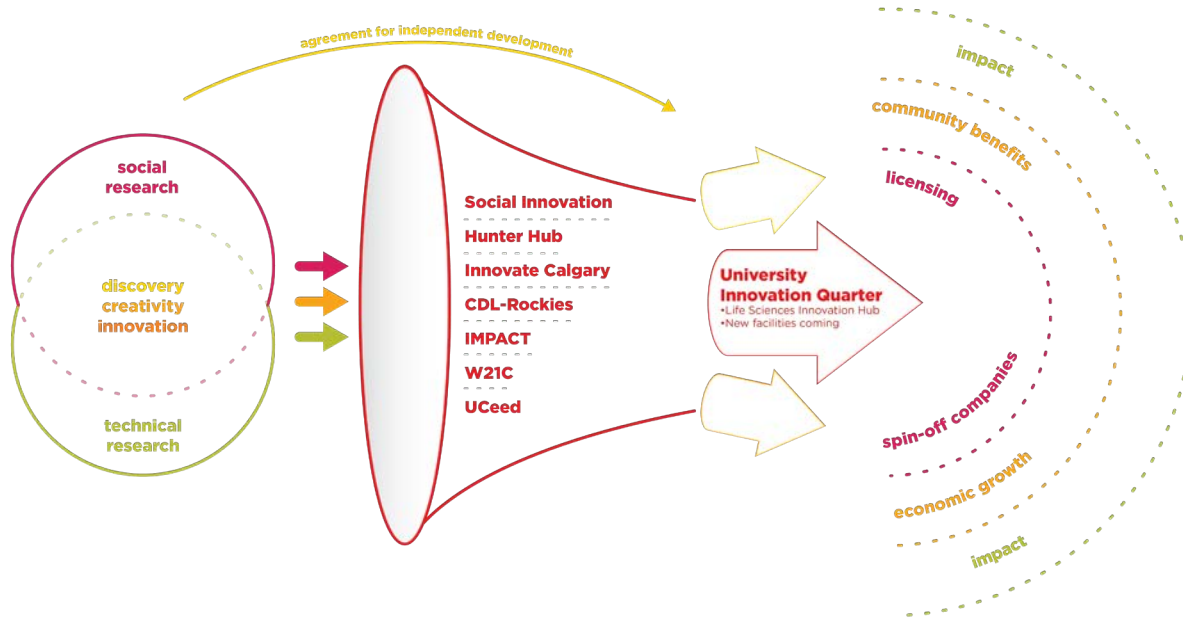
## **CULTURAL CHANGE**

UCalgary has supported innovation for several decades, but since 2019 we have prioritized innovation and impact. We have dramatically improved links to the local innovation community and focused on resourcing via major philanthropic donations. Most Faculties now have active innovation programs, and the university has deployed several programs to increase innovation and entrepreneurial activity more broadly and in step with development of its research base. The structure is in place, but to make significant increases, our university must make a cultural shift, which will be enabled through our expanding innovation infrastructure (e.g., Life Science Innovation Hub, Ward of the 21<sup>st</sup> Century) and encouraged through new programs and innovation units (e.g., Hunter Hub, CDL-Rockies, Energy Transition Centre).

We are setting goals to transform our innovation levels by 2030. To achieve this, we are building on the developments of the last decade as well as deploying a multi-path innovation model supported by the University Innovation Quarter and a wide variety of targeted support nodes and activities.

In addition to expanding innovation infrastructure, UCalgary is also working to promote our existing innovation success stories. The [now innovating] research-to-impact podcast aims to inspire researchers and community partners to take new steps toward transforming discoveries into solutions, products, and services. It provides insight into the experiences of changemakers within the innovation ecosystem, offering proof that pursuing new ventures and non-traditional pathways to impact is essential to solving contemporary issues.

Innovation does not map well on to traditional structures such as faculties, but three broad domains of activity (Life, Biological, and Health Science; Science and Engineering; Arts, Social Science and Humanities) can be defined, with most innovation happening at the intersections, including cross-cutting activities covering aspects of Business, Law, and Policy. Our experience is that technical and social innovations can happen from any of the domains – data science innovation, for example, happening in the arts faculty, and social innovations coming from science, medicine and engineering innovators.



The key components of our Innovation@UCalgary ecosystem are illustrated above and described in detail below, working from left to right in the figure:

**Disciplinary domains: Discovery, creativity, and innovation** are derived from intersections of individual, research group and Faculty interests. Faculty members lead **technical or social research** and educational programs and host the inventive and enterprising students and staff who drive our innovation enterprise. When a great idea emerges, the student or staff can pursue the path that makes the most sense to develop their idea beyond traditional structures, which leads into the innovation funnel at the core of the figure:

**The Hunter Hub for Entrepreneurial Thinking (HH):** HH is an interdisciplinary nucleus for activities that support student, postdoc and faculty innovation experiences, and expands a growing community of entrepreneurs and innovators. It is a fundamental link for our campuses that enriches the student experience and empowers innovation and entrepreneurial thinking across our institution. The Hunter Hub is the front end of the innovation funnel that will ultimately attract, support and educate thousands of future innovators and entrepreneurs. The Hunter Hub generates hundreds of venture projects and teams that move naturally into the development environment of Innovate Calgary.

In its first four years, the Hunter Hub brought Calgary-led ingenuity to the national stage, through the Hunter Hub-led \$4 million [Experience Ventures](#) program. The new program provides 2,025 paid entrepreneurial thinking placements for students at nine post-secondary institutions across the country. The Hunter Hub also transformed and expanded core programming including Launchpad, a six-month, co-curricular program, aiming to build entrepreneurial thinking skills in undergraduates and graduate students, post-docs, and researchers from every faculty.

The Hunter Hub has also helped to advance health innovation program TENET i2c, an acceleration program to transform medical research into new companies, culminating in a \$100K pitch competition.

In 2021, Hunter Hub launched the Embedded Certificate in Entrepreneurial Thinking campus wide. The Embedded Certificate in Entrepreneurial Thinking is a partnership between the Haskayne School of Business and the Hunter Hub for Entrepreneurial Thinking to provide undergraduate students from degree paths across UCalgary with an entrepreneurial thinking toolkit: the knowledge, experience, mentorship, and capstone project support to make an impact.

**Innovate Calgary (IC)** has operated as UCalgary's knowledge transfer and business incubation centre for 32 years but has been re-invigorated in the last five years to become a transfer office fit for the 21<sup>st</sup> century. IC offers approaches to flexible engagement and support of faculty and student technology assessment and commercialization. Innovate Calgary partners with the University of Calgary to offer a wide range of program and funding opportunities to help innovators learn, grow, and succeed.

Since its inception, over 3040 disclosures have been submitted resulting in 976 patents secured, and 614 revenue-bearing agreements. Examples of companies created based on UCalgary research include: LivingWorks, Circle Cardiovascular, Carbon Engineering, Carbonova, EnviCore, Trusted Positioning, Parvus Therapeutics, Epimeron (now Willow Biosciences), Fluid Biotech, and Neuraura. Innovate Calgary currently works with over 300 researchers and targets an annual growth of 20 percent.

To accomplish key programming, IC has the support of over 40 full-time professionals and over 50 expert advisors from around the world. Companies can access our expert advisors through membership (resident and non-resident) and are matched based on the company's need and level of expert experience they require. If extra support or guidance is needed, our list of preferred suppliers can support through partner rates. Our current members include companies like Ammolite BioModels, Fluid Biotech and Exergy Solutions.

In 2020, UCalgary launched **UCeed**, a pre-seed and seed funding program with over \$14M under management by Innovate Calgary. UCeed helps commercialize new technologies and innovations and accelerates UCalgary and community start-up companies through early-stage investments. UCeed currently funds ventures in the fields of child and general health, with support from the Alberta Children's Hospital Foundation and the River Fund at Calgary Foundation; social impact, with support from the United Way of Calgary and Area; and student managed investments, with support from TD Canada Trust. \$1.95 million is invested into 15 UCalgary and community-based start-ups. UCeed is the largest philanthropic venture capital fund affiliated with a Canadian university. In its first year of activity, UCeed has evaluated 130 companies, engaged 178 researchers across 46 academic units and 18 industries, and engaged 61 students with world-class learning opportunities.

Innovate Calgary has also established an Industry Liaison Office to help enable and facilitate research and innovation partnerships with industry, government, and non-governmental organizations.

**Life Science Innovation Hub (LSIH):** The Life Sciences Innovation Hub at the University of Calgary, operated by **Innovate Calgary**, is designed to help students, researchers, and entrepreneurs build promising life science-based companies. LSIH provides access to the infrastructure, equipment, expertise, and start-up support services needed to bring commercially viable products and services to market. LSIH is a 112,000 sq ft building located in the University Innovation Quarter. It offers 27,000 sq ft of wet and dry lab space, access to shared molecular biology and rapid prototyping equipment, Dedicated or shared labs, offices, and desks, and discounts on supplies through partner vendors.

LSIH also operates the Life Sciences Fellowship program, which takes early-stage start-ups with technology-driven solutions to important problems and adds funding, technology development resources, professional development training and expert support. The Life Sciences Fellowship is supported by \$3.5 million in funding from Calgary Economic Development's [Opportunity Calgary Investment Fund](#), [Ministry of Jobs, Economy and Innovation](#) and [Alberta Innovates](#). The third cohort of Life Sciences Fellows to be supported

by this program were announced in March 2021. At that time, the first two cohorts were less than one year into their program, but had already created 10 full-time equivalent jobs, secured one patent (with four additional patent applications under review), secured over \$1 million in further grant funding plus \$141,000 in investment, and generated \$575,000 in revenue.

**CDL-Rockies:** Since 2017, facilitated by Haskayne Business School, the University of Calgary hosts a franchise of the successful Creative Destruction Lab (CDL). In its first two years of operation, over 300 predominantly university grown tech ventures were assessed and 50 of them put to the CDL program for development. CDL-Rockies is a pillar in the commercialization of technology developed within universities. There are only seven CDL locations – five in Canada, one in New York, and one at Oxford, with Calgary acting as the sole host of the CDL Energy stream. UCalgary is proud to boast this innovative program made possible due to the enterprising community of supporters and mentors in Calgary. It taps into the experience of entrepreneurs who have founded, scaled, and executed high-growth ventures by creating mentorship partnerships with select start-ups. In just five years, Creative Destruction Lab – Rockies has helped participating ventures generate \$1.3 billion in equity value creation, of which \$535 million created by Alberta-based companies. CDL-Rockies has had 261 venture participants, and over 650 jobs have been created by CDL-Rockies alumni companies, with over 250 created in Alberta. Students and faculty, seeing opportunities to be mentored by leading technology developers and investors, increased their innovation activities at the University of Calgary.

Integrated Management Platform to Accelerate Clinical Trials (IMPACT): Innovation in health research requires deep connection with the health care system and ventures outside of the university. IMPACT is a unique approach to facilitate the planning, conduct and dissemination of clinical trials, helping external ventures to navigate the clinical trial and regulatory process, and minimizing common hurdles and barriers to success. In its three years of operations, IMPACT has engaged with 146 companies, supported 15 full-clinical trials and completed numerous smaller engagements (e.g., regulatory submissions, quality management consulting), and helped 2 clients achieve approval of their medical devices with Health Canada and the FDA.

In 2021-22, IMPACT generated a >3x year-over-year revenue increase from client venture billings, and signed agreements for projects with 25 different ventures: 8 from Alberta (32%), 10 from other Canadian provinces (40%), and 7 international (28%). IMPACT is the recognized clinical trial vendor for the [Creative Destruction Lab](#), and has partnerships with [McMaster Innovation Park](#) and [Applied Pharmaceutical Innovation](#). Over half of IMPACT's client ventures originate from across Canada, the United States and the United Kingdom thanks to our growing reputation. IMPACT leverages the relationship between CDL and UCalgary, and draws upon existing infrastructure and units, such as W21C.

**W21C (Ward of the 21st Century):** W21C is a research and innovation initiative co-hosted by UCalgary and Alberta Health Services. W21C serves as a research and beta test-site for exemplary hospital design, novel approaches to health care delivery, human factors research, and innovative medical technologies. With a mission to innovate, create, educate, and evolve to build new paradigms of health care delivery, W21C plays a major role in our innovation efforts in the health care sector. In the last fiscal year, W21C had 11 new prototypes for clinical evaluation, 84 active research projects, and generated \$992k in external grants and industry sponsored funding.

In 2021, W21C announced a partnership with the [Coordinated Accessible National \(CAN\) Health Network](#) to reach their shared goal of introducing more homegrown technology solutions into Canada's health-care sector, while assisting an even greater number of companies on their journeys to scale. CAN Health helps break down barriers to scaling in the health-care system and provides an environment for companies to scale to their full potential.



**University Innovation Quarter (UIQ):** In partnership with the Province of Alberta, we announced that the University Innovation Quarter (UIQ) would be developed north of the main campus. The revitalization of UIQ (formerly University Research Park) supports creation of an innovation and research cluster at the University of Calgary to help drive innovation in the Calgary region. UIQ will provide the necessary resources to incubate innovations, cultivate talent, and apply academic learnings to create beneficial solutions for our community. The University's Life Sciences Innovation Hub (LSIH) was launched on the UIQ site in 2019, supported by investments at the municipal level from the Opportunity Calgary Investment Fund and from the federal level through Western Economic Development. In short, we are helping to create productive economic growth by attracting and producing new talent, by leveraging provincial funding with external funding sources (e.g., industry, municipal, federal, and international) to create new ideas, and working with our partners to create an environment where great ideas can attract the capital investments needed for them to grow and prosper. UIQ is now being managed by University of Calgary Properties Group (UCPG). This includes moving management of the ARTC building to UCPG, and they are in the process of updating the leasing structure to reflect the post-covid reality of in-person workplaces and to provide capacity for several UCalgary innovation related initiatives.

UIQ will be a catalyst to grow employment opportunities. Over a 20-year period, it will support the creation of 6,300 direct new jobs, including 4,500 private sector jobs with the remaining comprised of technical staff for sponsored UCalgary research. Indirect employment impacts will generate an added 5,700 jobs for a total of 12,000 jobs in Calgary by 2038. This space for companies and start-ups to interact and work alongside UCalgary students and researchers will cultivate high-quality talent, bring innovation to the forefront, and result in lasting impacts for our communities. In addition to the existing Life Sciences Innovation Hub (LSIH), hubs for science/engineering/energy and social innovation are in the design phase.

**Social innovation:** UCalgary is committed to driving innovation that has social impact and value. The Social Innovation Hub operated by Innovate Calgary, connects changemakers with community-led programming, cross-sectoral networks, coaching, mentorship, and provides access to capital and space to help launch or scale innovation. The Social Innovation Initiative enables faculties to mobilize their academic experience and transdisciplinary expertise into solutions for complex social problems, by building capacity for academic social innovators.

In 2019, we established the Knowledge Engagement (KE) Team, who build and maintain meaningful partnerships for research between UCalgary and community organizations. Their goal is to support these collaborative efforts to create knowledge with impact for the benefit of the community at large. In 2021-22, the group has supported 26 funding applications resulting in \$7.97M in grant revenue from the successful applications, provided matchmaking and collaboration support to 8 community partners and 15 UCalgary researchers, and consulted with 39 groups on how to engage in KE activities.

In 2018, UCalgary became a founding member of the first Canadian Cohort of the Carnegie Classification on Community Engagement. The Carnegie Foundation Carnegie defines Community Engagement as the collaboration between institutions of higher education and their larger communities for the mutually beneficial exchange of knowledge and resources in a context of partnership and reciprocity. To this end, we will be engaged over the next two years in a process of highlighting, supporting, and evaluating the many partnerships that are essential to our social innovation and impact.

**Outputs:** UCalgary contributes to our country's global competitive advantage, driving socio-economic change and making the world a better place. Great ideas enter the Innovation@UCalgary ecosystem, and outputs emerge in the form of knowledge transfer, newly created ventures, technology licensing, direct community benefits, job creation, and economic growth.

## VIRTUOUS CYCLE

The virtuous cycle of innovation is the chain of events that reinforce themselves through a feedback loop, which we support through the Innovation@UCalgary ecosystem. It has 5 key components:

**1) Research excellence** is important beyond the university – excellence attracts top faculty and students, which in turn creates impactful programs and companies, which contribute to the economic development of our city.

**2) Innovation** is part of the broad, inclusive spectrum of research at UCalgary that links discovery, invention, applied research and impactful creation and delivery of a solution or application to society. Solutions encompass a wide variety of forms, including but not limited to commercial applications. Entrepreneurship is crucial. Technology transfer bridges the difficult transition from discovery through to deployed solutions in society. In recent years, we have dedicated much effort to stimulate the virtuous cycle.



**3) Research-intensive entrepreneurship** programs are an important new component to this system. Programs supported by the Hunter Hub for Entrepreneurial Thinking give researchers the opportunity to develop their technology or social innovation, and potentially to build a new, sustainable company.

Today the world of business is a world of ideas and innovation – and our universities are places full of ideas and innovation. Fifty years ago, 80 percent of the value of the S&P500 was accounted for by tangible assets while today only 20 percent of the value is accounted for by tangible assets. Alphabet, Apple, and Amazon are household names, but high-growth companies are starting every day – and many of these have their beginnings in a university. Calgary and UCalgary need to be leaders in this new world of business, creating **new funding models (4)** and paradigms through which we can share knowledge with our communities.

**5) Company acceleration** is the final piece in the cycle – UCalgary has built and continues to build the infrastructure and supports to enable new ventures to scale up and succeed.

The Evolve to Innovate (e2i) program is for postdocs or research associates and their PIs to get started on the pathway to translating their research into practical solutions. Participants work towards creating a research-based start up with the support of professional development courses and mentorship.

The Academic Entrepreneur in Residence (AEIR) program is accelerating innovation and nurturing venture building through a network of embedded mentors. AEIR is aimed at supporting a critical step in the innovation workflow by providing mentorship and practical support to help move emergent research ideas toward impactful solutions in our community.

**Innovation@UCalgary** will provide the framework for UCalgary to grow into a globally leading research and innovation university. We are enabling the components necessary to guide and support students, faculty, postdocs, staff and alumni through discovery, invention and venture development. To achieve this, we are:

- developing and promoting an innovation culture together with our community;
- transforming cultural models for research and teaching to enable innovation;
- developing an ethos of assessment, ambition, and continuous development;
- actively developing innovative programs for women and minorities;
- embedding innovation support functions within research teams and across the campuses;
- building on-campus innovation spaces for students, postdocs, and staff;
- organizing, resourcing, and promoting major campus-wide innovation events;
- creating and supporting student innovation groups and student/postdoc pitch competitions;

- developing a cohort of entrepreneurial role models;
- integrating UCalgary innovation ecosystem into the Alberta Rainforest;
- delivering actual solutions and jobs through leadership and cultural change;
- leveraging Government support and creating UCalgary Innovation support fellowships and programs for faculty, postdocs, and graduate students; and
- not being afraid to change our culture and processes to succeed.

#### **IDENTIFYING AND IMPLEMENTING PRIORITIES:**

In the 2012-2017 Strategy Research Plan, the University of Calgary identified and implemented six strategic research themes in which we had significant capacity for transdisciplinary research and scholarship that would solve some of society’s most demanding challenges. In our 2018-23 Research Plan, we introduced two additional themes to reflect how our expertise would best serve to solve challenges for our communities. Each of these eight themes received significant investment (~\$1 million for each theme) to mobilize, build new collaborations, and advance transformative research initiatives. These priority areas have increased research capacity, established new partnerships, and produced valuable outcomes.

In 2021 a new strategic vision, Framework for Growth was finalized and approved by the University of Calgary’s governance committees (General Faculties Council and Board of Governors). This strategy meets the changing environment within which post-secondary institutions must thrive. Framework for Growth identifies three Big Ideas: Transdisciplinary Scholarship, Deeper Community Integration, and Future-focused Program Delivery. With implementation for this Framework for Growth now beginning, exciting new initiatives, partnerships, opportunities, and outcomes will unfold.

Within the Transdisciplinary Scholarship pillar, five areas of focus (Cities and communities; Democracy and Social Change; Digital Worlds, Energy Transformation; and Health and Life) will be catalyzed to enable the university to tackle the most important of challenges, regardless of scale. Our existing eight themes will each integrate into these areas of focus, creating multiple nodes of academic and knowledge translation excellence.

#### **Alignment with ATIS**

UCalgary research is in alignment with the ATIS vision where, “Alberta is an internationally recognized technology and innovation hub that develops and attracts new talent, business and investment to grow the technology sector and diversify Alberta’s economy”. Our research enterprise is structured and prepared to fulfill the five goals outlined in ATIS. We are set up for success, and we look forward to working towards fulfilling the ATIS goals in the coming years.

**Goal 1: Increase the depth of Alberta’s technology and innovation talent pool:** We have many programs that are focused on talent development and training highly qualified personnel (HQP) in multiple areas of tech and innovation. We are working to expand Alberta’s talent pool, so our province continues to compete globally, and to strengthen industry and academic partnerships to generate the knowledge and skills for Alberta’s future workforce.

Related programs include:

- **Quantum City** training programs and professional master’s degree in quantum science and technology,
- **The Innovation Catalyst Grant**, an entrepreneurial fellowship that supports recent master’s or PhD graduates in Science, Technology, Engineering and Mathematics (STEM) disciplines. It

provides a 2-year runway for entrepreneurs to develop and commercialize innovative science-based products and services.

- **Hunter Hub and Haskayne School of Business Embedded Certificate in Entrepreneurial Thinking**, which provides undergraduate students from degree paths across UCalgary with an entrepreneurial thinking skillset
- **Hunter Hub** also offers many entrepreneurship programs to prepare the next generation of innovators, including Launchpad and Tenet i2c,
- **The Evolve to Innovate (e2i) and Research to Social Innovation (r2si)** start up programs support innovators to develop, validate, and scale impactful research through mentorship, profession development and financial support,
- **The Cumming School of Medicine Precision Health master's degree**, that offers an Innovation and Entrepreneurship specialization to train students to develop innovative patient solutions embedded in viable business models.
- **The University Innovation Quarter (UiQ)**'s mission is to be a hub of research, collaboration, ideation, incubation, and entrepreneurship. UiQ will attract new businesses to hire the HQP who emerge from UCalgary's programs, ensuring that our talent pool grows and stays in Calgary.
- Paid internships offered through **Mitacs** support collaborative research and innovation projects between industry partners and post-secondary institutions, which helps business and community partners to succeed, improves students' on-the-job skills development, and strengthens our world-class innovation ecosystem.

### **Goal 2: Increase access to private capital and public investments in Alberta's technology and**

**innovation sector:** UCalgary has programs and mechanisms in place that attract investment in UCalgary research:

- **UCeed** focuses on helping early-stage companies across the funding gap between start-up funding from grants and personal investment, and private sector buy-in.
- **Creative Destruction Lab – Rockies** is an objectives-based program for massively scalable, seed-stage, science- and technology-based companies, which connects companies with entrepreneurs, angel investors, and partners from leading venture capital firms. These participants often invest in ventures that demonstrate a track record of achieving their objectives.
- Long-term partnerships with **Calgary Economic Development and The City of Calgary** connect us with potential local, national, and international collaborators who want to work with our researchers and HQP to achieve their business innovation and growth goals.
- UCalgary announced new initiatives this year that are evidence of our track record of success in this area:
  - **Quantum City**, a strategic partnership with the Government of Alberta, and [Mphasis](#), an information technology solutions provider specializing in cloud and cognitive services,
  - The **Energy Transition Centre (ETC)** is a collaboration between the University of Calgary, Innovate Calgary, Avatar Innovations, and the energy industry. The ETC will deliver programming specific to the investment, acceleration, and commercialization of startup companies working on energy transition.

### **Goal 3: Advance a system of supports that facilitate commercialization of Alberta research and**

**innovations:** UCalgary has expanded our role in local innovation ecosystem in many ways in recent years, including creation of initiatives and investing in infrastructure and human resources that facilitate and encourage commercialization. These include:

- **Innovate Calgary (IC)**, the innovation company of the University of Calgary. From ideation to commercialization, IC offers the resources, facilities, and expert guidance researchers need to bring their innovation to market.
- The **Life Sciences Innovation Hub (LSIH)** provides access to the infrastructure, equipment, expertise, and startup support services needed to bring commercially viable products and services to market. Infrastructure includes wet and dry labs, shared molecular biology and rapid prototyping equipment, and Biosafety Level II labs.
- The **Integrated Management Platform to Accelerate Clinical Trials (IMPACT)** provides an accelerated path to health innovation market approval for less capital. The IMPACT program will help health-tech, or biomedical early or mid-stage venture conduct clinical trials and secure regulatory approvals for new health-related inventions.
- **W21C** serves as a research and beta test-site for exemplary hospital design, novel approaches to health care delivery, human factors research, and innovative medical technologies.
- **The Social Innovation Initiative** helps researchers navigate the vast innovation ecosystem to help them move their research forward, and the **Social Innovation Hub** helps early-stage social enterprise become investor ready while ensuring long-term sustainability and profit flow back for further research. The SIH is working towards translating ideas into 1000 viable start-ups in 10 years.

**Goal 4: Optimize Alberta’s technology and innovation ecosystem:** UCalgary is working to ensure our supports are responsive to the needs of innovators and entrepreneurs within our institution, and to strengthen and expand our relationships with other members of the provincial innovation ecosystem to enable greater collaboration.

Examples of this work include:

- **Innovate Calgary’s** suite of programs and funding, including:
  - **The Equipment & Research Concierge Program** connects industry researchers with hundreds of millions of dollars worth of instrumentation, services, and experimental design expertise at the University of Calgary.
  - **Digital Compass**, a virtual accelerator program for startups developing innovative digital solutions. Companies are introduced the product roadmap and marketing scale-up support that can revolutionize their digital health or social impact venture.
- **OnCore, the university’s Clinical Trials Management System (CTMS), and REB Exchange**, collaborative initiatives between the Government of Alberta, the University of Calgary, and the University of Alberta, are designed to better enable and attract high-quality health research and position Alberta as a premier destination for clinical trials and health studies.
- **UCalgary’s Innovation Ecosystem Directory** is a searchable online directory that links innovation-based activity with program leads, support services, resources, and funding opportunities across UCalgary’s vast innovation ecosystem. <https://ucalgaryinnovationdirectory.ca/>
- The **Knowledge Engagement (KE) Team** build and maintain meaningful partnerships for research between UCalgary and community organizations. The collaborative efforts that they support have the potential to feed into the innovation ecosystem.
- The **Industry Engagement Team**, whose objective is to match researchers and industry for collaborative research with impact. This team facilitates the creation of a research partnership and identifies industry-government matched-funding opportunities and guide applications for the best chance of success.

UCalgary also has long-term productive partnerships with other groups in the innovation ecosystem, including Platform Calgary and Calgary Economic Development.

**Goal 5: Enhance Alberta’s reputation as a leader in technology and innovation:** UCalgary is working to enhance our reputation nationally and internationally via several avenues. These include external communications, as well as seeking new opportunities outside of Calgary to create mutually beneficial research collaborations and opportunities.

- **External communications** include the [now innovating] podcast, participation in national Innovation Week and Global Entrepreneurship Week activities, and participation in relevant industry tradeshows including the Global Energy Show and BIO International
- **Leadership roles in areas of national priority**, including the National Cybersecurity Consortium (NCC), Cybersecurity Innovation Network (CSIN), and Clean Energy Hub
- **Ongoing collaborations with international partners** include Quantum City (Mphasis), Global Energy Research Initiative (Government of Mexico, Technion, Keuri Group), as well as our University of Calgary campus in Qatar

## 10. Regional Stewardship, Foundational Learning, Underrepresented Learners

Highlighted within this section are activities supporting foundational learners, Indigenous learners, learners with disabilities, rural learners, and learners from low-income backgrounds. Progress is also being reported towards specific initiatives that supported the creation of strong networks with community partners to enhance access and pathways for learning.

### **REACHING OUT TO UNDERREPRESENTED LEARNERS**

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#### **UNDERREPRESENTED LEARNER RECRUITMENT**

The University of Calgary is committed to ensuring that qualified students from all groups in our diverse community find an intellectual home on campus. We have turned this commitment into action, focusing our efforts related to accessibility on attracting, preparing and retaining students from underrepresented populations throughout Alberta. We recognize the need to monitor the composition of the student body to ensure diversity, but also to put in place the appropriate support services to allow the students who come to our campus to succeed. The university is investing significant resources in turning these commitments into reality. The following sections highlight key programs in place to serve underrepresented learners across Alberta.

##### **Enhanced Student Recruitment**

As we have expanded our recruitment efforts, we have paid special attention to groups and communities that, in the past, have been less likely to attend university. These include students living outside major metropolitan areas, Indigenous students, mature students, and students from families with lower incomes or who attend high schools with lower rates of participation in post-secondary education.

The University of Calgary is committed to attracting and supporting students from a variety of backgrounds into programs where they have been under-represented. This includes first generation students, newcomers to Canada, refugees and rural and remote students. Our recruitment initiatives include events to connect to groups that may have less knowledge of the opportunities for study at the University of Calgary through school and community organizations. Throughout COVID, engagements included both in-person and virtual options to maintain connection and support.

Our community engagement recruitment advisor connects directly with local community associations, cultural organizations and social support service agencies to assist newcomers and students from lower socio-economic backgrounds who want to attend UCalgary.

##### **Increased Focus on Indigenous Recruitment**

We launched our Indigenous Strategy, *ii'taa'poh'to'p*, in November 2017. This strategy commits to “establishing a welcoming, inclusive, and culturally competent campus community that respects, includes, and promotes Indigenous ways of knowing, teaching, learning, and research. In fulfilling this commitment, the university is looking at ways to improve our outreach to Indigenous learners.” We built a dedicated outreach program to attract more Indigenous students to campus. This includes an Indigenous recruitment team whose focus is to build relationships and support students in the Treaty 7 region, Metis Nation of Alberta, Region 3 and Indigenous communities across the province and establish personal connections with Indigenous students and their communities. A key recruitment initiative is our Indigenous specific Discover

UCalgary presentation and campus tour that supports students on-campus or virtually to learn about the opportunities, supports and advantages of studying at University of Calgary and waives the application fee for Indigenous learners.

In addition, the Cumming School of Medicine offers the Aboriginal Health Program (AHP) to encourage, advocate and enhance Indigenous programming, specifically recruitment, retention, community involvement as well as curricular activities.

At the graduate level, SAGE UCalgary (Supporting Aboriginal Graduate Enhancement) strives to support and nurture the recruitment, retention and completion of Indigenous graduate students. This program aims to ensure graduates students have safe spaces to share their experiences with their peers, mentors, and campus community and to develop their professional, academic, and personal skills. The group organizes events such as the Indigenous Students Writing Café designed to support Indigenous students' success with grants and awards.

#### **Underrepresented Learner Pathways**

Across the University of Calgary, there is an awareness of the importance of pathway programs and support for extensive outreach campaigns with the goal of diversifying our student population.

To increase access to underrepresented learners, UCalgary has developed pathways programs for students with non-traditional backgrounds. The Cumming School of Medicine launched a *Pathways to Medicine* program to support and mentor students from low-income families, rural areas, non-traditional backgrounds and Indigenous communities to consider a career in medicine. In the Werklund School of Education, the Community based Education program provides students from rural and remote communities as well as Indigenous learners with a pathway to enter the Bachelor of Education degree. In the Schulich School of Engineering, the Biology pathway to Engineering is designed to increase access for women and other underrepresented learners who are more likely to have taken Biology 30 in high school rather than the standard Physics 30 requirement.

To increase access for Indigenous learners, the University of Calgary, through consultation with Indigenous communities, introduced an undergraduate admission policy that connects the various admission options that are available for Indigenous students and added a holistic Indigenous admission process to support consideration of a student's cultural and/or community-based learning experiences. Acknowledging and recognizing students' experiences allows greater flexibility to consider students in alignment with pathway options that are being created with academic upgrading components to support Indigenous learners whose high schools do not offer required high school courses. The Werklund School of Education Bridging to Community-based Education program provides a pathway to enter the Bachelor of Education degree. In its first year, the Schulich school of Engineering pathways program is intended to encourage Indigenous Peoples who are interested in STEM (Science, Technology, Engineering and Math) to study Engineering through fostering an Indigenous-centered community in which students are provided with the requisite supports that promote their skill development, well-being, and success as engineering scholars. Funding from the Province of Alberta has also assisted Indigenous students in reducing financial barriers to pursuing undergraduate or graduate education.

The Indigenous Student Access Program supports about 30 Indigenous students each year in this culturally grounded, cohort-based, transition-year access program that supplies an opportunity for Indigenous students who may not meet admissions requirements to faculties, or who are looking to begin post-secondary study with enhanced transition support. The program includes three common first-year university classes, weekly peer-led academic coaching and study sessions, dedicated academic and career advising, mentorship with a senior Indigenous student, and enhanced cultural programming including access to Elders and ceremony.



The University of Calgary strives to create a pathway to higher education for all students, including students with disabilities. Student Accessibility Services works collaboratively and innovatively with the campus community to create an accessible, equitable and supportive learning and living environment that enhances each student's academic and personal development.

#### **Expanded Pathways for Students**

The University of Calgary is a partner in Alberta Education's dual-credit program, which provides an additional learner pathway to post-secondary studies for high school students, allowing them to earn high school and university credits simultaneously. The dual-credit program serves both high achieving high school students, but also underrepresented learners who may otherwise be unlikely to apply to the University of Calgary. Dual credit courses provide a supportive environment for students to take a university-level course alongside their peers and explore a learning pathway prior to graduation.

#### **Continuing Education Focus on Underrepresented Learners**

Continuing Education has partnered with UCalgary Students Union to create a Pre-pathways to Education for Indigenous Students in Southern Alberta (PEISSA) program. The PEISSA program is designed to support Indigenous students in gaining the pre-requisite courses needed for admission into a program at the University of Calgary. The program provides academic preparation courses (high school upgrading). Students are also supported culturally by providing opportunities for students to engage with an Indigenous Academic Advisor, Elders, and cultural activities. Funding for this program has been provided by *Quality Money* allocated from the Students' Union.

To address research needs within the healthcare sector, Continuing Education's collaboration with the *Patient and Community Engagement Research (PaCER)* program, within the O'Brien Institute for Public Health, explores innovative ways to engage patients and communities in healthcare, planning and research. In this program, participatory-grounded theory research methods are taught to patients and community members in remote communities, which enable them to conduct peer research with groups of patients under the guidance of a PaCER mentor. The audiences served by this program include non-traditional, Indigenous and marginalized learners.

### **STUDENT SUPPORT FOR UNDERREPRESENTED LEARNERS**

#### **Student Success Centre**

As important as attracting students from all backgrounds to our campus are, our efforts to ensure their success is our utmost priority. The Student Success Centre fosters a culture of success that enables students to realize their full potential. Learning support takes a strengths-based approach to supporting students in a variety of areas, including writing, exam preparation, and study skills to help students achieve their academic goals. Academic decision making is supported through exploratory advising. Advisors assist students in exploring the alignment of goals and values with academic programs, and support addressing informational barriers for equity deserving students who are exploring UCalgary academic programs. Academic Development Specialists take a holistic approach to working with students 1:1 and through group programming to meet their academic goals. A dedicated Academic Development Specialist role for first generation, Indigenous and Equity Deserving Students offers individual outreach and customized programming. Dedicated support for students who identify as neurodiverse includes low-sensory office hours and advising space. Neurodiversity Meet-up weekly chats and workshops are a place for students to meet their peers in a sensory-friendly setting that allows for sharing and discussions. Topics range from studying, wellness, transitioning and technology.

While the university has many supports that are offered to students who reach out for help, we also take a pro-active approach to identifying and supporting students who are academically at risk through our Thrive Priority Support Network. Thrive works by looking for drops in grades that aren't normal for each student. For new students, Thrive looks for patterns of failing grades. Using this system, advisors reach out to students who are struggling before problems overwhelm them.

The Academic Turnaround Program (ATP) provides students who are required to withdraw (RTW) for academic reasons an opportunity to continue their studies with dedicated supports. The program serves between 200 – 450 participants annually and includes students who have experienced a variety of issues that impact their academic success, such as difficulties with post-secondary transition, unforeseen life events or personal challenges. Of those participating in the program, a recent review of success rates averaged over 2014-2017 demonstrated that 57 percent of students are successful after one year, and of those 89.5 percent go on to graduate. As an important retention strategy, this program allows students who have experienced an unsuccessful first-year transition or a significant challenge later in their degree to continue to pursue their academic goals.

#### **Student Supports and Inclusive Post-secondary Education**

Student Accessibility Services facilitates an accessible learning environment for students with disabilities including temporary impairments and permanent disabilities. Students are supported to identify reasonable academic accommodations for their academic pursuits. Supports include access to an accommodated Exam Centre (one of the largest exam centres for students with disabilities in Canada), a dedicated access advisor and learning strategist. In addition, the Nat Christie Adaptive Technology Centre is available where students can be trained on, and make use of, a range of assistive and adaptive hardware and software options – and a quiet study area.

The Inclusive Post-Secondary Education (IPSE) program at the University of Calgary supports individuals who have developmental disabilities access an authentic university experience. Students are included in both the academic and social life at the University of Calgary and St Mary's University in Calgary. During the spring and summer months, IPSE supports students in building their resumes through meaningful volunteer work, competitive paid employment opportunities and personal development activities. The program is funded, in part, by the Government of Alberta.

The University of Calgary strives to be a welcoming community where all people live, learn, work, and thrive, including inclusivity for neuro-diverse people. In addition to the supports provided in the Student Success Centre, Neurodiversity Support Advising is a wellness support for students and those who are exploring their identity around neurodiversity. Any student who self-identifies as neurodiverse can meet with the Neurodiversity Support Advisor for supports and services; students are not required to have a formal diagnosis. This ensures that any student who wants support can access support. In addition, the Taylor Institute for Teaching and Learning has launched the WIL and Neurodiversity initiative, a four-year initiative funded by The Sinneave Family Foundation that is focused on systems-level change to transform accessibility and embrace universal design for learning (UDL) in WIL activities. This initiative will also work closely with industry and community leaders to transform practices for recruiting and mentoring students in work-integrated learning, with a strong focus on neurodivergent students.

#### **Ótáp ímisskaan Indigenous Youth Leadership Program**

The Ótáp ímisskaan Indigenous Youth Leadership Program offers culturally tailored leadership training to Indigenous youth aged 13 to 25 through inspiring and engaging workshops across Western Canada. Programming consists of two main streams: Educational Outreach and Leadership Training.

Both streams provide educational information and motivational content designed to inspire Indigenous youth to make informed decisions and begin developing a vision for their future. Ótáp ímisskaan's dynamic

team consists of Indigenous post-secondary students (Wayfinders). Wayfinders aim to help Indigenous youth develop leadership skills, build self-awareness that will benefit them individually and inspire positive change in their communities. One of the most significant objectives of Ótáp ímisskaan is the ongoing effort to encourage youth to pursue post-secondary education. Ultimately, the focus is on empowering and inspiring Indigenous youth to realize their potential and embrace their roles as emerging leaders of tomorrow.

#### **Writing Symbols Lodge**

The University of Calgary's Writing Symbols Lodge welcomes, respects, and supports the rich diversity of Indigenous learners, their communities, cultural traditions, and aspirations in post-secondary education. It provides a culturally appropriate environment that encourages and fosters the success of Indigenous students in their studies through academic, personal, and cultural support services and programs. Writing Symbols Lodge engages Indigenous students with program advising, registration, post-secondary sponsorship information, mentorship, employment, and personalized support and referrals. Using a holistic cultural relational model, the Tiya Dagumisariy program offers academic support services, cultural and holistic workshops, and leadership training to enhance the student experience and promote student academic achievement. Writing Symbols Lodge also offers community-based programs and cultural events that engage the campus and the greater Indigenous community.

#### **Indigenous Student Mental Health Support**

The University of Calgary provides dedicated mental health support for Indigenous students through an Indigenous Student Support Advisor and an Indigenous Counsellor. These roles assist students with their wellness needs and while both roles are part of the mental health team within Student Wellness Services, they are embedded within Writing Symbols Lodge.

#### **Neurodiversity Support Advising**

The University of Calgary recruited a dedicated neurodiversity support advisor for students who are exploring their identity around neurodiversity. The advisor assists students with their successful transition into the University of Calgary, helps with improvements to well-being, navigating systems on and off campus, and helping to increase confidence in academic ability. Additionally, advice and guidance are provided to faculty and staff on supporting neurodiverse students in their studies.

#### **Q Centre**

The Students' Union's Centre for Sexual & Gender Diversity (Q Centre) is a safe, comfortable and inviting space for the LGBTQA+ community at the University of Calgary. Featuring a library and peer support services, the program coordinators and volunteers plan events and direct clients to relevant resources. The Q Centre's Queer Mentoring initiative strives to provide sexual and gender minority undergraduate students with opportunities to empower themselves by pairing them with established, queer-identified role models.

#### **Faith and Spirituality**

The University of Calgary embraces the growing diversity in its faculty, students and staff and is committed to creating a safe, inclusive, healthy and respectful campus culture — one that values diversity and the dignity of every person and is grounded in equity and inclusivity. The Faith & Spirituality Centre seeks to cultivate a pluralistic community by encouraging cultural and religious literacy, community building, and social change as an integral part of the student experience. It continues to expand faith-based supports with chaplains representing Muslim (Shi'a, Sunni, Ahmadiyya), Buddhist (Pureland) Christian (Anglican, Baptist, Catholic, Christian Reformed, Lutheran, Orthodox, Pentecostal, United/Presbyterian), Hindu, Jewish (Chabad), Sikh and Baha'i faiths.

The Vitruvian Space provides dedicated space to our community for religious observance and spiritual well-being. Ablution stations are integrated in the space as well as specialized venting mechanisms to allow for sacred practices such as smudging. The Kaleidoscope Project, a week-long immersive program, promotes spiritual and religious growth and learning among students through exploring religious and cultural diversity in Calgary. A related continuing education course entitled “Building Religious & Cultural Inclusion in the Workplace” was developed and has begun to attract a diverse group of campus professionals and members of the Calgary community. A new program for students, Intersections in Diversity, focuses on intersectionality and anti-oppression by immersion in the history and experiences of marginalized groups in Canada through meaningful dialogue and collaboration.

## **COMMUNITY INITIATIVES AND REGIONAL STEWARDSHIP**

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### **ACADEMIC PROGRAMS IN THE COMMUNITY AND REGION**

The University of Calgary has always been a strong Campus Alberta partner and we pride ourselves on strong relationships with our post-secondary colleagues across the province. We provide some illustrative examples of various types of partnerships below.

UCalgary’s Faculty of Social Work has served students across the province for many years. From campuses in Calgary, Edmonton and Lethbridge, the Faculty has been a leader through delivery of its innovative Learning Circles program on-site in rural and remote Alberta communities. Increasingly, through its online Virtual Learning Circles program, learners remain in their home communities to complete their degree. In partnership with the University of Alberta, the University of Calgary has a reciprocal space exchange on each campus. The Faculty of Social Work offers its program in Edmonton on the University of Alberta campus, while our Downtown Campus in Calgary hosts the University of Alberta’s programs in Rehabilitation Medicine. This allows students in the two cities access to specialized programs in their home communities and eliminates potential duplication while also reducing costs to both institutions.

UCalgary’s Energy Engineering program and Geomatics Engineering pathway are designed as a pathway for graduates of approved technology diploma programs such as programs offered at SAIT. It provides a seamless transition to a University of Calgary engineering degree that can be completed with an additional two years of study. Graduates hold both an engineering technology diploma and an engineering degree. The Energy Engineering pathway addresses the energy industry’s need for engineering graduates who bring a unique mix of technology and engineering science skills and knowledge to the workplace.

The Werklund School of Education offers a Bachelor of Education stream designed for Albertans in rural and remote areas. This innovative program allows students to remain in their communities for most of the program while taking advantage of strong transfer agreements that the University of Calgary has and continues to grow with its Campus Alberta partners. The program allows students outside major urban centers to obtain an education degree and greatly increases the odds that these students will become the teachers of tomorrow in rural and remote communities across Alberta, including an access pathway for Indigenous learners.

The Faculty of Nursing, with support from the Ministry of Advanced Education, piloted both a rural and Indigenous routes in communities across Alberta to ensure learners across Alberta have access to a Nursing degree program in their community, keeping students and graduates in their home communities and preparing students for the realities of rural nursing. Alberta Health and Alberta Health Services (AHS) have partnered with UCalgary to offer a rural community Bachelor of Nursing program in Wainwright. In Wainwright, UCalgary provides the delivery of the program, while AHS provides classroom space and hands-on training opportunities at Wainwright Health Centre. In the Portage College region, UCalgary

provides the delivery of the program, with labs in-person at a Portage College campus. These routes are in addition to the strong partnership already in place with Medicine Hat College. The Bachelor of Nursing program at Medicine Hat College is a four-year partnership program offered entirely on site at Medicine Hat College, allowing students in Medicine Hat and surrounding areas access to a baccalaureate nursing program without having to relocate. By opening the doors to degree programs across Alberta, the University of Calgary is serving labour market needs across the province by increasing the likelihood of learners remaining in their home communities following graduation.

The Bachelor of Communication and Media Studies is offered in partnership with SAIT Polytechnic and supports students who want the broad interdisciplinary base of knowledge provided by a university degree combined with practical skills in public relations, journalism, new media production, or radio, television, and broadcast news provided by a professional diploma program at SAIT or another approved program.

The University of Calgary is a champion of co-curricular service learning involving mutually beneficial collaborations between students and community organizations to meet real, defined community needs. The *ucalgarycares* Indigenous Leadership and Engagement program engages both Indigenous and non-Indigenous students in learning that focuses on social justice, reciprocity, Indigenous ways of knowing, and cross-cultural awareness.

## **CONTINUING EDUCATION AND COMMUNITY NEEDS**

University of Calgary Continuing Education is actively engaged in serving and collaborating with internal and external communities to address mutually identified learning needs to address the upskilling and reskilling needs of Albertans. This evolving work includes innovative partnerships with industry, key professional associations and internal faculties and units to develop and deliver unique programming for individuals and organizations.

To support the development of digital talent, University of Calgary Continuing Education partnered with Microsoft Canada to provide two free technology training initiatives this past year. The first training initiative sponsored by Microsoft and RBC offered 35 course sections of Microsoft AI Fundamentals certificate taught by UCalgary Continuing Education to over 5000 attendees for three months. The second training initiative sponsored by Microsoft, built on the AI Fundamentals Course as a prerequisite, was taught by UCalgary Continuing Education, offering 4 course sections of their more advanced role-based career certifications, Microsoft Azure AI Solution (AI-102) and Data Science Solution on Azure (DP-100) to over 460 attendees in just one month. This partnership continues to grow with additional programming currently being co-developed.

University of Calgary Continuing Education collaborated with Calgary Economic Development, SAIT, Bow Valley College, ICTC Canada, and Riipen to expand the successful EDGE UP (Energy to Digital Growth Education and Upskilling Project). Funded by Future Skills Centre, EDGE UP 2.0 is a short-term skills development program for mid-career Oil and Gas professionals who have been displaced from the Oil and Gas sector in Calgary. The project aims to help former employees of the Oil and Gas sector gain employment in Calgary's high-demand, high-growth digital technology opportunities across all industries.

Continuing Education houses a well-developed Corporate Training team. Corporate Training partners with businesses, not-for-profit organizations, and municipal, provincial and federal government agencies to identify organizational learning needs, design learning plans and deliver training – tailored for their unique organizational requirements. The Corporate Training team held 126 corporate training workshops serving over 2000 local business employees.

Continuing Education offers members of the public the opportunity to connect and engage with University of Calgary in a variety of programming areas, including professional certification and technology programs and personal interest and wellness programs. Continuing Education collaborated with 23 professional associations, resulting in 15,402 enrolments in professional certification and technical courses. Individuals also have access to researchers through OneDay@UCalgary. In these unique and affordable one-day classes, University of Calgary academics bring compelling and timely topics to life. Sample topics include A (Gentle) Introduction to Mental Illness, Politics in the City: Everything you Need to Know About Calgary Politics, Leonardo da Vinci: A Man of Mystery and Textiles: The Relationship Between Humans, Animals and Bugs. In 2021-22, individual course enrolments in our continuing education programs totaled 30,496

## **KNOWLEDGE ENGAGEMENT**

The University of Calgary emphasizes community connection and enhanced learner outcomes through our research activities. As a research-intensive university, the University of Calgary is committed to knowledge engagement, a term used to encompass knowledge translation, knowledge mobilization and community-engaged scholarship. Knowledge engagement is a process that brings together diverse groups—post-secondary institutions, corporations, community organizations, health and social service providers, academics, policy and decision makers, government and the public—to address mutually identified problems. It is a dynamic and reciprocal process that creates, synthesizes and applies knowledge and evidence to benefit our communities. Our extensive research community collaborates with local, provincial, national, and global stakeholders, enabling knowledge exchange and the co-creation of new knowledge. Some university-community knowledge engagement projects are designed to enable students to contribute to developing solutions to identified problems in the community and thus enhance their experience as students and future leaders in our communities.

For example, the Urban Alliance is a community-based research platform and research partnership between the City of Calgary and the University of Calgary. This partnership has led to the establishment of research chairs, attracted significant new research funding, and facilitated more than 120 research projects involving over 100 researchers, students and practitioners.

A long-standing research partnership is ACWA (Advancing Canadian Wastewater Assets) that involves scientists and students working side-by-side with municipal wastewater operators to solve environmental water problems within a full-scale municipal wastewater treatment plant. With 3.8 kilometers of naturalized streams, scientific experts in ecology, biology, toxicology, microbiology, process engineering, medicine and public health – along with municipalities and industrial partners – are working to ensure clean and affordable drinking water for the planet.

makeCalgary is a community-based research platform led by the School of Architecture, Planning and Landscape. Each academic year, makeCalgary identifies a research challenge for collaborative exploration to design elements of a resilient, healthy, vibrant, and equitable city. This initiative provides our students with practical, hands-on experience dealing with real community issues and provides valuable resources and support to the community.

The University's Knowledge Engagement Implementation Committee (KEIC) has put forward a set of concrete recommendations that will support current knowledge engagement initiatives, inspire future initiatives and provide the University of Calgary with strategies for coordinating knowledge engagement work across campus and in our communities. More specifically, the recommended actions aim to increase opportunities for networking and collaboration among researchers, students and members of the community and provide supports for identifying problems, prioritizing them, assessing solutions, articulating the results in ways that ensure that they can affect change in the communities we serve. KEIC

recommendations also support priority aims of developing ways to measure the impact of knowledge engagement and enhancing recognition of knowledge engagement work. KEIC sees value in communicating to the University and the broader community how knowledge engagement work enhances the academic enterprise. Ultimately, knowledge engagement is aimed at creating impact – one of the central value propositions that guide our current academic and research plans.

## **WORK INTEGRATED LEARNING OPPORTUNITIES**

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### **COMMUNITY PARTNERSHIPS**

Universities help build and support the environment that leads to socio-economic and cultural development. Our community engagement plan includes five key objectives: position the University of Calgary as a city builder through strategic partnerships with other community anchor institutions; position the university as a thought leader in the community by sharing and translating knowledge while enabling public discourse; amplify University of Calgary community engagement activities and celebrate their impact; lead and support service activities across the campus; and develop the University of Calgary as a center of excellence for community engagement.

The university actively engages with community anchor organizations, including cultural and civic partners like Calgary Economic Development (CED), Calgary Stampede, Calgary Pride and Calgary Public Library (CPL). We also actively engage with our neighbours through the South Shaganappi Area Strategic Planning Group (SSASPG), a committee of communities surrounding both the university's Main Campus and Foothills Medical Campus. Our faculties and other units also lead a tremendous amount of community engagement activity with key partners.

The University of Calgary collaborates with partners on key community events and initiatives. For example, our relationship with the Calgary Stampede has matured into a mutually beneficial partnership in recent years. In addition to hosting Stampede events on campus and participating in Stampede events in the community, our animal science specialists at the Faculty of Veterinary Medicine provide critical advice and innovative research to support advanced animal care practices at the Stampede. Our historians and experts in the Faculty of Arts have literally written a book on the Calgary Stampede. They offer an interdisciplinary course on the culture of the Calgary Stampede. Together with the Calgary Stampede, the university hosts the award-winning Campfire Chats on National Indigenous Peoples Day, featuring, dancing, drumming and storytelling from community leaders and Traditional Knowledge Keepers from the Treaty 7 region of southern Alberta.

Libraries and Cultural Resources (LCR) has a longstanding tradition of making our library and archival collections open to the community for research and study as well as collaborating with community organizations to share archival collections. Recently, the University and the Glenbow Museum announced the creation of the *Glenbow Western Research Centre* (GWRC) and the move of the Glenbow library and archives collections to LCR. This initiative not only aligns Glenbow's collections with teaching, learning and research at the university but it means that the Glenbow collections will continue to flourish and grow over time and that students, researchers, and the entire community will have improved access to these important collections.

In addition, LCR collaborates with The Military Museums (TMM), by providing library and archive services as well as rotating art exhibits in the *Founders Gallery* to complement the archives, galleries and activities at the TMM. The University of Calgary Press engages the Calgary community when it publishes scholarly monographs and edited collections, as well as works of original poetry and fiction. Because the Press is a leading Open Access publisher, it has more than 100 titles available for free download by the community.

We are a Connector level partner of CED's Team Calgary, a corporate partnership program that engages Calgary's visionary thought leaders to help the city build on its energy and shape tomorrow's Calgary. In addition to senior leadership engagement with CED, the university was actively engaged in the development of CED's strategy titled *Calgary in the New Economy*. CED has also invested in the relationship with the university and is a key player on community-wide initiatives. Their growing support facilitates the university's strategic engagement with Calgary's business and civic leaders.

Community partnerships are a key element embedded into many of academic programs. The programs and opportunities within faculties are numerous, for example, in our Haskayne School of Business, students enrolled in MGST 715 – Strategic Business Analysis undertake projects for small and large businesses, start-ups, not-for-profit, government and other organizations as part of a field experience. In the Faculty of Law, students are given the opportunity to practice their legal skills for the benefit of the community. Through a partnership with Innovate Calgary, free legal services are provided to entrepreneurs. The Faculty of Law also has a public interest law clinic, a Student Legal Assistance clinic, a Taxpayer Assistance Program and an environmental law clinical program where experiential learning opportunities supplement what is happening in the classroom.

Our students are also actively involved in service projects in the community, some of which involve both research and help for those in need. The Scholars Academy has a very active Cohort Service Project that gives each member the chance to be part of a community-based project. Recent collaborations include work with the Kids Cancer Care Foundation, Calgary Reads, and the Office of Sustainability. The Graduate College, with its 60 Graduate Scholars, has engaged in outreach activities with several community organizations, working with youth in the Syrian refugee community to give them a connection to the University, and engaging with Beakerhead, a community organization that promotes creativity and science. They also reached out to the community to host conversations about a range of issues, including the merits of an Olympic bid, the impact of screens on children's development, and low carbon futures. These conversations included almost 2,000 community members.

The University of Calgary supports community agencies like the United Way of Calgary and Area – raising \$431,245 for the 2021 United Way campaign. Since 2011, the university community has raised \$6.4 million for the United Way. The benefit of this investment is that every dollar stays in the local area, providing funds for programs that have profound impact on people's lives.

University of Calgary Senators are connectors between the university and our community in part through initiatives such as Lecture of a Lifetime and Chancellor's Club that highlight our faculty, researchers and students to the community. We also have an active connection to our community through our network of over 180,000 alumni. One of our unique advantages is that approximately two-thirds of our alumni live and work in the Calgary area. Lifelong learners, seekers of new knowledge and innovation, and thought leaders in their respective disciplines, they have become meaningful contributors and active citizens, locally and globally. We continue to strengthen our connection to this important part of our community to achieve our vision and create mutual benefit. We are growing and maintaining an active alumni network and establishing a stronger and more recognizable alumni profile to build our community together.

The University of Calgary has been building its presence in the community over the past years, making it easier for members of the public and interest groups to connect, to experience and learn about the broad spectrum of initiatives and events that the University of Calgary has to offer.

The downtown campus offers meeting and conference space and attracts corporate and business leaders as well as providing governmental and post-secondary venues. The School of Public Policy is in the downtown campus, as is the Haskayne School of Business executive MBA program, and our alumni engagement team.



The University of Calgary's newly established City Building Design Lab (CB Design Lab) is in the former downtown Central Library Building. CB Design Lab is a first-of-its-kind-in-Canada research initiative that employs entrepreneurial and design thinking to help redefine the future of city building. CB Design Lab brings together major players within the construction industry (consultants, contractors, owners, developers, municipal and provincial government, and civil society) to work with academic researchers and students to develop practical innovations in planning, design, construction, and operational management that will make cities more resilient, equitable, vibrant, prosperous, and healthy.

In 2017, the University of Calgary's Haskayne School of Business became a new site for the Creative Destruction Lab (CDL), called the CDL-Rockies. The CDL is a unique milestone-based mentoring and financing program for science-based companies that helps commercialize early-stage technology ventures. In 2018, a new CDL-Rockies cohort was launched focusing on start-ups in areas such as energy, infrastructure, digital oil and gas, power generation, bioenergy and energy efficiency. By 2019, 16 graduates in the Prime and Energy streams raised \$23 million for their companies. Additionally, new corporate partners such as Canadian Natural Resources Limited and Suncor came on board in November 2019 as the next cohort of ventures began their journey through the program.

Over the next years, we will become increasingly connected to industry and non-profit partners with our focus on work-integrated learning. Work-integrated learning is the process through which students come to learn from experiences in educational and practice settings. It includes the kinds of curriculum and pedagogical practices that can assist, provide, and effectively integrate learning experiences in both settings. Our goal is that by 2024-25, 100 percent of University of Calgary students will graduate with two experiential experiences. This goal will require increased connectivity with our community partners.

## **MEASURING IMPACT**

The University of Calgary is committed to maximizing, evaluating and measuring its community impact. Since 2014, Community Engagement has used an evaluation matrix based on the REAP (Reciprocity, Externalities, Access and Partnership) self-assessment model founded at University of Bradford in England. The model was extensively studied, and it is based on four key principles of community engagement activity:

- Principle of reciprocity: There is a two-way flow of knowledge, information and benefits between the university and its partners in community engagement activities;
- Principle of externalities: There are benefits created by community engagement activities that extend beyond benefits created specifically for the partners. These contribute to building social trust and networks that both contribute to building a learning and knowledge-based society and create social and cultural value for broader society;
- Principle of access: Community partners have a right to use university facilities and resources, as opposed to receiving a one-off provision of goods or services; and
- Principle of partnership: Partnerships deepen and develop through the extended reciprocity and improved access. They are an output and outcome of CE activities, which should eventually also become key inputs to improving and enhancing those activities.

These principles provided a foundation for a decision and evaluation matrix that reflects the University of Calgary's strategic focus on community engagement. The matrix incorporates a series of qualitative metrics to assess community engagement activities against our plans and strategic priorities. Each qualitative impact indicator is assessed on a scale of one to five, where one represents low impact, three is moderate impact, and five is high impact. A weighted average formula calculates a total score that indicates measurable impact for each community engagement activity. This measure is complemented with

quantitative metrics such as attendance and social media impact to derive a broad assessment of the impact of our community engagement activities. The matrix serves as both a decision making and evaluation tool to identify and measure community engagement activities.

#### **NATIONAL AND INTERNATIONAL NETWORKS**

The University of Calgary is a founding member of Community First: Impacts of Community Engagement (CFICE) and Community-Campus Engage Canada (CCEC), emerging national networks and communities of practice focused on strengthening Canadian communities by increasing the capacity, infrastructure and impact of equitable community-campus partnerships of all types, including student experiential learning, community-engaged research, and social innovation.

UCalgary is also a founding member of the Carnegie Community Engagement Classification Canadian Pilot Cohort. The Carnegie Foundation's Classification for Community Engagement is an elective classification and has been the leading framework for institutional assessment and recognition of community engagement in US higher education for the past 13 years. Carnegie defines Community Engagement as the collaboration between institutions of higher education and their larger communities (local, regional/state, national, global) for the mutually beneficial exchange of knowledge and resources in a context of partnership and reciprocity. The goals of community engagement are built on this definition; they include strong partnerships between post-secondary institutions and the public and private sectors to enrich scholarship, research, and creative activity; enhance curriculum, teaching, and learning; prepare educated, engaged citizens; strengthen democratic values and civic responsibility; address critical societal issues; and contribute to the public good.

The elective classification involves data collection and documentation of important aspects of institutional mission, identity and commitments in the areas of community engaged scholarship and learning and requires substantial effort invested by participating institutions. A Canadian Pilot Cohort has been convened to explore the Classification and consider how it might support community engagement in the Canadian context. Like other founding members of this cohort, the University of Calgary is committed to co-creating and sustaining our campus as a hub for our communities—contributing to educational achievement, community engagement, and economic activity. Our institution sees value in strengthening inter-organizational relationships and participating in a learning community of like-minded institutions to share successful practices and approaches to civic and community engagement and in implementing institution-wide measurements and evaluation methods of community engagement.

## 11. Transnational Education

This section reports programs delivered by the University of Calgary in offshore locations. The requirement to prepare this report is outlined in the Government of Alberta’s [Transnational Education Guidelines](#). Described within these guidelines is the requirement that UCalgary identify ministry-approved programs delivered in countries other than Canada. To be included, these programs must require students to be involved the delivery of credit courses leading to an Alberta credential or to joint/dual credentials with international partners. Relevant data for this report was obtained from the provincial Learner and Enrolment Reporting System (LERS).

At the University of Calgary, we offer credit programs in offshore locations as part of our international strategy. This activity promotes capacity building, fosters mobility and the international experience of students and staff, generates revenue, extends educational access, and extends our research collaborations. Our off-shore program activity is also aligned with the key priority areas of [Alberta’s International Education Strategy](#), which are global talent attraction, smart and sustainable growth, and international skills needed to succeed. Off-shore activity also encourages collaborations as a means of promoting Alberta economic and social development and international co-operation. Shown in the following table is a summary of our transnational education activity in 2021-22 followed by a brief description of these programs.

Table 6 – 2021-22 transnational education

Name of Program	Type of Credential	Program Mode of Delivery	Name of Partner Institution	Country	Students Participants (2021-22)	Number of Graduates / Completers
International Energy Lawyer’s Program	JD	In person; International Campus	University of Houston	United States	1	2
Qatar Nursing Program	Bachelor and Master of Nursing	In person; International Campus	State of Qatar	Qatar	499	54
Public Health	PhD	In person; International Campus	Catholic University of Health and Allied Sciences	Tanzania	11 PhD	-
Global Research Initiative in Energy	Various	In person; International Campus	Various (see narrative)	China Mexico Middle East	Various	-

### International Energy Lawyer’s Program (IELP) partnership

Established in 2012, the IELP is a joint Juris Doctor (JD) program with the University of Houston that allows students to earn both Canadian and American law degrees in four years. Upon program completion, students may apply for admission to the bar in both Canada and the US, and, with skills and knowledge in energy law, are highly employable across North America. In addition to the regular degree studies, the IELP is structured to facilitate internships in the energy industry.

### Qatar Nursing program

In 2007, the University of Calgary entered into an agreement with the State of Qatar to establish a nursing school in Qatar (UCQ). In January 2018, the university and the State renewed the agreement for five more years. UCQ offers both Bachelor of Nursing and Master of Nursing degrees with students coming

predominantly from the Gulf Region. The agreement also allows students from the Calgary campus to undertake a practicum in Doha. This agreement is completely funded by the State of Qatar. Over the next four years, given the impact of the global oil and gas crisis and the COVID-19 pandemic, we anticipate that the enrolment in our Qatar programs will remain between 450-550 students.

#### **Public Health – Mwanza, Tanzania**

The Cumming School of Medicine has collaborated with the Catholic University of Health and Allied Sciences (CUHAS) to create and deliver a Master of Public Health degree in Mwanza, Tanzania. This work is one component of a multifaceted partnership that includes research activities, medical electives and research field training for University of Calgary students. An innovative PhD training program will provide an opportunity for graduates to enroll at the University of Calgary with research focused on issues of importance in Tanzania. To date, the University of Calgary has had seven PhD students from CUHAS pursue studies at our institution. The goal is to build joint University of Calgary and Tanzanian research teams and to strengthen the global health research capacity in both institutions.

#### **Global Research Initiative in Energy**

The University of Calgary is leading a Global Research Initiative (GRI) for unconventional oil and gas as part of our Energy Research Strategy. The GRI initiative aimed to establish three world-leading research and education sites in China, Mexico, and the Middle East in partnership with governments, industry and educational institutions. The first GRI Site was established in Beijing, China in October 2014 through a partnership with a major Chinese oil and gas company – the Kerui Group. Working with the training arm of Kerui – the Victor Institute of Petroleum Training – the University of Calgary is offering training programs related to energy and the environment. In collaboration with several Mexican universities and research institutes, the University of Calgary is working on 21 projects that will aid energy reforms in Mexico. The University of Calgary has also secured a partnership with Technion – the Israel Institute for Technology – to leverage the University of Calgary’s world-class capacity in chemistry and chemical engineering. Supported in part by the Canada First Research Excellence Fund, the University of Calgary and Technion facilitated technical workshops and interactions among researchers, created opportunities for co-supervision of graduate students and postdoctoral fellows, and established a visiting program for scholars to work together on joint projects.

## 12. Appendices

### **AUDITED FINANCIAL STATEMENTS**

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# **UNIVERSITY OF CALGARY**

## **Consolidated Financial Statements**

For the Year Ended  
March 31, 2022

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## STATEMENT OF MANAGEMENT RESPONSIBILITY

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The consolidated financial statements of the University of Calgary ("the University") have been prepared by management in accordance with Canadian public sector accounting standards as described in note 2 to the consolidated financial statements. The consolidated financial statements present fairly the financial position of the University as at March 31, 2022 and the results of its operations, remeasurement gains and losses, changes in net financial assets and cash flows for the year then ended.

In fulfilling its responsibilities and recognizing the limits inherent in all systems, management has developed and maintains a system of internal control designed to provide reasonable assurance that University's assets are safeguarded from loss and that the accounting records are a reliable basis for the preparation of the consolidated financial statements.

The Board of Governors is responsible for reviewing and approving the consolidated financial statements, and overseeing management's performance of its financial reporting responsibilities.

The Board of Governors carries out its responsibility for review of the consolidated financial statements principally through its Audit Committee. With the exception of the President, all members of the Audit Committee are not employees of the University. The Audit Committee meets with management and the external auditors and internal auditors to discuss the results of audit examinations and financial reporting matters. The external and internal auditors have full access to the Audit Committee, with and without the presence of management.

These consolidated financial statements have been reported on by the Auditor General of Alberta, the auditor appointed under the *Post-secondary Learning Act*. The Independent Auditor's Report outlines the scope of the audit and provides the audit opinion on the fairness of presentation of the information in the consolidated financial statements.

[Original signed by Ed McCauley]  
President and Vice-Chancellor

[Original signed by Ron Kim]  
Vice-President Finance and Chief Financial Officer



## Independent Auditor's Report

To the Board of Governors of the University of Calgary

### **Report on the Consolidated Financial Statements**

#### **Opinion**

I have audited the consolidated financial statements of the University of Calgary (the Group), which comprise the consolidated statement of financial position as at March 31, 2022, and the consolidated statements of operations, remeasurement gains and losses, change in net financial assets, and cash flow for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In my opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at March 31, 2022, and the results of its operations, its remeasurement gains and losses, its changes in net financial assets, and its cash flows for the year then ended in accordance with Canadian public sector accounting standards.

#### **Basis for opinion**

I conducted my audit in accordance with Canadian generally accepted auditing standards. My responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Consolidated Financial Statements* section of my report. I am independent of the Group in accordance with the ethical requirements that are relevant to my audit of the consolidated financial statements in Canada, and I have fulfilled my other ethical responsibilities in accordance with these requirements. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

#### **Other information**

Management is responsible for the other information. The other information comprises the information included in the *Annual Report*, but does not include the consolidated financial statements and my auditor's report thereon. The *Annual Report* is expected to be made available to me after the date of this auditor's report.

My opinion on the consolidated financial statements does not cover the other information and I do not express any form of assurance conclusion thereon.

In connection with my audit of the consolidated financial statements, my responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or my knowledge obtained in the audit, or otherwise appears to be materially misstated.

If, based on the work I will perform on this other information, I conclude that there is a material misstatement of this other information, I am required to communicate the matter to those charged with governance.

## **Responsibilities of management and those charged with governance for the consolidated financial statements**

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with Canadian public sector accounting standards, and for such internal control as management determines is necessary to enable the preparation of the consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless an intention exists to liquidate or to cease operations, or there is no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Group's financial reporting process.

## **Auditor's responsibilities for the audit of the consolidated financial statements**

My objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, I exercise professional judgment and maintain professional skepticism throughout the audit. I also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. I am responsible for the direction, supervision and performance of the group audit. I remain solely responsible for my audit opinion.

I communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

[Original signed by W. Doug Wylie FCPA, FCMA, ICD.D]  
Auditor General

May 27, 2022  
Edmonton, Alberta

**CONSOLIDATED STATEMENT OF FINANCIAL POSITION**  
**AS AT MARCH 31, 2022**  
(in thousands)



	2022	2021
<b>Financial assets excluding portfolio investments restricted for endowments</b>		
Cash	\$ 247,779	\$ 252,955
Portfolio investments - non-endowment (Note 3)	933,080	927,068
Accounts receivable	118,262	104,627
Inventories held for sale	6,053	6,359
Investment in government business enterprise (Note 5)	(3,715)	(4,688)
	<b>\$ 1,301,459</b>	<b>\$ 1,286,321</b>
<b>Liabilities</b>		
Accounts payable and accrued liabilities	\$ 183,440	\$ 202,471
Employee future benefit liabilities (Note 7)	107,820	108,941
Debt (Note 8)	159,539	148,026
Deferred revenue (Note 9)	744,362	681,591
	<b>\$ 1,195,161</b>	<b>\$ 1,141,029</b>
<b>Net financial assets excluding portfolio investments restricted for endowments</b>	<b>\$ 106,298</b>	<b>\$ 145,292</b>
Portfolio investments - restricted for endowments (Note 3)	\$ 1,162,862	\$ 1,119,998
<b>Net financial assets</b>	<b>\$ 1,269,160</b>	<b>\$ 1,265,290</b>
<b>Non-financial assets</b>		
Prepaid expenses	\$ 16,025	\$ 14,921
Tangible capital assets (Note 6)	2,142,820	2,104,718
	<b>\$ 2,158,845</b>	<b>\$ 2,119,639</b>
<b>Net assets before spent deferred capital contributions</b>	<b>\$ 3,428,005</b>	<b>\$ 3,384,929</b>
Spent deferred capital contributions (Note 10)	\$ 1,446,574	\$ 1,446,920
<b>Net assets (Note 11)</b>	<b>\$ 1,981,431</b>	<b>\$ 1,938,009</b>
<b>Net assets is comprised of:</b>		
Accumulated surplus	\$ 1,764,351	\$ 1,701,513
Accumulated remeasurement gains	217,080	236,496
	<b>\$ 1,981,431</b>	<b>\$ 1,938,009</b>

Contingent assets and contractual rights (Note 12 and 14)

Contingent liabilities and contractual obligations (Note 13 and 15)

**Approved by the Board of Governors:**

[Original signed by Geeta Sankappanavar]  
Chair, Board of Governors

[Original signed by Elaine Wong]  
Chair, Audit Committee

The accompanying notes are an integral part of these consolidated financial statements.

**CONSOLIDATED STATEMENT OF OPERATIONS**  
**YEAR ENDED MARCH 31, 2022**  
(in thousands)



	2022 Budget (Note 16)	2022	2021
<b>Revenue</b>			
Government of Alberta grants (Note 21)	\$ 594,959	\$ 609,275	\$ 627,917
Federal and other government grants (Note 21)	194,124	200,020	194,316
Sales of services and products	85,537	109,808	76,636
Student tuition and fees	300,952	300,964	269,638
Donations and other grants	155,370	175,241	147,778
Investment income (Note 17)	68,021	72,818	81,424
Investment income (loss) from government business enterprise (Note 5)	-	973	(4,516)
	<b>\$ 1,398,963</b>	<b>\$ 1,469,099</b>	<b>\$ 1,393,193</b>
<b>Expense</b>			
Academic costs and institutional support	\$ 883,459	\$ 843,333	\$ 829,563
Research	352,960	427,457	404,738
Special purpose and trust	70,067	68,232	70,109
Facilities operations and maintenance	64,746	70,865	68,932
Ancillary services	27,731	32,928	29,926
	<b>\$ 1,398,963</b>	<b>\$ 1,442,815</b>	<b>\$ 1,403,268</b>
<b>Annual operating surplus (deficit)</b>	<b>\$ -</b>	<b>\$ 26,284</b>	<b>\$ (10,075)</b>
<b>Endowment contributions and capitalized investment income</b>			
Endowment contributions		8,987	15,431
Endowment capitalized investment income (Note 17)		27,567	-
		<b>\$ 36,554</b>	<b>\$ 15,431</b>
<b>Annual surplus</b>		<b>\$ 62,838</b>	<b>\$ 5,356</b>
<b>Accumulated surplus, beginning of year</b>		<b>1,701,513</b>	1,696,157
<b>Accumulated surplus, end of year (Note 11)</b>		<b>\$ 1,764,351</b>	<b>\$ 1,701,513</b>

The accompanying notes are an integral part of these consolidated financial statements.

**CONSOLIDATED STATEMENT OF CHANGE IN NET FINANCIAL ASSETS**  
**YEAR ENDED MARCH 31, 2022**  
(in thousands)



	2022 Budget (Note 16)	2022	2021
Annual surplus	\$ -	\$ 62,838	\$ 5,356
Acquisition of tangible capital assets	(222,023)	(192,220)	(160,451)
Proceeds from sale of tangible capital assets	-	75	90
Amortization of tangible capital assets	162,382	154,117	147,727
Gain on disposal of tangible capital assets	-	(74)	(74)
Increase in prepaid expenses		(1,104)	(673)
Decrease spent deferred capital contributions		(346)	(3,518)
(Decrease) increase in accumulated remeasurement gains		(19,416)	214,725
<b>Increase in net financial assets</b>	<b>\$ 3,870</b>	<b>\$ 3,870</b>	<b>\$ 203,182</b>
<b>Net financial assets, beginning of year</b>	<b>\$ 1,265,290</b>	<b>\$ 1,265,290</b>	<b>\$ 1,062,108</b>
<b>Net financial assets, end of year</b>	<b>\$ 1,269,160</b>	<b>\$ 1,269,160</b>	<b>\$ 1,265,290</b>

The accompanying notes are an integral part of these consolidated financial statements.

**CONSOLIDATED STATEMENT OF REMEASUREMENT GAINS AND LOSSES**  
**YEAR ENDED MARCH 31, 2022**  
(in thousands)



	2022	2021
<b>Accumulated remeasurement gains, beginning of year</b>	\$ 236,496	\$ 21,771
Unrealized gains (losses) attributable to:		
Foreign exchange	1,204	(397)
Quoted in active market financial instruments		
Portfolio investments - non-endowments	2,557	(328)
Portfolio investments - restricted for endowments	439	1,265
Designated fair value financial instruments		
Portfolio investments - non-endowments	(35,853)	31,912
Portfolio investments - restricted for endowments	24,034	206,684
Utility price hedges	2,213	1,353
Amounts reclassified to consolidated statement of operations:		
Foreign exchange	397	302
Quoted in active market financial instruments		
Portfolio investments - non-endowments	-	-
Portfolio investments - restricted for endowments	(220)	(47)
Designated fair value financial instruments		
Portfolio investments - non-endowments	4,903	(8,060)
Portfolio investments - restricted for endowments	(17,943)	(17,959)
Utility price hedges	(1,147)	-
Change in accumulated remeasurement gains	\$ (19,416)	\$ 214,725
<b>Accumulated remeasurement gains, end of year</b> (Note 11)	\$ 217,080	\$ 236,496
<b>Accumulated remeasurement gains (losses) is comprised of:</b>		
Foreign exchange	\$ 1,204	\$ (397)
Portfolio investments - non-endowments	(7,999)	20,394
Portfolio investments - restricted for endowments	221,456	215,146
Utility price hedges	2,419	1,353
	\$ 217,080	\$ 236,496

The accompanying notes are an integral part of these consolidated financial statements.

**CONSOLIDATED STATEMENT OF CASH FLOW**  
**FOR THE YEAR ENDED MARCH 31, 2022**  
(in thousands)



	2022	2021
<b>Operating transactions</b>		
Annual surplus	\$ 62,838	\$ 5,356
Add (deduct) non-cash items:		
Amortization of tangible capital assets	154,117	147,727
Gain on sale of portfolio investments	(23,067)	(17,960)
Gain on sale of tangible capital assets	(74)	(74)
Capital gifts in-kind received	(7)	(20)
Expended capital contributions recognized as revenue	(96,708)	(95,052)
(Increase) decrease in investment in government business enterprises	(973)	4,516
(Decrease) increase in employee future benefit liabilities	(1,121)	8,540
<b>Change in non-cash items</b>	<b>\$ 32,167</b>	<b>\$ 47,677</b>
(Increase) decrease in accounts receivable, less change in utility price hedges	(12,569)	232
Increase in prepaid expenses	(1,104)	(673)
Decrease in inventories held for sale	306	228
(Decrease) increase in accounts payable and accrued liabilities	(19,031)	4,326
Increase in deferred revenue	62,771	111,932
<b>Cash provided by operating transactions</b>	<b>\$ 125,378</b>	<b>\$ 169,078</b>
<b>Capital transactions</b>		
Acquisition of tangible capital assets less gift in-kind	\$ (189,725)	\$ (158,194)
Proceeds on sale of tangible capital assets	75	90
<b>Cash applied to capital transactions</b>	<b>\$ (189,650)</b>	<b>\$ (158,104)</b>
<b>Investing transactions</b>		
Purchases of portfolio investments	\$ (60,206)	\$ (128,638)
Proceeds on sale of portfolio investments	13,915	159,135
<b>Cash (applied to) provided by investing transactions</b>	<b>\$ (46,291)</b>	<b>\$ 30,497</b>
<b>Financing transactions</b>		
Debt - repayment	\$ (6,370)	\$ (6,082)
Debt - new financing	17,883	70
Increase in spent deferred capital, less expended capital contributions recognized as revenue, less in-kind donations	93,874	89,297
<b>Cash provided by financing transactions</b>	<b>\$ 105,387</b>	<b>\$ 83,285</b>
<b>(Decrease) increase in cash</b>	<b>\$ (5,176)</b>	<b>\$ 124,756</b>
<b>Cash, beginning of year</b>	<b>\$ 252,955</b>	<b>\$ 128,199</b>
<b>Cash, end of year</b>	<b>\$ 247,779</b>	<b>\$ 252,955</b>

The accompanying notes are an integral part of these consolidated financial statements.



**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
FOR THE YEAR ENDED MARCH 31, 2022  
(in thousands)**



**1. Authority and purpose**

The Governors of the University of Calgary is a corporation that manages and operates the University of Calgary (“the University”) under the *Post-secondary Learning Act* (Alberta). All members of the Board of Governors are appointed by either the Lieutenant Governor in Council or the Minister of Advanced Education, with the exception of the Chancellor and President, who are *ex officio* members. Under the *Post-secondary Learning Act*, the University is a comprehensive academic and research university offering undergraduate and graduate degree programs as well as a full range of continuing education programs and activities. The University is a registered charity, and under section 149 of the *Income Tax Act* (Canada), is exempt from the payment of income tax. This tax exemption does not extend to its wholly-owned subsidiaries, University Technologies Group, University of Calgary Properties Group Ltd., University District Trust, and University Innovation Quarter Trust.

**2. Summary of significant accounting policies and reporting practices**

**(a) General – Canadian Public Sector Accounting Standards and use of estimates**

These consolidated financial statements have been prepared in accordance with Canadian Public Sector Accounting Standards (“PSAS”).

The measurement of certain assets and liabilities, revenues and expenses is contingent upon future events; therefore, the preparation of these consolidated financial statements requires the use of estimates, which may vary from actual results. Management uses judgment to determine such estimates. Amortization of tangible capital assets, recognition of deferred revenue related to restricted grants and donations, determining the fair value of in-kind donations, and employee future benefit liabilities are the most significant items based on estimates. In management’s opinion, the resulting estimates are within reasonable limits of materiality and are in accordance with the significant accounting policies summarized below. These significant accounting policies are presented to assist the reader in evaluating these consolidated financial statements and, together with the following notes, should be considered an integral part of the consolidated financial statements.

**(b) Valuation of financial assets and liabilities**

The University’s financial assets and liabilities are measured as follows:

<b>Financial statement component</b>	<b>Measurement</b>
Cash	Cost
Portfolio investments	Fair value
Inventories held for sale	Lower of cost or net realizable value
Accounts receivable	Lower of cost or net recoverable value
Utility price hedge	Fair value
Accounts payable and accrued liabilities	Cost
Debt	Amortized cost

Unrealized gains and losses from changes in the fair value of financial assets and liabilities are recognized in the consolidated statement of remeasurement gains and losses. When the restricted nature of a financial instrument and any related changes in fair value create a liability, unrealized gains and losses are recognized as deferred revenue.

All financial assets are tested annually for impairment. When financial assets are impaired, impairment losses are recorded in the consolidated statement of operations. A write-down of a portfolio investment to reflect a loss in value that is other than temporary is not reversed for a subsequent increase in value.

For financial assets and liabilities measured using amortized cost, the effective interest rate method is used to determine interest revenue or expense. Transaction costs are a component of cost for financial instruments measured using cost or amortized cost. Transaction costs are expensed for financial instruments measured at fair value. Investment management fees are expensed as incurred. The purchase and sale of portfolio investments are accounted for using trade-date accounting.

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**2. Summary of significant accounting policies and reporting practices (Continued)**

**(b) Valuation of financial assets and liabilities (Continued)**

The University does not use foreign currency contracts or any other type of derivative financial instruments for trading or speculative purposes. The University uses utility price hedges to reduce exposure to fluctuations in utility prices. Utility price hedges are initially recognized at fair value on inception and are subsequently measured at fair value. Fair value is calculated by comparing the contracted hedge prices to the wholesale forward market for comparative time periods.

Management evaluates contractual obligations for the existence of embedded derivatives and elects to either designate the entire contract for fair value measurement or separately measure the value of the derivative component when characteristics of the derivative are not closely related to the economic characteristics and risks of the contract itself. Contracts to buy or sell non-financial items for the University's normal purchase, sale or usage requirements are not recognized as financial assets or liabilities. The University does not have any embedded derivatives.

**(c) Revenue recognition**

All revenue is reported on the accrual basis of accounting. Cash received for which goods or services have not been provided is recognized as deferred revenue.

**Government grants, non-government grants and donations**

Government transfers are referred to as government grants.

Restricted grants and donations are recognized as deferred revenue if the terms for use, or the terms along with the University's actions and communications as to the use, create a liability. These grants and donations are recognized as revenue as the terms are met. If the grants and donations are used to acquire or construct tangible capital assets, revenue will be recognized over the useful life of the tangible capital asset.

Government grants without terms for the use of the grant are recognized as revenue when the University is eligible to receive the funds. Unrestricted non-government grants and donations are recognized as revenue in the year received or in the year the funds are committed to the University if the amount can be reasonably estimated and collection is reasonably assured.

In-kind donations of services, materials, and tangible capital assets are recognized at fair value when such value can reasonably be determined. Transfers of tangible capital assets from related parties are recorded at the carrying value.

**Grants and donations related to land**

Grants and donations for the purchase of land are recognized as deferred revenue when received and recognized as revenue when the land is purchased. An in-kind grant or donation of land is recognized as revenue at the fair value of the land when a fair value can be reasonably determined. When the fair value cannot reasonably be determined, the in-kind grant or donation is recorded at nominal value.

**Investment income**

Investment income includes dividends, interest income, and realized gains or losses on the sale of portfolio investments. Unrealized gains and losses on investments from unrestricted grants, unrestricted donations, and endowments are recognized in the accumulated remeasurement gains and losses until settlement. Once realized, these gains and losses are recognized as revenue or expense in the consolidated statement of operations. Investment income from restricted grants and donations is recognized as deferred revenue when the terms for use create a liability, and is recognized as revenue in the consolidated statement of operations when the terms of the grants or donations are met.

Realized investment income allocated to endowment balances for the preservation of endowment capital purchasing power is recognized in the statement of operations as a component of endowment contributions and capitalized investment income.

2. Summary of significant accounting policies and reporting practices (Continued)

(c) Revenue recognition (Continued)

**Endowment contributions**

Endowment contributions consist of externally restricted donations received by the University and internal allocations by the University's Board of Governors, the principal of which is required to be maintained intact in perpetuity.

Investment income earned on endowments must be used in accordance with the various purposes established by the donors or the Board of Governors. Benefactors as well as University's policy stipulate that the economic value of the endowments must be protected by limiting the amount of income that may be expended and reinvesting unexpended income.

Under the *Post-secondary Learning Act*, the University has the authority to alter the terms and conditions of endowments to enable:

- income earned by the endowment to be withheld from distribution to avoid fluctuations in the amounts distributed and generally to regulate the distribution of income earned by the endowment.
- encroachment on the capital of the endowment to avoid fluctuations in the amounts distributed and generally to regulate the distribution of income earned by the endowment if, in the opinion of the Board of Governors, the encroachment benefits the University and does not impair the long-term value of the fund.

In any year, if the investment income earned on endowments is insufficient to fund the spending allocation, the spending allocation is funded from the cumulative capitalized investment income. However, for individual endowment funds without sufficient cumulative capitalized income, endowment principal is used in that year. This amount is expected to be recovered by future investment income.

Endowment contributions and associated investment income allocated for the preservation of endowment capital purchasing power are recognized in the Consolidated Statement of Operations in the period in which they are received.

(d) Inventories held for sale

Inventories held for sale is valued at the lower of cost and expected net realizable value and is determined using the weighted average method.

(e) Tangible capital assets

Tangible capital assets are recorded at cost, which include amounts that are directly related to the acquisition, design, construction, development, improvement or betterment of the asset, and costs associated with asset retirement obligations. Cost includes overhead directly attributable to construction and development, as well as interest costs that are directly attributable to the acquisition or construction of the asset. Work-in-progress, which includes facilities and improvement projects and development of information systems, is not amortized until after the project is complete and the asset is in service. Assets or disposal groups that are classified as held-for-sale are measured at the lower of carrying amount and fair value less costs to sell.

Leases of tangible capital assets which transfer substantially all the benefits and risks of ownership are accounted for as leased tangible capital assets. Capital lease liabilities are recognized at the present value of the future minimum lease payments at the inception of the lease, excluding executor costs. The discount rate used to determine the present value of the lease payments is the lower of the University's rate for incremental borrowing or the interest rate implicit in the lease.

The cost, less residual value, of the tangible capital assets, excluding land, is amortized on a straight line basis over their estimated useful lives as follows:

Buildings	20-40 years
Furnishings, equipment and systems	3-10 years
Learning resources	10 years

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**2. Summary of significant accounting policies and reporting practices (Continued)**

**(e) Tangible capital assets (Continued)**

Tangible capital asset write-downs are recorded when conditions indicate they no longer contribute to the University's ability to provide services, or when the value of future economic benefits associated with the capital assets are less than their net book value. The net write-downs are recognized as expense in the consolidated statement of operations. Intangible assets, works of art, historical treasures and collections are expensed when acquired and not recognized as tangible capital assets because a reasonable estimate of the future benefits associated with such property cannot be made.

**(f) Foreign currency translation**

Transaction amounts denominated in foreign currencies are translated into their Canadian dollar equivalents at exchange rates prevailing at the transaction dates. Carrying values of monetary assets and liabilities and non-monetary items included in the fair value category reflect the exchange rates at the consolidated statement of financial position date. Unrealized foreign exchange gains and losses are recognized in the consolidated statement of remeasurement gains and losses.

In the period of settlement, foreign exchange gains and losses are reclassified to the consolidated statement of operations, and the cumulative amount of remeasurement gains and losses is reversed in the consolidated statement of remeasurement gains and losses.

**(g) Employee future benefits**

**Pension**

The University participates with other employers in the Universities Academic Pension Plan (UAPP) and the Public Service Pension Plan (PSPP). These pension plans are multi-employer defined benefit pension plans that provide pensions for the University's participating employees based on years of service and earnings.

Pension expense for the UAPP is actuarially determined using the projected benefit method prorated on service and is allocated to each participant based on their respective percentage of pensionable earnings. Actuarial gains or losses on the accrued benefit obligation are amortized over the expected average remaining service life.

The University does not have sufficient plan information on the PSPP to follow the standards for defined benefit accounting, and therefore follows the standards for defined contribution accounting. Accordingly, pension expense recorded for the PSPP is comprised of employer contributions to the plan that are required for its employees during the year, which are calculated based on actuarially predetermined amounts that are expected to provide the plan's future benefits.

**Long-term disability (LTD)**

The cost of providing non-vesting and non-accumulating employee future benefits for compensated absences under the University's long-term disability plans is charged to expense in full when the event occurs which obligates the University to provide the benefits. The cost of these benefits is actuarially determined using the accumulated benefit method, a market interest rate and administration's best estimate of the retirement ages of employees, expected health care costs and the period of employee disability. Actuarial gains or losses on the accrued benefit obligation are amortized over the average expected period the benefits will be paid.

**Supplementary retirement plan (SRP)**

The expense for the defined benefit SRP is actuarially determined using the projected benefit method prorated on service. Actuarial gains or losses on the accrued benefit obligation are amortized over the expected service lifetime for each plan participant.

**2. Summary of significant accounting policies and reporting practices (Continued)**

**(h) Investment in government nonprofit organization, other government organization, and partnerships**

The consolidated financial statements reflect the assets, liabilities, revenues, and expenses of organizations which are controlled by the University. The following organizations are consolidated in these financial statements. Inter-organizational transactions, balances and activities have been eliminated upon consolidation.

- Arctic Institute of North America, a nonprofit organization controlled by the University, operates under the authority of the Act of the Federal Parliament (910 George VI, Chapter 45) to initiate, encourage and support northern research and to advance the study of arctic conditions.
- University Technologies Group, a group of entities operating to facilitate the transfer of intellectual property from the University to private business, thereby commercializing the scientific innovations of University researchers.
- University of Calgary Properties Group Ltd. ("UCPG"), is the sole trustee of University District Trust ("UDT") and University Innovation Quarter Trust ("UIQT").
- University Innovation Quarter Trust ("UIQT"), a trust created to operate, manage, and develop University Innovation Quarter lands (previously named University Research Park) to support an innovation ecosystem on behalf of the University.

Proportionate consolidation is used to record the University's share of Western Canadian Universities Marine Sciences Society ("WCUMSS") (20% interest), a partnership with five other universities to provide research infrastructure in the marine sciences for its member universities and the worldwide scientific community. All partnership inter-entity accounts and transactions between WCUMSS and the University are eliminated upon consolidation. This partnership is not material to the University's consolidated financial statements; therefore, separate condensed financial information is not presented.

During the fiscal year ended March 31, 2022, the Tri-University Meson Facility ("TRIUMF"), of which the University had a 7.14% interest, ceased being a partnership and incorporated as a not-for-profit organization. The University does not control nor have shared control over the newly created not-for-profit organization TRIUMF Inc. and its financial results are not included in these consolidated financial statements.

**(i) Investment in government business enterprise**

Government business enterprises, owned or controlled by the University but not dependent on the University for their continuing operations, are included in the consolidated financial statements using the modified equity method. Under the modified equity method, the accounting policies of the GBE are not adjusted to conform to those of the University. Thus, the University's investment in the entity is recorded at acquisition cost and is increased for the proportionate share of post acquisition earnings and decreased by post acquisition losses and distributions received. The University's wholly-owned entity accounted for by the modified equity basis is University District Trust ("UDT").

**(j) Funds and reserves**

Certain amounts, as approved by the Board of Governors, are set aside in accumulated surplus for future operating and capital purposes. Transfers to / from funds and reserves are an adjustment to the respective fund when approved.

**(k) Liability for Contaminated Sites**

Contaminated sites are a result of contamination of a chemical, organic or radioactive material or live organism that exceeds an environmental standard, being introduced into soil, water or sediment. It does not include airborne contaminants. The University recognizes a liability for remediation of contaminated sites when the following criteria have been met:

- an environmental standard exists;
- there is evidence that contamination exceeds an environmental standard;
- the University is directly responsible or accepts responsibility for the contamination;
- it is expected that future economic benefits will be given up; and,
- a reasonable estimate of the amount can be made.

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**2. Summary of significant accounting policies and reporting practices (Continued)**

**(k) Liability for Contaminated Sites (Continued)**

A liability for a contaminated site may arise from operations that are either considered in productive use or no longer in productive use when environmental standards are exceeded. It will also arise when an unexpected event occurs resulting in contamination that exceeds and environmental standards.

When an environmental standard does not exist or contamination does not exceed an environmental standard, a liability for remediation of a site is recognized by the University when the following criteria have been met:

- the University has a duty or responsibility to others, leaving little or no discretion to avoid the obligation;
- the duty or responsibility to others entails settlement by future transfer or use of assets, or a provision of services at a specified or determinable date, or on demand; and,
- the transaction or events obligating the University have already occurred.

**(l) Expense by Function**

The University uses the following function categories on its consolidated statement of operations:

**Academic costs and institutional support**

Academic costs and institutional support includes expenses relating to activities directly and indirectly supporting innovative learning, programming, and teaching as well as administration and governance functions of the University.

**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.

**Special purpose and trust**

Special purpose and trust is comprised of expenses relating to externally restricted funding for non-research related activities including scholarships and community service.

**Facilities operations and maintenance**

Facilities operations and maintenance function includes centralized management and maintenance of grounds and facilities, and buildings. Examples include utilities, facilities administration, building maintenance, custodial services, landscaping and grounds keeping, and major repairs and renovations.

**Ancillary services**

Ancillary expenses relate to secondary services available to students, faculty, and staff. Services include on campus residence, food services, university bookstores, Hotel Alma, parking, and conference services.

**(m) Future changes in accounting standards**

In August 2018, the Public Sector Accounting Board (PSAB) issued PS 3280 Asset retirement obligations. This accounting standard has been deferred by PSAB, and is effective for fiscal years starting on or after April 1, 2022. Asset retirement obligations provides guidance on how to account for and report a liability for retirement of a tangible capital asset.

In November 2018, PSAB issued PS 3400 Revenue. This accounting standard has been deferred by PSAB, and is effective for fiscal years starting on or after April 1, 2023. Revenue provides guidance on how to account for and report on revenue, specifically addressing revenue arising from exchange transactions and unilateral transactions.

In November 2020, PSAB issued PSG-8 Purchased intangibles. This accounting guideline is effective for fiscal years starting on or after April 1, 2023. Purchased intangibles provides guidance on how to recognize intangibles as non-financial assets.

Management has not yet adopted these standards, and is currently assessing the impact on the consolidated financial statements.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
FOR THE YEAR ENDED MARCH 31, 2022  
(in thousands)**



**3. Portfolio investments**

	2022	2021
Portfolio investments - non-endowment	\$ 933,080	\$ 927,068
Portfolio investments - restricted for endowments	1,162,862	1,119,998
	<b>\$ 2,095,942</b>	<b>\$ 2,047,066</b>

The composition of portfolio investments measured at fair value is as follows:

	2022			
	Level 1	Level 2	Level 3	Total
<b>Bonds</b>				
Canadian government and corporate	\$ -	\$ 556,109	\$ -	\$ 556,109
Foreign government and corporate	-	24,420	-	24,420
Pooled investments funds	-	108,833	-	108,833
<b>Equities</b>				
Canadian equities	9,007	-	-	9,007
Foreign equities	2,780	-	-	2,780
Pooled investments funds	-	951,694	-	951,694
<b>Other</b>				
Cash and money market funds	4,961	-	-	4,961
Pooled canadian mortgages	-	305,968	-	305,968
Pooled hedge funds	-	80,530	-	80,530
Private equity	-	-	27,891	27,891
Infrastructure	-	-	23,749	23,749
	<b>\$ 16,748</b>	<b>\$ 2,027,554</b>	<b>\$ 51,640</b>	<b>\$ 2,095,942</b>

	2021			
	Level 1	Level 2	Level 3	Total
<b>Bonds</b>				
Canadian government and corporate	\$ -	\$ 545,367	\$ -	\$ 545,367
Foreign government and corporate	-	17,421	-	17,421
Pooled investments funds	-	99,284	-	99,284
<b>Equities</b>				
Canadian equities	2,988	-	-	2,988
Foreign equities	2,635	-	-	2,635
Pooled investments funds	-	937,751	-	937,751
<b>Other</b>				
Cash and money market funds	39,598	-	-	39,598
Guaranteed investment certificate (GICs)	-	3,096	-	3,096
Pooled canadian mortgages	-	306,493	-	306,493
Pooled hedge funds	-	70,353	-	70,353
Private equity	-	-	10,020	10,020
Infrastructure	-	-	12,060	12,060
	<b>\$ 45,221</b>	<b>\$ 1,979,765</b>	<b>\$ 22,080</b>	<b>\$ 2,047,066</b>

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
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**3. Portfolio investments (Continued)**

The above tables provide an analysis of financial instruments that are measured subsequent to initial recognition at fair value, grouped into levels 1 to 3 based on the degree to which the fair value is observable:

Level 1 fair value measurements are those derived from quoted prices (unadjusted) in active markets for identical assets.

Level 2 fair value measurements are those derived from inputs other than quoted prices included within Level 1 that are observable for the assets, either directly (i.e. as prices) or indirectly (i.e. derived from prices).

Level 3 fair value measurements are those derived from valuation techniques that include inputs for the assets that are not based on observable market data (unobservable inputs).

The following table provides reconciliation of the changes in fair value of Level 3 investments:

		2022		2021
Balance, beginning of year	\$	22,080	\$	3,302
Unrealized gains		6,954		2,536
Purchases		22,606		16,242
Balance, end of year	\$	51,640	\$	22,080

**4. Financial risk management**

**Market price risk**

The University is exposed to market price risk, the risk that the value of a financial instrument will fluctuate as a result of changes in market prices, whether those changes are caused by factors specific to the individual security, its issuer or general market factors affecting all securities. To manage this risk, the University has established an investment policy with a target asset mix that is diversified by asset class with individual issuer limits and is designed to achieve a long-term rate of return with an acceptable level of risk.

The following details the University's portfolio sensitivity to a 11.1% increase or decrease in the market prices. The sensitivity rate is determined using the historical annualized standard deviation for the portfolio investments over a four year period. At March 31, 2022, if market prices had a 11.1% (2021 - 10.5%) increase or decrease with all other variables held constant, the increase or decrease in accumulated remeasurement gains and losses, unrestricted net assets, and endowment net assets for the year would have totalled \$232,001 (2021 - \$211,267).

The University's management of market price risk has not changed from the prior year.

**Foreign currency risk**

Foreign currency risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates. The University is exposed to foreign currency risk on investments that are denominated in foreign currencies.

The impact of a change in value of foreign currency portfolio investments is as follows:

		Fair Value		2.5% decrease		1.0% decrease		1.0% increase		2.5% increase
U.S. and International	\$	727,190	\$	709,010	\$	719,918	\$	734,462	\$	745,370

The University has a contract with the Qatari government to operate a campus in Qatar. Expenses incurred are recovered from the government of Qatar and claims are adjusted to reflect currency fluctuations, thus reducing exchange risk exposure to the University.



**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
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**4. Financial risk management (Continued)**

**Credit risk**

The University is exposed to credit risk on investments arising from the potential failure of a counterparty, debtor or issuer to honour its contractual obligations. To manage this risk, the University only invests in investment grade issuers as guided by the University's Investment policy. The credit risk from accounts receivable is relatively low as the majority of balances are due from government agencies and corporate sponsors. Credit risk from tuition is managed through restricted enrolment activities for students with delinquent balances and maintaining standard collection procedures. Given the nature of the University's accounts receivable balances, and current economic outlook, management has assessed the impact to credit risk as low.

The credit rating for Canadian government and corporate bonds held is as follows:

<b>Credit Rating</b>	<b>2022</b>	<b>2021</b>
AAA	37.37 %	32.71 %
AA	17.69 %	28.73 %
A	31.52 %	24.10 %
BBB	13.42 %	14.46 %
	<b>100.00 %</b>	<b>100.00 %</b>

**Liquidity risk**

Liquidity risk is the risk that the University will encounter difficulty in meeting obligations associated with its financial liabilities. The University maintains a line of credit designed to ensure availability of funds to meet current and forecasted financial requirements as cost effectively as possible. The University believes, based on its assessment of future cash flows, it will have access to sufficient capital through internally generated cash flows, external sources and the undrawn short-term line of credit to meet current spending forecasts. At March 31, 2022, the University has committed borrowing facilities of \$18,750 (2021 - \$18,750), none of which has been drawn.

**Interest rate risk**

Interest rate risk is the risk that future cash flows or fair values will fluctuate due to the volatility of market interest rates. The University is exposed to this risk on its interest bearing assets and bonds. Bonds are affected indirectly as they are subject to fluctuations in market values. Bonds are currently invested at the shorter end of the yield curve to reduce market value volatility. Interest risk on the University's debt is managed through fixed-rate agreements with the Department of Treasury Board and Finance as described in Note 8. If interest rates increased by 1% and all other variables are held constant, the potential loss in fair value on bonds and mortgage funds to the University would be \$31,793 (2021 - \$30,778).

The terms to maturity of interest-bearing securities held by the University are as follows:

<b>Asset class</b>	<b>&lt; 1 year</b>	<b>1 - 5 years</b>	<b>&gt; 5 years</b>	<b>Average effective market yield</b>
Money market funds	100.00 %	-	-	0.62 %
Government and corporate bonds	8.07 %	76.02 %	15.91 %	2.77 %
Canadian mortgage fund	17.47 %	55.70 %	26.83 %	4.03 %

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
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(in thousands)**



**5. Investment in government business enterprise**

The University District Trust ("UDT") subleases land to developers for the commercialization of residential and commercial development. The University is the beneficiary of UDT and will receive distributions from the trust once leases are in place with developers and net proceeds are available.

The following table provides condensed supplementary financial information for the investment in government business enterprise owned by the University.

**Statement of Financial Position:**

	December 31, 2021	December 31, 2020
<b>Assets</b>		
Cash	\$ 2,267	\$ 1,062
Accounts receivable	1,492	817
Deposit	222	228
Prepaid expenses	243	243
Investments	118,402	82,308
Capital assets	1,682	2,006
Development costs	46,359	42,986
	<b>\$ 170,667</b>	<b>\$ 129,650</b>
<b>Liabilities</b>		
Accounts payable and accrued liabilities	\$ 11,216	\$ 10,235
Land lease payable	18,159	13,039
Deferred revenue	1,263	2,534
Promissory note	3,750	3,750
Long-term debt	132,737	96,603
Cost to complete	7,257	8,177
	<b>\$ 174,382</b>	<b>\$ 134,338</b>
<b>Equity</b>		
Deficit	\$ (3,715)	\$ (4,688)
	<b>\$ 170,667</b>	<b>\$ 129,650</b>

**Statement of Operations:**

	December 31, 2021	December 31, 2020
Rental revenue	\$ 4,085	\$ 883
Rental operating expenses	1,599	266
	<b>\$ 2,486</b>	<b>\$ 617</b>
Land lease revenue	\$ 12,615	\$ 587
Cost of land lease	7,313	-
	<b>\$ 5,302</b>	<b>\$ 587</b>
Expenses	\$ 6,815	\$ 5,720
Net income (loss)	\$ 973	(4,516)
	<b>\$ 973</b>	<b>\$ (4,516)</b>

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
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**6. Tangible capital assets**

	2022					2021
	Buildings	Furnishings, equipment and systems	Learning resources	Land	Total	Total
<b>Cost</b>						
Beginning of year	\$ 3,059,059	\$ 600,963	\$ 259,180	\$ 47,913	\$ 3,967,115	\$ 3,823,518
Acquisitions	147,824	34,747	9,649	-	192,220	160,451
Disposals	-	(1,083)	-	-	(1,083)	(16,854)
	<b>\$ 3,206,883</b>	<b>\$ 634,627</b>	<b>\$ 268,829</b>	<b>\$ 47,913</b>	<b>\$ 4,158,252</b>	<b>\$ 3,967,115</b>
<b>Accumulated amortization</b>						
Beginning of year	\$ 1,201,565	\$ 444,239	\$ 216,593	\$ -	\$ 1,862,397	\$ 1,731,508
Amortization expense	94,411	51,132	8,574	-	154,117	147,727
Disposals	-	(1,082)	-	-	(1,082)	(16,838)
	<b>\$ 1,295,976</b>	<b>\$ 494,289</b>	<b>\$ 225,167</b>	<b>\$ -</b>	<b>\$ 2,015,432</b>	<b>\$ 1,862,397</b>
<b>Net book value at March 31, 2022</b>	<b>\$ 1,910,907</b>	<b>\$ 140,338</b>	<b>\$ 43,662</b>	<b>\$ 47,913</b>	<b>\$ 2,142,820</b>	<b>\$ 2,104,718</b>
Net book value as at March 31, 2021	\$ 1,857,494	\$ 156,724	\$ 42,587	\$ 47,913	\$ 2,104,718	

Tangible capital assets include work-in-progress at March 31, 2022 totaling \$207,615 (2021 - \$133,958) comprised of buildings \$196,057 (2021 - \$107,539) and furnishings, equipment and systems \$11,558 (2021 - \$26,419). Work-in-progress is not amortized as the assets are not available for use.

Acquisitions during the year included in-kind contributions (such as learning resources, equipment and software) in the amount of \$2,495 (2021 - \$2,257).

**7. Employee future benefit liabilities**

Employee future benefit liabilities are comprised of the following:

	2022	2021
Universities Academic Pension Plan	\$ 89,767	\$ 91,402
Long-term disability	4,126	4,294
Administrative leave (Note 22)	328	226
Supplementary retirement plan	13,599	13,019
	<b>\$ 107,820</b>	<b>\$ 108,941</b>

**(a) Defined benefit plans accounted for on a defined benefit basis**

**UAPP**

The UAPP is a multi-employer contributory joint defined benefit pension plan for academic and professional staff members. An actuarial valuation of the UAPP was carried out as at December 31, 2020 and was then extrapolated to March 31, 2022, resulting in a UAPP deficit of \$247,933 (2021 - \$817,447) consisting of a pre-1992 deficit of \$797,730 (2021 - \$832,342) and a post-1991 surplus of \$549,797 (2021 - \$14,895). The University's portion of the UAPP pre-1992 deficit and post-1991 surplus has been allocated based on its percentage of the plan's total employer contributions for the year.

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**7. Employee future benefit liabilities (Continued)**

The unfunded deficiency for service prior to January 1, 1992 is financed by additional contributions of 1.25% (2021 - 1.25%) of salaries by the Government of Alberta. Employees and employers equally share the balance of the contributions of 3.04% (2021 - 2.90%) of salaries until June 30, 2022 and 3.57% (2021 - 3.04%) of salaries thereafter until December 31, 2043 to eliminate the unfunded deficiency. The Government of Alberta's obligation for the future additional contributions was \$226,028 (2021 - \$249,339) at March 31, 2022. Any unfunded deficiency for service after December 31, 1991 is financed by special payments shared equally between employees and employers of 2.50% of pensionable earnings until June 30, 2022, then reducing to 0.00% of salaries thereafter (2021 - 3.38% of salaries until June 30, 2020, then reducing to 3.24% of salaries until December 31, 2021, 1.71% of salaries for 2022 and 2023, 0.70% of salaries for 2024 and 2025, and 0.25% of salaries for 2026 and 2027).

**SRP**

The University provides non-contributory defined benefit supplementary retirement benefits to executives. An actuarial valuation of these benefits was carried out as at March 31, 2022.

The expenses and financial position of these defined benefit plans are as follows:

	March 31, 2022			March 31, 2021		
	UAPP	Long-term disability <sup>(1)</sup>	SRP <sup>(1)</sup>	UAPP	Long-term disability <sup>(1)</sup>	SRP <sup>(1)</sup>
<b>Expenses</b>						
Current service cost	\$ 39,425	\$ 788	\$ 375	\$ 35,556	\$ 814	\$ 495
Interest cost	6,183	93	342	11,144	102	320
Amortization of net actuarial loss (gain)	1,159	(621)	366	9,846	(713)	460
<b>Total expenses</b>	<b>\$ 46,767</b>	<b>\$ 260</b>	<b>\$ 1,083</b>	<b>\$ 56,546</b>	<b>\$ 203</b>	<b>\$ 1,275</b>
<b>Financial Position</b>						
<b>Accrued benefit obligation:</b>						
Balance, beginning of year	\$ 1,138,926	\$ 4,294	\$ 13,557	\$ 1,024,944	\$ 4,502	\$ 13,667
Current service cost	39,425	788	375	35,556	814	495
Interest cost	59,944	93	342	58,041	102	320
Benefits paid	(51,159)	(428)	(503)	(48,096)	(411)	(460)
Actuarial loss (gain)	22,850	(621)	(661)	68,481	(713)	(465)
<b>Balance, end of year</b>	<b>\$ 1,209,986</b>	<b>\$ 4,126</b>	<b>\$ 13,110</b>	<b>\$ 1,138,926</b>	<b>\$ 4,294</b>	<b>\$ 13,557</b>
Plan assets	1,205,962	-	-	1,035,239	-	-
<b>Plan deficit</b>	<b>\$ (4,024)</b>	<b>\$ (4,126)</b>	<b>\$ (13,110)</b>	<b>\$ (103,687)</b>	<b>\$ (4,294)</b>	<b>\$ (13,557)</b>
Unamortized net actuarial (gain) loss	\$ (85,743)	\$ -	\$ (489)	\$ 12,285	\$ -	\$ 538
<b>Accrued benefit liability</b>	<b>\$ (89,767)</b>	<b>\$ (4,126)</b>	<b>\$ (13,599)</b>	<b>\$ (91,402)</b>	<b>\$ (4,294)</b>	<b>\$ (13,019)</b>

<sup>(1)</sup> The University plans to use its working capital to finance these future obligations.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
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**7. Employee future benefit liabilities (Continued)**

The significant actuarial assumptions used to measure the accrued benefit obligation are as follows:

	March 31, 2022			March 31, 2021		
	UAPP	Long-term disability	SRP	UAPP	Long-term disability	SRP
<b>Accrued benefit obligation:</b>						
Discount rate	5.10 %	3.20 %	3.20 %	5.20 %	1.90 %	2.50 %
Long-term average compensation increase	3.00 %	n/a	2.00 %	3.00 %	n/a	2.00 %
<b>Benefit cost:</b>						
Discount rate	5.20 %	3.20 %	2.50 %	5.60 %	1.90 %	2.30 %
Long-term average compensation increase	3.00 %	n/a	2.00 %	3.00 %	n/a	2.00 %
Alberta inflation (long-term)	2.00 %	n/a	2.00 %	2.00 %	n/a	1.50 %
Estimated average remaining service life	10.6 yrs	6.48 yrs	3 yrs	10.6 yrs	6.47 yrs	3 yrs

**(b) Defined benefit plans accounted for on a defined contribution basis**

**PSPP**

PSPP is a multi-employer contributory defined benefit pension plan for support staff members. As the University does not have sufficient information to follow the accounting standards for defined benefit plans, PSPP is accounted for on a defined contribution basis. The pension expense recorded in these consolidated financial statements is \$21,513 (2021 - \$22,258).

An actuarial valuation of the PSPP was carried out as at December 31, 2020 and was then extrapolated to December 31, 2021. At December 31, 2021, the PSPP reported an actuarial surplus of \$4,588,479 (December 31, 2020 - \$2,223,582). For the year ended December 31, 2021 PSPP reported employer contributions of \$310,371 (2020 - \$323,497). For the 2021 calendar year, the University's employer contributions were \$21,908 (2020 - \$22,776).

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
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**8. Debt**

Debt is measured at amortized cost and is comprised of the following:

	Collateral	Maturity date	Interest rate %	2022	2021
Debtures payable to the Department of Treasury Board and Finance:					
Debenture for Cascade Hall	(1)	May 2025	6.25%	\$ 4,553	\$ 5,529
Debenture for Residences	(1)	December 2038	3.90%	68,012	70,789
Debenture for International Residence House	(1)	June 2039	5.10%	22,260	23,033
Debenture for Phase VI Residence	(1)	March 2040	4.73%	45,997	47,588
Mortgage payable:					
Mortgage for University Innovation Quarter Trust Alastair Ross Technology Centre	(2)	December 2026	3.28%	17,883	-
Bank loans payable:					
Demand loan for Western Canadian Universities Marine Sciences Society	(3)	April 2026	3.76%	177	191
Demand loan for Western Canadian Universities Marine Sciences Society	(3)	June 2022	2.45%	69	69
				<b>\$ 158,951</b>	<b>\$ 147,199</b>
Obligations under capital leases				<b>\$ 588</b>	<b>\$ 827</b>
				<b>\$ 159,539</b>	<b>\$ 148,026</b>

(1) General security agreement

(2) Secured by a demand collateral leasehold mortgage over UIQT's interest in all lands, in addition to a general security agreement

(3) None

Interest expense on debt recorded in these consolidated statements is \$6,511 (2021 - \$6,790) of which \$ nil (2021 - \$ nil) was capitalized. Principal and interest repayments are as follows:

	Principal	Interest	Total
2023	\$ 7,948	\$ 6,809	\$ 14,757
2024	7,990	6,492	14,482
2025	8,124	6,170	14,294
2026	8,456	5,838	14,294
2027	7,431	5,491	12,922
Thereafter	119,590	40,185	159,775
	<b>\$ 159,539</b>	<b>\$ 70,985</b>	<b>\$ 230,524</b>

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
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(in thousands)**



**9. Deferred revenue**

	2022		
	Unspent externally restricted grants and donations	Tuition and other fees	Total
Balance, beginning of year	\$ 660,423	\$ 21,168	\$ 681,591
Grants, tuition and donations received	555,635	286,416	842,051
Investment income	42,717	-	42,717
Transfer to spent deferred capital contributions	(96,362)	-	(96,362)
Recognized as revenue	(449,716)	(275,919)	(725,635)
	<b>\$ 712,697</b>	<b>\$ 31,665</b>	<b>\$ 744,362</b>

	2021		
	Unspent externally restricted grants and donations	Tuition and other fees	Total
Balance, beginning of year	\$ 544,965	\$ 24,694	\$ 569,659
Grants, tuition and donations received	584,619	235,935	820,554
Investment income	44,078	-	44,078
Transfer to spent deferred capital contributions	(91,534)	-	(91,534)
Recognized as revenue	(421,705)	(239,461)	(661,166)
	<b>\$ 660,423</b>	<b>\$ 21,168</b>	<b>\$ 681,591</b>

**10. Spent deferred capital contributions**

Spent deferred capital contributions are comprised of externally restricted grants and donations spent on tangible capital acquisitions (not yet recognized as revenue).

	2022	2021
Balance, beginning of year	\$ 1,446,920	\$ 1,450,438
Transfer from unspent externally restricted grants and donations	96,362	91,534
Expended capital contributions recognized as revenue	(96,708)	(95,052)
	<b>\$ 1,446,574</b>	<b>\$ 1,446,920</b>

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
FOR THE YEAR ENDED MARCH 31, 2022  
(in thousands)



11. Net Assets

	2022					2021
	Unrestricted	Investment in tangible capital assets	Internally restricted	Endowments	Total	Total
<b>Net Assets, beginning of year</b>	\$ 30,222	\$ 509,772	\$ 278,017	\$ 1,119,998	\$ 1,938,009	\$ 1,717,928
<b>Annual operating surplus (deficit)</b>	26,284	-	-	-	26,284	(10,075)
<b>Transfer to internally restricted net of expenditures</b>	(21,286)	-	21,286	-	-	-
<b>Endowment</b>						
New contributions	-	-	-	8,987	8,987	15,431
Capitalized investment income	-	-	-	27,567	27,567	-
<b>Tangible capital assets</b>						
Acquisition of capital assets	(35,735)	95,857	(60,122)	-	-	-
Amortization of capital assets	57,409	(57,409)	-	-	-	-
Debt repayment	(6,370)	6,370	-	-	-	-
Debt - new financing	17,883	(17,883)	-	-	-	-
<b>Change in accumulated remeasurement gains</b>	(25,726)	-	-	6,310	(19,416)	214,725
<b>Net assets at March 31, 2022</b>	\$ 42,681	\$ 536,707	\$ 239,181	\$ 1,162,862	\$ 1,981,431	\$ 1,938,009
<b>Net assets is comprised of:</b>						
Accumulated surplus	\$ 47,057	\$ 536,707	\$ 239,181	\$ 941,406	\$ 1,764,351	\$ 1,701,513
Accumulated remeasurement (losses) gains	(4,376)	-	-	221,456	217,080	236,496
<b>Net assets at March 31, 2022</b>	\$ 42,681	\$ 536,707	\$ 239,181	\$ 1,162,862	\$ 1,981,431	\$ 1,938,009

**Internally restricted net assets**

Internally restricted net assets represent amounts set aside by the University's Board of Governors for strategic initiatives in support of student learning, research, capital projects and community service. During the fiscal year ended March 31, 2022, the Board redirected internally restricted net asset amounts to fund strategic capital construction programs on campus. The academic, institutional, and research initiatives previously funded by internally restricted net assets are ongoing and will be funded through the University's annual budgeting process. Internally restricted net assets are summarized as follows:

	2022	2021
Capital projects	\$ 239,181	\$ 55,235
Academic and institutional initiatives	-	98,223
Research activities	-	124,559
	\$ 239,181	\$ 278,017

12. Contingent assets

The University is a defendant in a number of legal proceedings arising in the normal course of business and has insurance to recover any possible legal settlement. The future receipt of these assets is dependent on the outcome of the contingent liability occurring. These contingent assets are not recorded in the consolidated financial statements.



**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
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**13. Contingent liabilities**

The University is a defendant in a number of legal proceedings arising in the normal course of business. While the ultimate outcome and liability of these proceedings cannot be reasonably estimated at this time, the University believes that any settlement will not have a material adverse effect on the financial position or the results of operations of the University. Management has concluded that none of the claims meet the criteria for recording a liability.

The University has identified potential asset retirement obligations related to the existence of asbestos in a number of its facilities. Although not a current health hazard, upon renovation or demolition of these facilities, the University may be required to take appropriate remediation procedures to remove the asbestos. The University has no legal obligation to remove the asbestos in these facilities as long as the asbestos is contained and does not pose a public health risk. The asset retirement obligations for these assets will be recorded upon adoption of the PS 3280 Asset retirement obligations accounting standards (Note 2 (m)).

During the fiscal period ended March 31, 2022 the University eliminated all outstanding agreements that provided guarantees on employee housing loans. These amounts were not recorded in the consolidated financial statements. No new loan agreements were extended during the period (2021 - \$500).

**14. Contractual rights**

Contractual rights are rights of the University to economic resources arising from contracts or agreements that will result in both assets and revenues in the future when the terms of those contracts or agreements are met.

Estimated amounts that will be received or receivable for each of the next five years and thereafter are as follows:

	Operating leases	Other contracts	Total
2023	\$ 7,264	\$ 5,422	\$ 12,686
2024	5,987	1,159	7,146
2025	3,299	648	3,947
2026	1,663	482	2,145
2027	829	382	1,211
Thereafter	23,147	609	23,756
<b>March 31, 2022</b>	<b>\$ 42,189</b>	<b>\$ 8,702</b>	<b>\$ 50,891</b>
March 30, 2021	\$ 40,657	\$ 8,863	\$ 49,520

**15. Contractual obligations**

The University has contractual obligations which are commitments that will become liabilities in the future when the terms of the contracts or agreements are met.

The estimated aggregate amount payable for the unexpired terms of these contractual obligations are as follows:

	Service contracts	Capital projects	Long-term leases	Other	Total
2023	\$ 125,871	\$ 69,751	\$ 5,743	\$ 131,248	\$ 332,613
2024	96	1,669	5,567	-	7,332
2025	96	1,471	5,425	-	6,992
2026	87	1,514	5,448	-	7,049
2027	75	15	5,365	-	5,455
Thereafter	-	-	18,036	-	18,036
<b>March 31, 2022</b>	<b>\$ 126,225</b>	<b>\$ 74,420</b>	<b>\$ 45,584</b>	<b>\$ 131,248</b>	<b>\$ 377,477</b>
March 30, 2021	\$ 33,384	\$ 108,286	\$ 52,253	\$ 57,139	\$ 251,062

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
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**15. Contractual obligations (Continued)**

The University is one of 64 members of CURIE, the Canadian Universities Reciprocal Insurance Exchange, a self-insurance reciprocal established to share the insurable property, liability, and errors and omissions risks of member universities. The projected cost of claims against the exchange is based on actuarial projections and is funded through members' premiums. As at December 31, 2021 CURIE had a surplus of \$10,034 (2020 - \$11,400). The University participates in seven of the underwriting periods, which have an accumulated surplus of \$105,790 (2020 - \$99,449) of which the University's pro rata share is approximately 5.97% (2020 - 5.98%). This surplus is not recorded in the financial statements.

**16. Budget comparison**

Budgeted figures have been provided for comparison purposes and have been derived from the University's budget as approved by the Board of Governors and submitted to the Minister of Advanced Education.

**17. Investment income**

	2022	2021
Portfolio investments - restricted for endowments	\$ 69,589	\$ 42,991
Portfolio investments - non-endowment	30,796	38,433
	\$ 100,385	\$ 81,424
Income capitalized to endowments	(27,567)	-
	\$ 72,818	\$ 81,424

**18. Expense by object**

	2022 Budget (Note 16)	2022	2021
Salaries	\$ 669,542	\$ 695,025	\$ 690,350
Employee benefits	129,331	136,786	144,080
Materials, supplies and services	268,003	282,570	259,092
Utilities	24,698	25,724	22,168
Maintenance and repairs	15,480	16,524	18,002
Scholarships and bursaries	122,048	119,090	114,053
Cost of goods sold	7,479	12,979	7,796
Amortization of tangible capital assets	162,382	154,117	147,727
	\$ 1,398,963	\$ 1,442,815	\$ 1,403,268

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
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**19. Funds held on behalf of others**

The University holds the following funds on behalf of others over which the University's Board of Governors has no power of appropriation. Accordingly, these funds are not included in the University's consolidated financial statements.

	2022	2021
University of Calgary Medical Group	\$ 8,494	\$ 12,875
Alberta Gambling Research Institute	437	963
State of Qatar	246	281
Alberta Sulphur Research	266	26
Others	181	85
	<b>\$ 9,624</b>	<b>\$ 14,230</b>

**20. Related parties**

The University is a related party to organizations within the Government of Alberta reporting entity. Key management personnel and Board of Governors and close family members are also considered related parties. The institution may enter into transactions with these entities and individuals in the normal course of operations and on normal terms.

The University has debt with the Department of Treasury Board and Finance as described in Note 8.

During the year, the University provided and received the following at nominal or reduced amounts:

- The University operates its Spy Hill Campus on land leased from the Alberta Ministry of Infrastructure under a 42 year lease agreement. The University of Calgary has occupied the 131 acre Spy Hill Campus since 1972 and is charged a nominal annual amount.
- The University's Biogeoscience Institute is a leading field research station that operates in the Kananaskis Provincial Park in Alberta. By maintaining the site and being responsible for all costs, the University occupies the research station at nominal charge from the Alberta Ministry of Environment and Parks.
- The University has integrated programs and research activities with Alberta Health Services ("AHS"). As part of the collaborative environment with AHS and the close proximity of the University to Foothills Hospital and the Alberta Children's Hospital, the University leases 72,200 square feet of space to AHS at amounts covering operating costs.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
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**21. Government transfers**

The University operates under the authority and statutes of the Province of Alberta. Transactions and balances between the University and the Government of Alberta ("GOA") are measured at the exchange amount and summarized below.

	2022	2021
Grants from GOA		
Advanced Education:		
Operating	\$ 405,499	\$ 430,473
Capital	63,054	82,454
Research	8,413	9,066
Other	9,373	6,789
<b>Total Advanced Education</b>	<b>\$ 486,339</b>	<b>\$ 528,782</b>
<b>Other post-secondary institutions</b>	<b>\$ 3,326</b>	<b>\$ 2,966</b>
Other GOA departments and agencies:		
Alberta Health	\$ 86,630	\$ 84,261
Other	43,830	50,192
<b>Total other GOA departments and agencies</b>	<b>\$ 130,460</b>	<b>\$ 134,453</b>
<b>Total contributions received</b>	<b>\$ 620,125</b>	<b>\$ 666,201</b>
Restricted expended capital contributions recognized as revenue	69,898	68,986
Less: deferred revenue	(80,748)	(107,270)
<b>Government of Alberta grants</b>	<b>\$ 609,275</b>	<b>\$ 627,917</b>
Federal and other government grants		
Contributions received	\$ 224,481	\$ 249,995
Restricted expended capital contributions recognized as revenue	13,354	13,027
Less: deferred revenue	(37,815)	(68,706)
<b>Federal and other government grants</b>	<b>\$ 200,020</b>	<b>\$ 194,316</b>

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**22. Salary and Employee Benefits**

	2022			
	Base salary <sup>(1)</sup>	Other cash benefits <sup>(2)</sup>	Other non-cash benefits <sup>(3) (4)</sup>	Total
<b>Governance <sup>(5)</sup></b>				
Chair of the Board of Governors	\$ -	\$ -	\$ -	\$ -
Members of the Board of Governors	-	-	-	-
Chancellor honorarium	-	-	-	-
<b>Executive</b>				
President <sup>(6)(7)</sup>	447	6	269	722
Vice-Presidents:				
Provost and Vice President Academic <sup>(8)</sup>	401	25	161	587
Vice President Advancement				
Incumbent <sup>(9)</sup>	55	45	50	150
Past Interim Incumbent - Communications <sup>(9)</sup>	250	-	31	281
Past Interim Incumbent - Development <sup>(9)</sup>	250	-	31	281
Vice President Finance and Services				
Past Incumbent <sup>(10)</sup>	107	501	121	729
Interim Incumbent - Finance <sup>(10)</sup>	200	-	29	229
Interim Incumbent - Services <sup>(10)</sup>	190	-	28	218
Vice President Research	235	50	58	343

	2021			
	Base salary <sup>(1)</sup>	Other cash benefits <sup>(2)</sup>	Other non-cash benefits <sup>(3) (4)</sup>	Total
<b>Governance <sup>(5)</sup></b>				
Chair of the Board of Governors	\$ -	\$ -	\$ -	\$ -
Members of the Board of Governors	-	-	-	-
Chancellor honorarium	-	-	-	-
<b>Executive</b>				
President <sup>(6)(7)</sup>	447	6	243	696
Vice-Presidents:				
Provost and Vice President Academic <sup>(8)</sup>	429	12	144	585
Vice President Advancement				
Past Incumbent <sup>(11)</sup>	371	25	118	514
Interim Incumbent - Communications <sup>(11)</sup>	13	-	1	14
Interim Incumbent - Development <sup>(11)</sup>	13	-	1	14
Vice President Facilities				
Past Incumbent <sup>(12)</sup>	159	479	99	737
Vice President Finance and Services	320	12	129	461
Vice President Research	235	50	58	343

1. Base salary includes pensionable base pay.

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**22. Salary and Employee Benefits (Continued)**

2. Other cash benefits include vacation payouts, administrative honorariums, stipends, executive allowances, lump sum payments, retirement allowances, and severance. No bonuses were paid in fiscal year 2022.
3. Other non-cash benefits include the University's share of all employee benefits and contributions or payments made on behalf of employees including pension, administrative leave, group life insurance, employee family assistance program, critical illness, supplementary health care, short and long-term disability plan, supplementary retirement plan (per footnote (4)), professional memberships, payment of legal fees, relocation benefits, accidental disability and dismemberment.
4. Under the terms of the supplementary retirement plan ("SRP"), the executive may receive supplemental retirement payments. Retirement arrangement costs as detailed are not cash payments in the period but are period expenses for rights to future compensation. Costs shown reflect the total estimated cost to provide annual pension income over an actuarially determined post employment period. The SRP provides future pension benefits to participants based on years of service and earnings. The cost of these benefits is actuarially determined using the projected benefit method prorated on services, a market interest rate, and management's best estimate of other assumptions. Net actuarial gains and losses of the benefit obligations are amortized over the expected remaining service life of each plan participant. Current service cost is the actuarial present value of the benefits earned in the current year. The components of the cost of the SRP include current service cost, amortization of actuarial gains and losses, past service costs on plan initiation, and interest accruing on the actuarial liability.
5. The Chair and Members of the Board of Governors receive no remuneration for participation on the Board.
6. The individual in this role received a vehicle allowance included in other cash benefits and a taxable parking benefit included in other non-cash benefits.
7. The individual in this role earned future administrative leave benefits during the year that have been included in other non-cash benefits.
8. The new Provost and Vice President Academic incumbent occupied the position as of April 1, 2021.
9. During the fiscal year, both Vice President Advancement past interim incumbent positions were occupied until January 31, 2022. The Vice President Advancement incumbent position was occupied as of February 1, 2022.
10. During the fiscal year, the Vice President Finance and Services past incumbent position was occupied until July 31, 2021. The Vice President Finance and Services past incumbent position received a retiring allowance of \$480 which is included in other cash benefits. Both Vice President Finance and Services interim incumbent positions were occupied as of August 1, 2021.
11. During the prior fiscal year, the Vice President Advancement Past Incumbent position was occupied until March 15, 2021. Both Vice President Advancement Interim Incumbent positions were occupied on March 16, 2021.
12. During the prior fiscal year, the Vice President Facilities Past Incumbent position was occupied until October 1, 2020. The Vice President of Facilities Past Incumbent position received severance of \$473 which is included in prior year other cash benefits.

The current service cost and accrued obligation for each executive under the SRP is outlined in the following table:

	Accrued benefit obligation March 31, 2021	Service costs	Interest costs	Actuarial loss (gain)	Benefits paid	Accrued benefit obligation March 31, 2022
President	\$ 885	\$ 91	\$ 24	\$ (73)	\$ -	\$ 927
Vice-Presidents:						
Provost and Vice President Academic	-	85	2	(6)	-	81
Vice President Advancement						
Incumbent	-	9	-	(1)	-	8
Vice President Finance and Services						
Past Incumbent	478	71	14	(58)	(7)	498
Vice President Research	19	18	1	(3)	-	35

The significant actuarial assumptions used to measure the accrued benefit obligation are disclosed in Note 7.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
FOR THE YEAR ENDED MARCH 31, 2022  
(in thousands)**



**22. Salary and Employee Benefits (Continued)**

The current service cost and accrued obligation for the President's Administrative Leave is outlined in the following table:

	Accrued benefit obligation March 31, 2021	Service costs	Interest costs	Actuarial loss (gain)	Benefits paid	Accrued benefit obligation March 31, 2022
Administrative Leave-Incumbent	\$ 226	\$ 101	\$ 6	\$ (5)	\$ -	\$ 328

The significant actuarial assumptions used to measure the accrued benefit obligation for the Administrative Leave are based on a discount rate of 2.6% (2021 – 1.9%) and a yearly salary increase rate of 0% (2021 - 0%). An administrative leave benefit loading rate of 20% is applied to the President.

**23. Comparative Figures**

Certain comparative figures have been reclassified to confirm with current year presentation.



# UNIVERSITY OF CALGARY

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