

Calgary in the New Economy: Progress Report

Calgary Economic Development is a conduit, connector, catalyst and storyteller that collaborates with stakeholders to advance economic growth and diversification.

17 MAY 2022 PROGRESS REPORT TO EXECUTIVE (FORMERLY PRIORITIES AND FINANCE) COMMITTEE

Executive Summary

Calgary in the New Economy's vision is for Calgary to be the place where bright minds and big ideas come together with an unmatched spirit to help solve global challenges. Anything is possible in Calgary—an opportunity-rich city of creative innovators, dreamers, visionaries, and game changers. *Calgary in the New Economy* sets out an ambitious vision for the city, one that will create long-term prosperity and opportunities for all. Four focus areas work in tandem to create a thriving economy. The strategy is a call to action for all Calgarians.

2021 saw Calgarians still adjusting to the ongoing impacts of COVID-19, with vaccines available, new variants emerging, and restrictions being updated and shifted. What didn't change, however, was the resiliency of Calgarians to find creative, new, and exciting ways of doing things and leaning into the challenges and opportunities presented by COVID-19 and other local and world events.

The momentum was evident in a growing tech sector that's now a driver of economic diversification and employment. Major investment [announcements in 2021](#) all focused on technology:

- Venture Capital (VC) investment surged in Calgary with almost 90 per cent of activity in Alberta coming from 66 companies totalling \$500 million.
- Infosys, a global leader in digital services, will open an office and bring 500 jobs to Calgary by 2023.
- Mphasis, a global IT solutions provider, the Government of Alberta and University of Calgary (UCalgary) launched Quantum City Centre of Excellence which will create 1,000 jobs by 2023.
- RBC will open a Calgary Innovation Hub and create 300 technology roles by 2024.
- Amazon Web Services (AWS) will invest \$4.3 billion in Alberta to establish a Data Center Region in Calgary by 2024.
- SVG Ventures | Thrive, a global AgriFood investment and innovation platform announced the opening of their Canadian Headquarters in Calgary. Opportunity Calgary Investment Fund (OCIF) committed \$1 million to support the acceleration of promising Calgary-startups in the Agtech sector through Thrive's Canadian Accelerator over two years.
- Plug and Play announced the establishment of their Canadian Headquarters in Calgary. OCIF committed \$7M to support the acceleration of 231 Calgary Startups over five years.
- OCIF announced \$3M funding to Creative Destruction Lab-Rockies (CDL-R) to support acceleration of 120 Calgary startups over the next 5 years.
- Accelerate Fund III announced support for early-stage (pre-Series A) Calgary technology companies through. OCIF will match up to \$6 million toward investments made in Calgary's early-stage companies to help accelerate the growth of the local tech and innovation sector.
- OCIF pledged \$330k to graduate 165 Calgary-based woman identifying individuals through Movement51's Financial Feminism Investment Lab.

- A team comprised of The City of Calgary, Calgary Economic Development, SAIT, and Platform Calgary initiated the Discovery Phase of advancing an Innovation District in Calgary.

Film and television production spending surged to a record \$522 million in 2021. Additionally, Calgary Economic Development supported the attraction, retention, or expansion of 30 companies (excluding film and TV) and worked with local companies that completed 34 trade export deals, more than double the level of the previous two years. The companies supported absorbed more than 297,000 sq. ft. of downtown office space, contributing to a total of more than 1.3 million sq. ft. of commercial and industrial space filled in 2021 compared to 258,055 sq. ft. in 2020. All of this to say that companies, capital and talent were top of mind in 2021 across all sectors.

The value of municipal building permits reached a 10-year high and, even though unemployment remains high, Calgary added 15,000 jobs and has more people working than at any other time in the city's history.

This highlight of accomplishments aligns with the four focus areas of *Calgary in the New Economy*—Talent, Innovation, Place, and Business Environment. These focus areas don't work in isolation. Instead, each focus area's progress enables the others—these points of intersection are where the most significant impact occurs. The Greater Downtown Plan, for example, is an important cross-sectoral initiative in Calgary, where all the areas work together to create a transformational impact. This Plan focuses not only on incentives for office conversion, replacement, and development (business environment), but also on residential development projects that improve public spaces and create vibrancy to attract talent, with a focus on culture and public activations in the core (place), that all come together to drive creative collisions and innovation in and around the downtown (innovation and talent).

2021 saw Calgarians participate in both a federal and municipal election, the latter resulting in the election of a new mayor and largely new council. Shortly after taking office, the new council voted to declare a climate emergency, highlighting this as a priority for the City. With the world moving towards a "new normal," people are evaluating and re-evaluating what's most important to them in a world that's beginning to move forward with COVID-19 as a daily constant. This marked the perfect time to pressure-test *Calgary in the New Economy* to better represent these new circumstances, incorporating a strategy that can adapt and adjust to whatever unprecedented and unpredictable events may await.

2021 Strategy Refinement

In 2021, Calgary Economic Development pressure-tested *Calgary in the New Economy* partially in response to the disruptions exacerbated by world challenges such as COVID-19 and the precipitous fall in oil prices, to evaluate the relevance, resilience, and adaptability of the economic strategy.

The intent of pressure-testing the strategy in its current form was to make the strategy more tangible and measurable using simple, inspiring, clear statements and consistent, relevant metrics to measure progress and performance. This strategy is a strategy for the community and therefore, it is vital that it lives and evolves through continuous feedback loops and community involvement.

This work was accomplished by:

1. Testing the strategy with scenario analysis that identified global trends to monitor based on relevance for Calgary and explore implications of possible future scenarios on the strategy and how we activate.
2. Engaging the community and raise awareness about the strategy through online surveys, open houses, and focus groups. Over 720 community members and businesses participated in the various engagement opportunities.

These consultations confirmed the strategic direction and areas of focus within the current strategy were on the right track, but highlighted areas of opportunity with the language and communication of the strategy; opportunities to be more inclusive, inspiring, ambitious, and human-centred. Calgary's reputation and brand was a recurring theme in all conversations. Business leaders across a variety of sectors felt that external perceptions of Calgary (and Alberta) were a challenge to attracting and retaining companies, capital and talent. There was a strong sense that more emphasis needed to be placed on collectively working towards changing those perceptions, which is not the job of a single organization but rather a community effort.

As a result of these sessions, Calgary Economic Development will continue to drive the economic strategy forward through:

- Conducting ongoing community engagement and outreach with civic partners, under-represented communities and groups in our city, including Indigenous and newcomer communities, and all Calgarians to showcase the efforts and progress made towards economic development and diversification.
- Championing and driving transformational initiatives related to the strategy, initiatives that support multiple focus areas at once and include diverse groups of audiences and users from within the city.

Governance and Management

Calgary in the New Economy is stewarded by Calgary Economic Development. Our role includes ensuring the strategy is resilient and relevant, now and in the future, reporting on progress toward the vision and priorities within the strategy and coordinating and aligning the multiple organizations and groups critical to achieving the vision set out in the strategy; Such groups include The City of Calgary and other civic partners including but not limited to Calgary Municipal Land Corp., Tourism Calgary, and Calgary Arts Development.

At the end of the day, realizing the vision and outcomes outlined in the strategy is the work of all Calgarians, not just civic partners, including businesses, non-profits, newcomer and immigrant serving organizations, arts and culture groups, and more. This is a community effort.

Each focus area is managed in a common way with area-specific differences, where appropriate. All work within a focus area includes community leaders and diverse stakeholders with representation from different groups in their ecosystem. Stakeholders are brought together to provide thought leadership, collaborate, and activate the strategy.

CALGARY IN THE NEW ECONOMY KEY PERFORMANCE INDICATOR (KPI) SCORECARD		
TALENT	2021 data	Trend
Schooling completion rates (secondary)	182,744 ¹	↓
Schooling completion rates (post-secondary/colleges/institutes) FLE (Full Load Equivalent)	18,150 ²	↓
Schooling completion rates (post-secondary/colleges/institutes) International students with FLE	2,510 ³	↑
Schooling completion rates (post-secondary/colleges/institutes) Indigenous with FLE	600 ⁴	Not available
Enrollment in Work Integrated Learning (WIL)/Experiential Learning offerings	1,980 WIL Participations in 2021 with a total program completion rate of 4,342 in 2021 in 135 programs ⁵	↑
Net population change from 2020	14,467 ⁶	↓
Net intraprovincial migration	2,892 ⁷	↑
Net interprovincial migration	-3,347 ⁸	↓
INNOVATION	2021 data	Trend
Startup companies in Calgary (1 - 4 employees)	385 ⁹	↑
Core technology companies in Calgary (>5 employees)	527 ¹⁰	↑
Number of technology jobs (Tech Talent jobs as a percentage of total jobs, as defined by CBRE)	7.1% ¹¹	↑
Ranking in CBRE Tech Talent Report	28 of 50 (increase of 6 rankings from 2020)	↑
Number of Venture deals and total capital funds secured	66 (4 th in Canada) \$500 Million in private equity deals	↑

¹ City of Calgary Open Data Set, <https://data.calgary.ca/Demographics/School-Enrolment-Bar-Chart/7b64-duti>.

² Government of Alberta's Open Data dataset titled 'Full Load Equivalent (FLE) Enrolment within the Alberta Post-Secondary Education System.

³ Government of Alberta's Open Data dataset titled 'Full Load Equivalent (FLE) Enrolment within the Alberta Post-Secondary Education System.

⁴ Government of Alberta's Open Data dataset titled 'Full Load Equivalent (FLE) Enrolment within the Alberta Post-Secondary Education System.

⁵ This data is from Calgary Economic Development's Tech Talent Survey and only reflects a small snapshot of the ecosystem with 135 programs reported on, not all of them offering WIL programming.

⁶ Statistics Canada. Table 17-10-0135-01 Population estimates, July 1, by census metropolitan area and census agglomeration, 2016 boundaries.

⁷ Statistics Canada. Table 17-10-0138-01 Components of population change by economic region, 2016 boundaries.

⁸ Statistics Canada. Table 17-10-0138-01 Components of population change by economic region, 2016 boundaries.

⁹ This data was collected by Zinc Ventures, A100, and Platform Calgary and is a Zinc Ventures prototype as part of the Butterfly Collection.

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¹¹ CBRE Tech Talent Report.

Perceptions of Calgary is an innovative city (New solutions, ideas, and technologies are being applied in new ways in Calgary)	76% of business leaders agree ¹²	↑
PLACE	2021 data	Trend
Greenhouse gas emissions per capita (Tonnes of CO2 equivalent emitted/capita)	11.9	↑
Citizen's perception of Calgary being a great place to make a life	88% feel Calgary is a good place for families ¹³ 83% believe Calgary is a good place for young people to live 80% believe Calgarians are entitled to a living wage 70% of those aged 65+ feel Calgary is a good place for seniors to live	↓
Perceptions of amenity-rich/complete neighbourhoods	84% of people are proud to live in their neighbourhoods ¹⁴	↓
Number of amenities (theatres, museums, concert halls, art galleries, and sports and recreation facilities)	853 ¹⁵	Not available
BUSINESS ENVIRONMENT	2021 data	Trend
Number of site inquiries from Wireless Service Providers to The City (each inquiry containing between 1-20 sites)	34	↑
Physical connectivity activity (air cargo landings)	5363	↑
Business counts	58,788 ¹⁶	↑
Perception of businesses that it's 'easy to do business' in Calgary (Calgary is a good place to do business)	77% of business leaders agree ¹⁷	↑

Note: The arrows in the figure above represent the overall positive or negative trending nature of the data. They do not represent increased or decreased numerical values.

¹² Calgary Economic Development External Perceptions Final Report, 2021.

¹³ City of Calgary Quality of Life and Citizen Satisfaction Survey, Fall 2021.

¹⁴ City of Calgary Quality of Life and Citizen Satisfaction Survey, Fall 2021.

¹⁵ Tripadvisor (https://www.tripadvisor.ca/Attractions-g154913-Activities-a_allAttractions.true-Calgary_Alberta.html), retrieved March 2022.

¹⁶ Canadian Business Counts, with employees, census metropolitan areas and census subdivisions, December 2021.

¹⁷ Calgary Economic Development External Perceptions Final Report, 2021.

Highlights From 2021

TALENT

- Future Skills Centre (FSC) invested over \$5 million in the EDGE UP 2.0 program to provide training for 320 displaced oil and gas professionals for careers in tech.
- Calgary Economic Development began working with seven post-secondary institutions (PSIs) in Calgary to support the successful integration of the Work Integrated Learning (WIL) regional pilot project for students, employees, and industry partners across Calgary. This is an exemplary program as it showcases the ingenuity and the collective effort to support post secondary students across the city, with provincial and federal funding support.
- Over 81 new full-time jobs were created by Trade Accelerator Program (TAP) alumni in Calgary and more than 29,000 sq. ft. of office and warehouse space was occupied. TAP Calgary ran its first cohort for women-led businesses and the unique challenges they face with eight companies attending.
- During its first year ending in fall 2021, AltaML's Applied AI Lab received over 1,500 applicants for 64 positions available over 4 cohorts with a completion rate of 100%. Of the 45 graduates in 2021, 87% found employment within 60 days of graduation.
- Lighthouse Labs graduated 75 Calgary individuals in 2021 from its Web Development Boot Camp, with an employment rate of 96% within 180 days after graduation. Lighthouse Lab received \$300K in 2019 to accelerate expansion of its Web Development Bootcamp program in Calgary.
- To date, NPower Canada has provided training for nearly 400 Calgarians through its free in-demand digital and professional skills training for young adults, with the organization receiving public-backed funding in 2019.
- Intergen released its integrated HotSpot with Matching Platform to enhance/expedite connections through AI between transitioning senior executives and later-stage startups. To date, they have had well over 100 companies and senior executives enrolled and over two dozen successful long-term matches achieved.
- The public and private sector have joined forces to create a Quantum City Centre for Excellence housed at the University of Calgary which will develop talent and strengthen the quantum computing ecosystem.
- SAIT's School of Information and Communications Technologies merged with the School of Advanced Digital Technology (SADT) to ensure the continued success of talent in an increasingly digital world.

INNOVATION

- University of Calgary was ranked the number one amongst research institutions in Canada for startups, with University of Calgary responsible for 21 of 104 startups across all Canadian research institutions.
- Canadian Natural Resources, Imperial Oil Ltd, and Suncor created the Oil Sands Pathway to Net Zero with the goal to achieve net zero greenhouse gas (GHG) emissions from oil sands operations by 2050.

- For the second year in a row, Calgary set a record for venture capital investment with 66 total venture capital deals in 2021 totalling \$500 million.
- Calgary was one of the top 20 North American cities for hiring affordable talent and ranked as one of the top 100 emerging tech Startup ecosystems in the world according to the Global Startup Ecosystems Report (GSER).
- The Live Tech. Love Life. social media campaign saw a total of 30.8 million impressions and more than 400k impressions on the @LiveTech_LoveLife Instagram account. Through the website, 19 stories were posted throughout 2021 featuring Calgary tech companies.
- The Platform Innovation Centre was completed.
- The Life Sciences Innovation Hub (supported by OCIF) at the University of Calgary reported a tenant capacity of 94.7%, with plans to add 6 additional labs over the next 5 years.
- Alberta IoT helped nurture and expand 45 Calgary companies in the Internet of Things space through their Fast Track program in 2021. One of Alberta IoT graduates, PCC Integrate Inc, was presented with Most Innovative PropTech Solution Award during the IoT PropTech Summit.
- Harvest Venture Builder launched a \$14M venture capital fund with the addition of Harvest Venture Partners, an early-stage venture capital firm to help pre-scale founders of fintech companies in the prairies.
- The tech sector in Calgary grows with local companies such as Neo Financial raising \$64M Series B funding round securing a total of \$114M in funding in two years. Neo Financial moved into a new 49,000 sq. ft. space in downtown Calgary.
- Benevity acquired Switzerland based Alya allowing Benevity to expand its global presence.

PLACE

- The Climate Resilience Strategy underwent an extensive update in line with the climate emergency declaration with the drive to achieve net-zero by 2050.
- The Alberta Energy Transition study was published in 2021 and found that pursuing a net-zero future could potentially create 170,000 new jobs and contribute up to \$61 billion to Alberta's GDP by 2050.
- Startup Genome's 2021 Global Startup Ecosystem Report: Cleantech Edition calls Calgary an "Ecosystem to Watch" in North America and one of the Top 30 of 280 cities worldwide.
- The Green Line Light Rail Transit (LRT), the largest infrastructure project to ever be undertaken in Calgary's history received approved provincial and federal funding.
- Chinook Blast, Calgary's winter festival, saw 391,903 people in attendance in it's inaugural year across the various programming offerings over the three-week event.
- City Council approved the Greater Downtown Plan and committed \$200 million in funding to execute the strategy in addition to creating a \$100 million office conversion incentivization program.
- The Downtown Strategy Champions Network (formerly the Leadership team) and Working Group continue to work to transform and reinvent downtown, including office to residential conversion.

- Significant infrastructure projects continue to make progress to revitalize Calgary's city centre including the Glenbow Museum, Arts Commons, and the BMO Convention Centre.
- Keystone organizations within the city are attracting world class leadership talent contributing to Calgary's arts and culture scene and livability.

BUSINESS ENVIRONMENT

- Amazon Web Services (AWS) established a Data Center Region in Calgary that will be one of two in Canada available to millions of AWS customers worldwide.
- Progress was made on the YYC Calgary International Airport - Banff Rail (CABR) project that will provide sustainable transportation to passengers from Calgary to the Banff railway station. A detailed memorandum of understanding (MoU) was signed in July 2021 between Invest Alberta, Alberta Transportation and Canada Infrastructure Bank (CIB).
- A memorandum of understanding (MOU) was signed with the Alberta Government and Prairie Link to move ahead with the proposed high speed rail link between Calgary and Edmonton.
- YYC Air Cargo experienced record growth in 2021.
- The YYC Airport Authority Working closely with the Public Health Agency of Canada (PHAC) and developed a dedicated testing centre that safely accommodated more than 2,000 guests a day.
- Conversations to explore what a successful Innovation District could look like for Calgary have been moving forward, with virtual focus groups and community engagement workshops hosted at the Platform Innovation Centre undertaken to explore.
- The Film and Creative Industries sector has received support from the provincial government, with the removal of the \$10 million per project tax cap for productions, creating \$500 million of economic impact.
- Calgary was ranked 10th in MovieMakers assessment of best places to live and work as a moviemaker in 2021. This demonstrates the continuous and collaborative work between the Calgary Film Commission and the Business and Local Economy Team at the City of Calgary to make Calgary a great film friendly city.
- The City of Calgary continues to work closely with organizations pursuing urban agriculture to streamline the development process.
- The City continued the streamlined patio process and fees continued to be waived and feedback has been collected to support a more consistent standardized process in 2022.
- The City's Living Lab program, for those looking to test and try new ideas and products in a real-life environment, had 50 projects in 2021, a huge gain from nine in 2020 considering continued uncertain times due to COVID-19.

TALENT

Calgary in the New Economy sets the talent-specific goal as **Calgary being Canada’s destination for talent**. The ability to develop, attract, and retain talent of all experience levels and, especially, in specific high-demand skills is imperative for long-term prosperity. This focus area concentrates on traditional methods of talent development, attraction, and retention and innovative new ways to mobilize organizations and businesses such as the Calgary Board of Education, Calgary Public Library, education-focused startups, reskilling programs, post-secondary institutions (PSIs), and individual businesses to create a city in which learning is innate and curiosity is expected.

2021 Progress

OUTCOME 1: NURTURE AN ADAPTIVE ENVIRONMENT THAT EMPOWERS AND DEVELOPS LIFE-LONG LEARNERS

2021 key activities

Following a successful two-year pilot program, Future Skills Centre (FSC) invested over \$5 million into the EDGE UP 2.0 program with Calgary Economic Development providing training for 320 displaced oil and gas professionals for careers in tech. EDGE UP (Energy to Digital Growth Education and Upskilling Project) is a multi-stakeholder program launched in Calgary in 2019 to test new approaches to skills development for mid-career workers for technology jobs being created in all sectors of Calgary’s economy. The program targets professionals displaced from the structural change in the oil and gas sector. Students are trained for in-demand information technology jobs including data analysts, full-stack software developers, information technology project managers, cybersecurity analysts, UI/UX Designers, and digital marketing. Many graduated students have provided testimonials and speak fondly of the program. They attribute their successes and ability to find new jobs to the education and training they received in the program.

Notably, one of the biggest 2021 EDGE UP success stories was the public announcement made in November 2021 on the collaboration between EDGE UP, Mount Royal University and Amazon Web Services (AWS) following AWS’s announcement that they will be expanding to Calgary through the establishment of a Data Center Region. Starting in 2022, AWS, Mount Royal University and EDGE UP will work together to deliver the AWS re/Start program with the EDGE UP 2.0 program.

2021 also saw The City of Calgary partner with Microsoft, Calgary Board of Education, and Calgary Public Library to launch a design challenge using Minecraft: Education Edition. The objective was to reimagine public spaces in Calgary’s downtown to strengthen the community and enrich the lives of Calgarians. The challenge, “Level Up, Calgary!” was the first K-12 design challenge of its kind in Canada with more than 12,000 students participating. Winners were announced in one of four division categories with winners representing Dr. E.W. Coffin School, Captain John Palliser School, Dr. Gordon Higgins School, and Centennial High School. The City is now exploring ways to recreate student designs within the downtown through either real-world examples or visual representations.

Progress and performance measurement

KPI #1: Secondary education enrollment rates

Core educational systems provide Calgarians with strong learning “backbones” to support the continued development of skills throughout their lives. Alberta’s current K-12 education system performs well globally according to Program for International Student Assessment results which is a standardized global education test. Calgarians with solid foundations of enabling skills that empower adaptability and lifelong learning form the primary building blocks of Calgary’s talent pipeline.

Program	2020/2021 School Year Enrollments
All (public and other)	Over 182,000 enrollments across all Calgary schools ¹⁸
Public school division	122,451 enrollments

KPI #2: Post-secondary enrollments and completion rates

Post-secondary institutions (PSIs) play important roles in enhancing Calgary’s workforce and talent landscapes. PSIs currently provide Calgarians, as well as national and international students, with opportunities to develop advanced technical skills and domain competencies. Important research and innovation activities at Calgary’s PSIs contribute to local skills development and the city’s attractiveness to global talent. The scale of Calgary’s local talent pipeline is reflective of the accessibility of post-secondary education and the volume of learners completing programs.

Program	Enrollments¹⁹	Change from 2019	Completions	Change from 2019
All	65,489 full-load equivalents	1.5% increase	18,150 full-load equivalents	5.5% decrease
	8,459 international student full-load equivalents	17.9% increase	2,510 international student full-load equivalents	21.4% increase
	2,255 Indigenous full-load equivalents	4.5% increase	600 Indigenous full-load equivalents	1.5% increase

¹⁸ City of Calgary Open Data Set, <https://data.calgary.ca/Demographics/School-Enrolment-Bar-Chart/7b64-duti>.

¹⁹ This data is taken from the Government of Alberta’s Open Data dataset titled ‘Full Load Equivalent (FLE) Enrolment within the Alberta Post-Secondary Education System’. Typically, this data is released on a one-year lag so that data for the previous school year ending in March is released in January of the subsequent year. However, to date the 2021 data has yet to be released, so the most recent year that we can present data for 2020 and was released in January 2021.

KPI #3: Participation in skills-development offerings with ecosystem partners

PSIs are an essential contributor to an innovation ecosystem. They contribute to the development of talent through various programs and courses in a variety of areas. PSIs are increasingly focused on developing pathways to startup formation and commercialization of technologies. Traditionally an advantage of research universities developing intellectual property (IP) for commercialization, now all types of PSIs make strategic corporate partnerships or have entrepreneur development courses/programming to serve students.

Innovate Calgary, for example, is the central incubator for the University of Calgary. It plays a crucial role in supporting the commercialization of research at University of Calgary, providing programming, education, and funding opportunities. They work closely with faculty, staff, researchers, and students to take an idea or research findings and use them to create economic and/or social impact.

Growing a technology company or creating innovations requires a unique way of thinking and problem solving, often referred to as an entrepreneurial mindset. PSIs are a primary support in fostering an entrepreneurial mindset in the student population, not just through courses but additional programming available on campus – curricular, co-curricular, and extra-curricular.

Extra-curricular opportunities like Mount Royal University's [BounceBackYYC](#) Hack-a-thon allow students an opportunity to work on diverse, multi-disciplinary teams to find creative solutions to real world issues. This hack-a-thon, inspired by the Greater Downtown Plan and The City's initial \$200 million commitment to resource the Greater Downtown Plan, asked students to consider how the \$200 million should be spent in one of three challenge tracks: safety, transportation & transit, and vibrant community. App-based solutions were common among the winning teams with one team proposing an app that would highlight safe and potentially unsafe walking routes through downtown, and another proposing an app that would make it possible for downtown commuters to connect with residents to sublet cheaper parking.

As part of 150 Startups - a multi-year Alberta-wide initiative designed to build a more resilient economy and expand Alberta's entrepreneurial capacity by creating more first-time entrepreneurs at all 26 of Alberta's publicly funded colleges, universities, and polytechnics – the initiative, Founder Fridays was launched in April 2021. Founder Fridays occur every first and third Friday of the month bringing together Alberta's entrepreneurs, mentors, ecosystem builders, and service providers. The first event of the month focuses on a fireside chat with an author of the book of the month, a copy of which is also sent out to all participants. In the second event of the month, all participants are invited back together to discuss how the book's content can be applied to Alberta's tech sector.

Entrepreneur Development Courses	Programs/Courses	Students Participating
Platform Calgary ²⁰	11	924
SAIT ²¹	Number of SAIT's School of Business Entrepreneurship courses offered: 1	Enrollment in SAIT's School of Business Entrepreneurship courses: 175 Enrollment in SAIT's School of Business capstone course: 203
Ambrose University	1 entrepreneurship course	16 students
Bow Valley College	Program:	# Participants:
	Sales Playbook Program	16 companies; 31 individuals
	Innovation Rodeo 2021 (virtual)	362 participants registered (253 for the whole week)
	Founder Fridays (bi-weekly virtual event)	955 attendees total (between April–December 2021)
Mount Royal University	Type of Program:	# Participants:
	Students enrolled in Innovation and Entrepreneurship courses	1370 students ²²
	Curricular: 3	106 students ²³
	Co-curricular: 6	100 ²⁴

KPI #4: Vibrancy and ecosystem

To further develop the concept of a new learning system, a broad range of community partners, facilitated by Calgary Economic Development, established the LearningCITY Project. Debuted in June 2020, through the *Calgary on the Precipice* report, with a mandate to explore how a city-wide learning system could be re-envisioned to deliver on the priorities defined in Calgary's economic strategy. This project has five pillars: transition to an open learning system, transition to purpose-based learning, commit to universal experiential learning, develop enabling competencies, and invest in city-level structural capital. As there was no current ecosystem established for learning systems, development of the LearningCITY framework was key to being able to build further projects in alignment with it and have partners anchored in the project's pillars.

Calgary recognizes that it needs to become a city that learns and adapts faster and better than others, to do this requires a common language that can be adopted within the ecosystem as a foundation to develop adaptability. The Competencies for Life (C4L) model,

²⁰ Reflects data for 2020 clients, this is the most recent data available at the time of this report.

²¹ SAIT's School of Business entrepreneurship courses.

²² This reflects students enrolled in at least one Innovation and Entrepreneurship course, regardless of program of study for the 2021/22 year.

²³ Students enrolled in a 6-course minor or a 10-course concentration in Innovation and Entrepreneurship for the 2021/22 year.

²⁴ Total students engaged in co-curricular Innovation and Entrepreneurship programs during the 2021/22 year.

introduced following the City Council's approval of the LearningCITY community pilot in March 2021, was created to address this. The C4L project piloted the introduction of a unified set of 25 enabling competencies anchored in six clusters: problem solving, self-reliance, collaborating, communicating, core literacies, and core workplace skills. Led by a team of students from a range of postsecondary institutions, the project was supported by 10+ diverse community partners, including the Calgary Public Library, the Genesis Centre, and the Centre for Newcomers. Going forward, the C4L model will be embedded through future talent ecosystem projects, and it will be encouraged for partners within this area to adopt and integrate the insights from this project.

2022 actions planned

Today's talent market is highly inefficient because it lacks both a shared understanding of the currency being exchanged and verification of these competencies. The introduction of Community Microcredentials (CMCs) was a primary recommendation from the 2021 LearningCITY pilot to fill a void currently identified in the talent development system. CED is collaborating with Mount Royal University and the Calgary Arts Development Authority in the design and testing of CMCs. Starting in January 2022, Mount Royal University, through Professor Dr. David J. Finch, dedicated 2 capstone marketing classes to ideate on various CMC models within high-demand areas associated with marketing, communications, and visual design. The results from these valuable student projects will inform a pilot that will run to October 2022 and can be further tested with industry and scaled to include other sectors that would benefit from the acceptance of CMCs.

OUTCOME 2: FOSTER CONNECTIONS BETWEEN EMPLOYERS, CITIZENS, AND SKILLS PROVIDERS TO CREATE DIVERSE AND UNIQUE LEARNING OPPORTUNITIES

Relevancy is a powerful driver of decisions with respect to skills development and opportunities. As careers become less linear and more integrated with lifelong-learning, the lines between prioritizing material outcomes and skills-development are increasingly blurred. During Calgary Economic Development's *New Economy LIVE* series in September 2021, this topic was front and center. Mount Royal University's Dr. David Finch, professor in the Bissett School of Business, spoke of the need for enabling competencies (transferable skills) instead of continuing to focus heavily on job-specific training. Ensuring Calgary's employers and skills providers are collaboratively offering relevant opportunities, that enable the development of a suite of soft skills, will help develop and attract top talent.

2021 key activities

Calgary's PSIs acknowledge the importance of WIL opportunities and are committed to the ambitious goal of providing 100 per cent of students with meaningful WIL opportunities before 2030.

"Work-integrated learning is a form of curricular experiential education that formally integrates a student's academic studies with quality experiences within a workplace or practice setting. WIL experiences include an engaged partnership of at least: an academic institution, a

host organization, and a student. WIL can occur at the course or program level and includes the development of student learning objectives and outcomes related to: employability, agency, knowledge and skill mobility and life-long learning.” (source: [CEWIL Canada, 2021](#))

In 2021, Calgary Economic Development began working with Calgary’s seven PSIs to design a regional pilot project to make WIL more accessible to Calgary’s employers and provide more WIL opportunities for learners; reducing barriers for employers and learners. Consistent engagement with these partners is crucial to the success of the program. Through conversations and workshops, CED has identified key areas that need to be addressed through this project. These include clarity around the definition of WIL, ease of navigation between WIL programs and tools & resources to support parties before/during/after WIL placements. Other areas include employer connections, technical developments, funding access, support capacity and system equity. Another major portion of this year was dedicated towards securing funding for this pilot project and establishing project scope with the technology partners, Magnet & ORBIS.

Under SAIT’s new strategic plan, with a focus on supporting students, employees and industry partners in a new way of learning and doing, the School of Information and Communications Technologies merged with the School of Advanced Digital Technology (SADT) to ensure their learning community has the digital literacy skills to continue succeeding. SADT was designed to address the significant shortage of tech talent in Calgary and this move addressed industry partner needs through rollout and evolution of in-demand tech programming. Through their tech bootcamps they were able to deliver on 112 experiential learning placements for their students and had 456 students in industry practicums. They are working towards a goal of 15,000 graduates through the school over five years.

Progress and performance measurement

KPI #1: Enrollment in WIL/Experiential Learning offerings

Enrollment in learning activities across Calgary’s skill-development ecosystem is indicative of the desirability of the offerings available. As increasingly mobile talent pursues opportunities around the world, the choice of talent to participate in Calgary-based learning opportunities demonstrates the global competitiveness and attractiveness of Calgary’s talent development capacities. In Calgary Economic Development’s 2021 Tech Talent Survey, 135 programs with tech-related course offerings were surveyed to gain insight regarding the tech talent ecosystem.

	2021	
Tech Training Ecosystem²⁵	Enrollments	Completions
Post-Secondary Programs	7,348	2,696
Non-Post-Secondary Programs	2,245	2,152

²⁵ This data is from Calgary Economic Development’s Tech Talent Survey and only reflects a small snapshot of the ecosystem with 135 programs reported on.

KPI#2: WIL/Experiential Learning offerings within the Tech Talent Ecosystem

As highlighted above, PSIs are committed to working toward the goal to ensure all students have at least one meaningful WIL/experiential learning opportunity before they complete their program. These opportunities are crucial in providing students with skills that prepare them for life post-graduation. They allow for real-world application of skills they’re learning as part of their program.

The data below was retrieved from the 2021 Tech Talent Survey that was completed by 135 programs. It must be noted that some programs did not report if they do or do not provide WIL opportunities.

	2021	
Programs ²⁶	WIL Program Opportunities	WIL Participant Enrollments
135 surveyed in the Tech Talent Survey	86 responded to having a type of WIL opportunity	1,980

2022 actions planned

Developing a WIL pilot project remains a priority for Calgary Economic Development in 2022. All PSIs are supporting this work by providing their insights and learnings around best-practices. A centralized digital portal will make it easier for employers to create and share a higher volume and variety of WIL opportunities for students. It will be particularly beneficial for small to medium sized businesses that currently do not have the capacity to undertake the intricacies of WIL. For PSIs, they can engage with employers, funders, community stakeholders and other WIL providers through a streamlined system. Administering the digital portal will be a Secretariate that will act as support staff for the PSIs for the purposes of marketing, employer engagement & support and practice development. The launch of the WIL digital portal and the Secretariate will enable more comprehensive tracking of KPIs related to WIL participation and the global attractiveness of Calgary’s skills-development offerings. While an official launch date is yet to be announced support from multiple orders of government and an anonymous family foundation allows the project to move forward on what is increasingly recognized as a critical part of preparing the workforce for jobs of the future.

OUTCOME 3: BE GLOBALLY RECOGNIZED AS A PLACE FOR PEOPLE WHO WANT TO SOLVE GLOBAL CHALLENGES

Calgary’s civic and community identity and brand are powerful drivers of whether skilled Calgarians decide to develop their entrepreneurial ideas at home, and on the flipside - if global talent can see Calgary as their home. The stories Calgarians tell each other and share with the

²⁶ This data is from Calgary Economic Development’s Tech Talent Survey and only reflects a small snapshot of the ecosystem with 135 programs reported on, not all of them offering WIL programming.

world reflect the collective values and aspirations of our city and its citizens. The alignment and resonance of these narratives with the desires and interests of global talent paired with objective qualifiers of Calgary's competitiveness as a global city, reinforce Calgary's status as one of the world's top destinations for skilled and entrepreneurial people.

2021 key activities

For its second year on the list of the CBRE Tech Talent Report, Calgary improved its ranking by six spots, bringing it up to 28 out of 50. Calgary also gained more talent in this sector than it did last year. 2020 reported a "brain gain" of 2,643 tech talent workers, that number increased by almost 1,000 in 2021²⁷ further showcasing the growth of tech in Calgary.

With restrictions around in-person gatherings, job fairs continued to happen virtually. Calgary Economic Development and Tech West Collective teamed up to host the Live Tech. Love Life. career fair in September. With representation from 48 companies within Calgary, it was a great opportunity to showcase the diversity of opportunities available in the city for local and non-local talent alike. In 2021, Calgary Economic Development also participated in 21 other job fairs and talent attraction events that provided exposure for nearly 100 local companies to engage and acquire new talent.

The attraction of internal companies and their talent is proof of Calgary's increasingly global recognition. Notable examples in 2021 include Infosys and Mphasis. Infosys, a global leader in next-generation digital services and consulting who have been expanding into Canada announced that as part of their expansion, would be bringing 500 jobs to Calgary over the next three years, doubling its Canadian workforce to 4,000 employees by 2023. Not long after that story broke, Mphasis, another major Indian tech services firm went public with the strategic partnership that they have formed with the Government of Alberta and the University of Calgary. The partnership will see the development of the Quantum City Centre for Excellence housed at the University of Calgary which will strengthen the development of the quantum computing ecosystem within Calgary.

Calgary Economic Development's annual external perceptions research found that 77% of business leaders from several national and international jurisdictions would consider expanding to Calgary, and 72% agreed that Calgary is a place that develops and attracts highly skilled people and are increasingly optimistic about the opportunities in Calgary²⁸. Improving perceptions of Calgary is critical to attracting and retaining talent, companies, and capital to our city.

Through support from Colleges and Institutes Canada (CICan), SAIT awarded \$500,000 for Study Abroad programs to support Indigenous and low-income students to pay for study trips to enhance their learning. Despite the pandemic and travel restrictions, 3,210 international students were enrolled at SAIT, studying either on campus or remotely.

²⁷ Brain gain was measured by looking at the difference between the number of tech degrees and the number of tech jobs.

²⁸ Markets surveyed for this study were: Vancouver, Toronto, Montreal, Waterloo/Kitchener, Ottawa (Canada), Austin, Houston, Denver, Seattle, Silicon Valley (United States), London (United Kingdom)

Progress and performance measurement

KPI #1: Population change from migration

Disruptive relocations are big decisions indicative of the belief that the destination offers a worthwhile opportunity. Calgary's ability to draw people from across Canada and around the world is reflective of the city's reputation of offering desirable lives and livelihoods. While pandemic-related international travel restrictions have impacted the volume and pace of physical migration of individuals, Calgary's net population has continued to grow even during uncertain times. This number is expected to grow as the affordability of Calgary relative to major Canadian city peers becomes more widely known.

Migration	2021	2020	2019
Net population change²⁹	14,467	30,391	30,898
Intra-provincial³⁰	2,892	3,313	2,972
Inter-provincial³¹	-3,347	709	-103

KPI #2: Educational attainment of migrants (International)

The education and skills that people bring to Calgary are reflective of their potential to contribute to the city's economic and innovation systems. Higher levels of education also typically correlate with an individual's global mobility. The educational attainment of people moving to Calgary is indicative of the potential being added to the city's workforce and the attractiveness of the city as a global destination. This data is based on the most recent numbers available from the 2016 Canadian census. With the most recent Canadian census conducted in 2021, updated data will become available in 2022 and will be tracked and updated for next year's report.

Entry Category³²	Secondary or less (per cent)	Post-secondary (per cent)	Post-graduate (per cent)	Level not stated (per cent)
Economic (55 per cent)	10	20	4	66
Sponsored Family (32 per cent)	39	48	12	2
Resettled Refugee and Protected Persons (12 per cent)	68	25	4	2
Other (2 per cent)	47	42	3	8

²⁹ Statistics Canada. Table 17-10-0135-01 Population estimates, July 1, by census metropolitan area and census agglomeration, 2016 boundaries.

³⁰ Statistics Canada. Table 17-10-0138-01 Components of population change by economic region, 2016 boundaries.

³¹ Statistics Canada. Table 17-10-0138-01 Components of population change by economic region, 2016 boundaries.

³² Data presented in this table is from a custom dataset Calgary Economic Development purchased from Immigration, Refugees and Citizenship Canada for a one-time study conducted in 2020.

KPI #3: Employment rate

Globally desirable talent develops and is attracted to opportunity-rich environments. The proportion of Calgarians employed is reflective of the city's talent development capacity. The inclusive participation of all citizens in the city's job market is indicative of the equality and resiliency of Calgary's economic and social fabrics. The increases in employment rate across full-time and part-time employment demonstrate a shift towards recovery in 2021.

Characteristic	Employment Rate ³³	Change from 2020	Change from 2019
Status	Overall, both sexes ³⁴ : 64.3%	2.4% increase	5.6% decrease
	Full-time: 81.4%	1.6% decrease	0.6% decrease
	Part-time: 18.6%	7.4% increase	2.5% increase
Gender	Overall:		
	Females: 60.8%	3.2% increase	5.1 % decrease
	Males: 68.0%	1.8% increase	6.0 % decrease
	Full-time:		
	Females: 43.4%	0.5% increase	0.4 % decrease
	Males: 56.6%	0.4% decrease	0.3 % decrease
	Part-time:		
	Females: 68.0%	5.3% increase	3.3 % decrease
Males: 32.0%	9.6% decrease	6.3% decrease	

2022 actions planned

Calgary continues to see the attraction of research centres of excellence in 2022. In January, global consulting firm EY announced that they would be opening their first Canadian based finance centre of excellence in Calgary. This hub will bring 200 jobs to the city over the next three years, with 50 new hires happening immediately. Attracted by Calgary's affordable cost of living, well-educated workforce, and quality of life, this is another vote of confidence in Calgary's ability to diversify its economy.

Live Tech. Love Life. is going strong in 2022 with a campaign refresh and a focus on inviting talent from across Canada (Waterloo, Toronto, and Vancouver), and the United States (Seattle, and San Francisco/Silicon Valley) to build something great here. Along with a campaign the Live Tech. Love Life. career fair will be back in the fall of 2022. Live Tech. Love Life will also continue to showcase the amazing work being done right here in Calgary through its local campaign to continue challenging and expanding perceptions of what is possible in Calgary.

³³ Statistics Canada. Table 14-10-0378-01 Labour force characteristics, three-month moving average, unadjusted for seasonality.

³⁴ Statistics Canada only reports data for "Both sexes", "Males", and "Females".

In 2022, Calgary Economic Development has already participated in 11 talent attraction events with some highlights including the West Coast Virtual Fair, University of Calgary Winter Career Fair, and Tech Talent Canada Job Fair to name a few. Responding to feedback from local companies' desire to increase their talent diversity, there was a focus on securing a presence at events such as the Indigenous Job Fair, Immigrant Services Calgary Job Fair, and Women in Technology's Hackathon events. CED is planning to participate in 11 events in 2022 Q2, and on an average 9-10 events per quarter for the remainder of 2022. These talent activations each month involve companies like TELUS, ATTAbotics (OCIF recipient), Helcim, SkipTheDishes, Shaw, Mphasis, Neo Financial, and many other local companies to support and accelerate their talent attraction efforts. With COVID-19 restrictions reduced in many countries, CED is also planning to travel internationally to countries like the USA, UK, India, Portugal, and more this year all to promote Calgary as Canada's destination for talent.

INNOVATION

As we embrace advanced technology and innovative thinking to create solutions to some of the world's greatest challenges in energy, agribusiness, transportation, life sciences/health, and social services, Calgary's innovation ecosystem and its growth will play a critical role. The Innovation focus area of *Calgary in the New Economy* sets out a goal **to be the leading business-to-business (B2B) innovation ecosystem in Canada**. The Global Startup Ecosystem Report (GSER), released during London Tech Week, ranked Calgary as one of the top 100 emerging tech startup ecosystems in the world. As a city of innovators with a long history of serving large industrial sectors, Calgary is perfectly positioned to take advantage of the job creation and economic opportunities arising from the growing community of entrepreneurs and innovators.

In 2021, Calgary Economic Development worked with RSM Canada to better understand how Calgary's innovation ecosystem can rapidly evolve and leapfrog its capabilities and maturity. RSM Canada assessed existing ecosystem assets alongside interviews with key innovation players in Calgary and conducted a comprehensive jurisdictional benchmarking of five global innovation hubs along the innovation ecosystem maturity scale to identify key policies, infrastructure, and supports that accelerated the ecosystem in those cities. The five global innovation hubs were: Toronto-Waterloo, Montreal, Austin, Helsinki, and Israel.

One of the most important findings from the research was building an innovation ecosystem requires the support and collaboration of many key players. Informed by findings from this work, the scope of the innovation focus area of the economic strategy will incorporate priorities related to corporate investments into research & development (R&D), real-world application of PSI R&D, and attraction and development of innovative and creative talent.

2021 Progress

OUTCOME 1: INCREASE THE NUMBER OF EARLY STAGE AND GROWTH STARTUPS

Growing the number of innovative companies in Calgary depends on the creation and growth of new startups. These companies require many inputs at the various stages of growth including programming, office/lab space, mentorship, R&D capacity, industry connections, talent, market access, and more that are provided by support organizations. Calgary's entrepreneurial ecosystem is known for having a strong network of highly connected support organizations with a growing number of global connections.

2021 key activities

In 2021, the University of Calgary was the top startup creator amongst research institutions in Canada based on the 2020 Canadian Licensing Activity survey. University of Calgary, supported by Innovate Calgary, was responsible for 21 of 104 startups across all Canadian research institutions. The goal is for Innovate Calgary to support more than 100 startups within the next five years.

Accelerators and incubators are an important part of the growth of the innovation ecosystem. These organizations provide access to much-needed supports, programming, and access for entrepreneurs and innovators who have an idea, are looking to grow an idea, or want to scale-up an already established business or idea. In 2021, OCIF, in partnership with several other funding organizations, PrairiesCan, Alberta Innovates, and the Government of Alberta, has supported several accelerators and incubators contributing to the significant growth over the past couple of years.

In March, OCIF posted a request for proposals (RFP) for Accelerators and Incubators for Calgary's Innovation Ecosystem. Plug and Play Alberta was the first entity selected to address an identified scale-up gap in our innovation ecosystem by helping local tech companies grow while also attracting global investment to Calgary. Plug and Play runs programs globally to provide a platform for major organizations and high-quality startups to connect, collaborate and co-invest with strategic partners. Plug and Play's Alberta office will deliver programs in both Calgary and a satellite office in Edmonton and work to bring ventures from around the world to Alberta.

As part of the same RFP process, OCIF will contribute up to \$3 million over five years to support Creative Destruction Lab-Rockies' (CDL-R) unique program for startups commercializing transformational technologies across industries. The Government of Canada, through PrairiesCan, is also investing more than \$1.8 million in CDL-R, which further speaks to how important CDL-R has become within the innovation ecosystem. Their Alberta alumni companies have raised well over \$200 million in capital and have created hundreds of jobs. CDL-R grew from a seed investment of just over \$4 million from Calgary philanthropists in 2017 and continues to support startups in the tech, agriculture, and energy sectors thrive.

OCIF also launched a Fund Manager RFP to seek qualified firms to manage a new or existing fund, leveraging other investors to identify and invest in pre-series A, seed-stage technology-focused entities in Calgary. The fund manager creates opportunity for a larger pool of investments which in turn will support local ventures. As part of this process, Accelerate Fund III by Yaletown Partners was selected. OCIF's contribution of \$6 million is expected to generate \$12 million in investments into Calgary-based companies, including unlocking angel capital. Leveraged dollars are a critical component of advancing the Innovation focus area as they provide companies with the opportunity to tap into their potential and amass unbounded success.

The51's not-for-profit organization, Movement51, will receive up to \$333,000 over two years from OCIF to support the graduation of 165 Calgary-based women-identifying individuals through its [Financial Feminism Investing Lab \(FFIL\)](#) – a six week program that will provide participants with the terminology, capability, and confidence to activate their capital to drive innovation and advance the economy through a gender-aware lens. With over 30 ventures funded and \$17 million invested into women-led business, The51 continues to grow.

OCIF committed \$1 million to support the acceleration of promising Calgary-startups in the Agtech sector through Thrive's Canadian Accelerator over two years. Thrive has committed to creating three jobs and supporting four Calgary companies. Leveraging support from OCIF, Alberta Innovates, and the Government of Alberta, SVG | THRIVE Canada will establish a full innovation and investment platform that

will support early-stage Canadian startups from all areas of the food supply chain whose technologies drive towards a more efficient, sustainable, and secure agriculture future.

OCIF and PrairiesCan each announced funding of up to \$1 million to support Endeavor Canada’s launch and operations in Calgary’s growing entrepreneurial and innovation ecosystem. Endeavor identifies founders with the potential to participate in the organization’s competitive International Selection Panels. If selected, Endeavor Entrepreneurs benefit from a global network, a peer-to-peer community, and open-door access to talent, markets, and capital.

Progress and performance measurement

KPI #1: Number of technology companies in Calgary

A total of 912 tech companies were included in the butterfly collection³⁵, nearly 200 more companies from the same time last year. Of these, 527 were categorized as “core tech companies” qualified as having five or more employees, and 385 were classified as startups with one-to-four employees. The one-to-four-person company category or “startups” signifies a growing ecosystem as a certain level of failure is to be expected. Thus, a larger pool of startups is needed to sustain year over year growth. These 912 identified companies account for approximately 20,510 jobs. The number of companies changes constantly, and the data reported here is as of January 2022. While the trend year over year is proof Calgary’s startup scene is growing, there is always more work to do to continue this trajectory.

Foreign attraction of established companies and adding new early-stage companies to the ecosystem is another source of growing the number of tech companies in the local market. Both Calgary Economic Development’s Foreign Direct Investment (FDI) efforts and programs such as Startup Visa contribute to the overall increase.

Platform Calgary’s Startup Visa is a customized program that assists international growth-stage startups with integrating into the Canadian innovation community. The program is tailored specifically to meet the unique needs of each company and provides supports to scale in North America. 2019 saw much higher numbers than 2020 and 2021 largely due to COVID-19 and restrictions related to managing the pandemic.

³⁵ This data was collected by Zinc Ventures, A100, and Platform Calgary and is a Zinc Ventures prototype.

Indicators	2021	2020	2019 ³⁶
Total number of tech companies	912	721	686
Number of 1-4 employee companies	385	269	251
Number of 5+ employee companies	527	452	435
Calgary Economic Development company attraction (not including film/TV)	30	17	37
Startup Visa companies	5	6	37

2022 actions planned

The Platform Innovation Centre is set to have its grand opening in 2022, welcoming startups, entrepreneurs, and its partners to the downtown core. This will be a central location for entrepreneurs and tech innovators to access the supports they need for success. The centre, which is set to be home to over 70 tech and innovation partners, a diversity of partnerships with accelerators, investors, capacity builders, PSIs and more, allows for increased opportunity and potential for collaboration within Calgary’s innovation sector.

The federal government announced an investment of \$2 million into the Platform Innovation Centre in early 2022 and The City of Calgary is investing \$1.5 million for final fit out of the building. Along with this investment, the federal government announced over \$22.3 million in interest-free, repayable funding to 13 tech startups in Calgary. This announcement of funding is expected to create up to a thousand jobs.

Increased support and collaboration within the ecosystem have created opportunity for Platform Calgary to establish scholarships that will be awarded in 2022. The Digital Commercial Bank, Platform Calgary and Platform Calgary partners will launch the inaugural Calgary Fintech Award which is Western Canada’s first major fintech award distributing a cash award to three fintech startups looking to grow their business in the Calgary area. Additionally, Platform Calgary will be awarding 10 scholarships to grade 12 students in Calgary through The 10X Future Founders Scholarship which showcases high school individuals who are passionate about tech, innovation and entrepreneurship.

OUTCOME 2: LEVERAGE CLUSTERS AND ACADEMIC RESEARCH TO CREATE CANADA’S LEADING CORPORATE INNOVATION ECOSYSTEM

Large enterprises are creators, adopters, and customers of technology making their participation and leadership a critical component to a thriving innovation ecosystem. Established corporations play a major role in furthering innovation ecosystems when they are engaged as meaningful and collaborative partners. These relationships can offer the corporations access to the ecosystem and further their understanding

³⁶ 2019 data was reported in the summer of 2020. These values are over-stated due to not having regular data collection intervals (i.e., new structure and COVID-19).

and adoption of innovation and startup culture, while in return they provide access to mentorship (with industry expertise), capital (alignment to their investment strategy), pilot and commercial opportunities (make them your customer), and M&A opportunities (get acquired).

Corporations bring meaningful collaborative opportunities when partnering with PSIs and sponsoring research being done by people at the top of their field. Calgary and its PSIs have significant opportunities to deliver local technology and innovation solutions to large enterprises across the globe including those headquartered locally. In conjunction with this, our existing industries must continue to adopt digital technologies to remain competitive and globally recognized. Ideally, this becomes a symbiotic relationship where the startup ecosystem and corporate enterprise are partners and co-create innovation in the community.

2021 key activities

The Canada Research Chairs program invests up to \$311 million a year to both attract and retain some of the world's brightest minds. These individuals are focused on achieving research excellence in several academic fields including the natural sciences, social sciences and engineering. Over 40% of all research chairs are granted by the Natural Science and Engineering Research Council (NSERC). With about 798 NSERC Research Chairs filled across Canada, 10% can be found here in Alberta. Calgary universities hold 26 of those positions in areas such as space physics, nano sensing systems, and geomechanics, showcasing our PSI's breadth and depth of expertise in areas outside historically dominant sectors.

SAIT's Applied Research and Innovation Services (ARIS) is designed to bring industry partners together. With access to specialized labs and facilities, along with full-time research staff, it's equipped to support organizations take their products from concept to prototype. One of the winners of The City of Calgary's inaugural Mayor's Innovation Challenge was a team from ARIS's Centre for Energy Research in Clean Unconventional Technology Solutions (CERCUTS). The ARIS Battery Storage project uses a vanadium redox battery system and could lead the way to net-zero energy solutions and provide an additional revenue stream for the province.

As highlighted above, corporations are crucial to a thriving innovation ecosystem. A list of Canada's top 100 corporate research and development (R&D) for 2021 included four companies headquartered in Calgary.

1. Suncor
2. Canadian Natural Resources Ltd.
3. Imperial Oil Ltd.
4. TC Energy Corp.

In total, these corporations spent \$1,031,838 on R&D in 2020. While this is down from 2019 (\$1,487,423), most companies saw a drop in their R&D spending, likely in part due to the impacts of COVID-19. The only exception from that list would be TC Energy Corp, which saw a 12.1 per cent increase in spending.

Calgary’s oil and gas sector is actively investing in solutions for the net-zero economy. In 2021, the six largest oil sands producers: Canadian Natural Resources, Cenovus, ConocoPhillips, Imperial, MEG Energy, and Suncor, created the [Oil Sands Pathway to Net Zero](#). The alliance’s goal is to achieve net zero greenhouse gas (GHG) emissions from oil sands operations by 2050. This goal will be achieved through significant investment in clean technology R&D and the deployment of innovative recovery technologies and GHG reduction technologies.

Corporations also contribute to the innovation ecosystem through the creation of centres of excellence, where leading research is used to solve tough challenges. In 2021 Calgary saw multiple corporations invest in centres of excellence in the community: Mphasis’s Quantum Centre of Excellence; EY’s Financial Centre of Excellence; and Avatar’s Energy Transition Centre.

Progress and performance measurement

KPI #1: Digital transformation (DX) spend

“Digital transformation is the integration of digital technology into all areas of a business, fundamentally changing how you operate and deliver value to customers. It is also a cultural change that requires organizations to continually challenge the status quo, experiment, and get comfortable with failure.”³⁷ These can be internal teams focused on transforming their operations, products, or services through the application of digital technologies.

The International Data Corporation (IDC) Canada forecast that \$20 billion would be spent on digitalization and innovation across Alberta industries by 2024. Calgary Economic Development launched an interactive [Digital Transformation Dashboard](#) to share this important story.

Large Enterprise by Industry	Alberta DX Spend ³⁸	Recent Calgary Example
Life Sciences & Health	\$1.3 Billion (\$428 million in Calgary by 2024)	BioHubX, a not-for-profit biotech organization aiming to support early-stage science companies announced the opening of its space in Calgary following the commitment of \$1.4 million in federal funding from PrairiesCan.
Transportation & Logistics <ul style="list-style-type: none"> • Aerospace & Defense 	\$1.6 Billion (\$790 million in Calgary by 2024) Of the Calgary total, \$38 million is in Aerospace & Defense	Calgary headquartered WestJet Cargo and SmartKargo partnered to provide extensive digital solutions to enhance and transform the airline’s air cargo business and improve customer experience.
Agribusiness	\$684 million (\$246 million in Calgary by 2024)	Following the \$1 million partnership announcement between Olds College and TELUS Agriculture in December 2020, the Olds College Smart Farm initiative has since tested innovations such as connectivity and 5G solutions and field

³⁷ What is Digital Transformation: <https://enterprisersproject.com/what-is-digital-transformation>.

³⁸ Calgary Economic Development, DX Spend: https://www.calgaryeconomicdevelopment.com/assets/Reports/Research/ResearchStrategy-21_DXSpend_FlatSheet_Master_2Page_Web_FINAL.pdf.

		sensors in live conditions to better understand optimization of food production and yields.
Financial Services	\$1.5 Billion (\$609 million in Calgary by 2024)	In July of 2021, RBC announced the launch of its Calgary Innovation Hub with plans to hire 300 tech employees over the next three years.
Energy & Environment • Oil & Gas	\$5.8 Billion (\$2.3 billion in Calgary by 2024) Of the Alberta total, \$2.5 billion is in Oil & Gas	The Clean Resource Innovation Network (CRIN) committed to three large-scale up technology competitions with cumulative prize value of \$80 million. The three competitions were: <ul style="list-style-type: none"> • Reducing Environmental Footprint Technology Competition (\$50 million) • Low Emission Fuels and Products Technology Competition (\$25 million) • Digital Oil and Gas Technology Competition (\$5 million)

KPI #2: Public funding invested into the innovation ecosystem

Public funding catalyzes private investment and spurs innovation. Successful public funding mechanisms are often ones that utilize the expertise and engagement of the private sector to co-fund and create a multiplicative effect on investment. Other effective public investments are those made into infrastructure and facilities that can generate new companies, technologies, and talent (e.g. labs). Funding of activities in the ecosystem is another beneficial use of public dollars, as they can invest in grants and initiatives that support innovators and startups in ways that private investors may not.

August of 2021 was the official launch of a new development agency for the prairies – Prairies Economic Development Canada (PrairiesCan). This new agency serves entrepreneurs in Alberta, Saskatchewan, and Manitoba in growing businesses through access to capital, information and resources, and creating more jobs and opportunities in the prairies. Replacing Western Economic Diversification Canada, this new agency will allow for the unique needs of the prairie provinces’ innovation ecosystem to be better met.

Public Funding sources:	2021	2020
Opportunity Calgary Investment Fund (OCIF)³⁹	\$18.33 million committed: <ul style="list-style-type: none"> • Endeavor Global Canada, \$1 million • Thrive, \$1 million • Plug and Play, \$7 million • Yaletown/Accelerate Fund III, \$6 million • Creative Destruction Lab Rockies, \$3 million 	\$18.55 million

³⁹ The Opportunity Calgary Investment Fund Ltd. is a City of Calgary wholly owned subsidiary established to manage the Opportunity Calgary Investment Fund Reserve to create an environment in Calgary that encourages economic recovery and growth, help reduce the impact of the economic downturn, and capitalize on new opportunities.

	<ul style="list-style-type: none"> • Movement51, \$333,000 	
Alberta Innovates: <ul style="list-style-type: none"> • Regional Innovation Network Funding (RINs) • Digital Innovation in Clean Energy (DICE) Program⁴⁰ 	<ul style="list-style-type: none"> • \$4.32 million annually to the eight Regional Innovation Networks, with an increased contribution of \$3.53 million, equaling \$7.86 million for 2021 and 2022. • \$3 million investment was leveraged between March 1, 2020 and August 31, 2021 to support the completion of 17 DICE approved projects. This in turn “leveraged the private sector 4.5 times to create \$16 million of total project value for Alberta’s economy.” 	\$3.16 million to RINs
Prairies Economic Development Canada⁴¹	<ul style="list-style-type: none"> • Investment of \$1.8 million in Creative Destruction Lab-Rockies. 	
Emissions Reduction Alberta (2020/2021)⁴²	<ul style="list-style-type: none"> • Led four companies through the Innovation Support Pilot Program that raised \$31 million in investment. • Completed 8 projects worth \$69 million supported over \$330 million in new investment. 	\$58 million announced for natural gas innovations with \$155 million. \$150 million announced for projects that cut costs and emissions in Alberta
Government of Alberta Budget 2022⁴³	As part of the <i>Budget 2022</i> , the provincial government committed to: <ul style="list-style-type: none"> • \$171 million for PSIs for targeted enrollment expansions (add 7,000 seats province-wide) in the areas of technology, agriculture, financial services, and aviation. • \$23 million investment in Advanced Education through the Alberta at Work initiative; \$8 million will be allocated to expand reskilling and upskilling opportunities through new micro-credential based course offerings. • \$88 million over three years to enhance Alberta’s Investment and Growth Strategy <ul style="list-style-type: none"> ◦ \$73 million for implementation of the Alberta Technology and Innovation Strategy, with funding to accelerate commercialization of technologies in artificial intelligence and quantum science. ◦ \$15 million for a new rural investment attraction stream. 	

⁴⁰ Alberta Innovates: Digital Innovation in Clean Energy Program Guide: <https://albertainnovates.ca/app/uploads/2021/11/DICE-2.0-Program-Guide-2021-11-17-FINAL.pdf>.

⁴¹ PrairiesCan was created in 2021 and only investments made in Calgary-based organizations are listed in this Report.

⁴² Emissions Reduction Alberta Annual Progress Report: https://eralberta.ca/wp-content/uploads/2022/01/ERA_AnnualReport_Jan19.pdf.

⁴³ Government of Alberta 2022 Budget: <https://open.alberta.ca/dataset/6d0f1358-beb5-4bb7-8da1-a350a138039c/resource/36771cab-bee0-44b5-99ad-a03d88da653c/download/budget-2022-fiscal-plan-2022-25.pdf>.

	<ul style="list-style-type: none"> • \$13 million between 2022 – 2023 to support training and investment opportunities for Indigenous Peoples. • Increase lending capacity of Agriculture Financial Services Corporation to \$3.6 billion by 2024 to support growth of agri-businesses and value added agri-processors. 	
University of Calgary⁴⁴	<p>University of Calgary launched UCEED, a pre-seed and seed funding program for ventures in child health and general health. In its first year (June 2020-June 2021), UCEED:</p> <ul style="list-style-type: none"> • Committed \$1.95 million across 15 organizations. • Engaged 61 students. • Evaluated 130 companies. 	Launch of UCEED.

2022 actions planned

Following the 2021 CRIN announcement of \$80 million being dedicated to oil and gas technology competitions, CRIN has already announced several funding recipients in Q1 of 2022 for the three competitions. They have committed \$30 million to four projects for funding within the Low Emission Fuels and Product Technology Competition, \$4 million to be allocated throughout seven projects for the Digital Oil and Gas Technology, and most recently on March 9, 2022, \$44 million across 17 projects that will work to develop environmental footprint reduction technologies.

With a federal investment of more than \$2.1 million to fund the Energy Transition Centre in Calgary through PrairiesCan, Calgary is beginning to establish itself as a leader in energy transition. This hub is expected to support innovative clean energy development as well as support the economy through new business opportunities, R&D, and assist in commercializing technologies for industries. This collaboration between the University of Calgary, Innovate Calgary, and Avatar Innovations is expected to create 25 new small and medium sized businesses while also assisting 25 other companies to scale up their clean tech innovations over the next three years. PrairiesCan has also committed \$22.3 million to aid 13 Calgary tech firms in their pursuit to scale up and enter new markets (expected to create 1,000 jobs) and \$2 million to the Platform Innovation Centre to complete the new centre in downtown Calgary.

OUTCOME 3: GROW AND SUPPORT CALGARY’S TECHNOLOGY TALENT COMMUNITY

Access to capital continues to play a critical role in developing and nurturing a robust innovation ecosystem. The funding spectrum for innovation is broad and investment is essential at various stages of development. Funding from a variety of sources (including founders,

⁴⁴ University of Calgary UCEED Momentum Report: <https://www.ucalgary.ca/live-uc-ucalgary-site/sites/default/files/teams/402/2021%20Uceed%20Momentum%20Update.pdf>

friends and family, angel investors and family offices, government/corporate grants, crowd funding, debt/financing, VC, private equity (PE), and IPOs) can support an innovation ecosystem by providing necessary capital.

Capital, although a very important part of the puzzle, alone cannot grow and support the technology talent community. Programs and policies also need to align. The Alberta Advantage Immigration Program (AAIP), for example, is designed to support immigrant entrepreneurs in obtaining permanent residence status in Canada. The Accelerated Tech Pathway further support the immigration of those workers in the tech field. Platform Calgary has the Startup Visa program, as mentioned above, that supports talent that is ready to scale up their businesses in North America. Incubators, accelerators, and ecosystem support organizations are crucial in building additional capacity and skills.

2021 key activities

In 2021 Calgary VC deals were worth \$500 million, coming in fourth overall in the country with 66 total deals⁴⁵, the second year in a row for setting a record. 1,613 employees in total were supported by VC investment, the most being in ICT (1,137) followed by the talent in life sciences, cleantech, and agribusiness. This was Calgary's biggest year to date with 89 per cent of the VC money attracted to Alberta being in Calgary.

Calgary continues to be recognized as a city to watch for its technology-focused startups. During [London Tech Week](#), where the [Global Startup Ecosystem Report \(GSER\)](#), an influential report for business, policymakers, and the investment community, was released, Calgary ranked as one of the top 100 emerging tech startup ecosystems in the world, and second in Canada as an innovation ecosystem with the best "bang for buck" for the average amount of money raised by local tech startups. The city was also one of the top 20 North American cities for hiring affordable talent.

InceptionU is a skill development and re-skilling organization that supports talent development in both technical and essential (non-technical) skills that are needed now and in the future. In November 2021, they were the recipients of Start Alberta's Digital Talent Champion Award, presented by SAIT. This award recognized the outstanding work InceptionU is doing to develop the talent ecosystem and in turn support the growth of the innovation sector and diversification in Alberta. They offer a variety of programs and provide Essential Skills content to SAIT's School of Advanced Digital Technology.

Calgary Economic Development's Trade Accelerator Program (TAP) provides knowledge, tools, and connections to help businesses in Calgary's innovation ecosystem expand into new international markets. In 2021 TAP alumni established over 34 new international trade deals in markets ranging from the United States to Japan and created 81 new jobs. Of the 72 graduates in 2021, 22 were in tech including Goodlawyer and XSENSOR. Goodlawyer had a tremendous year of growth, hiring on eight new permanent staff and increasing their office space by 3,200 sq.ft. The team was also able to secure a \$1 million + pre-seed investment. XSENSOR had a busy year establishing

⁴⁵ Canadian Venture Capital & Private Equity Association (CVCA), Venture Capital Canadian Market Overview, 2021 Year-In-Review report.

partnerships to take its products to three new international markets – the U.S., the EU, and the Asia Pacific. They were also the recipient of the 2021 TAP Calgary Exporter of the Year award.

Progress and performance measurement

KPI #1: Private capital invested into Calgary companies

Private investors that take an equity position in a company, primarily angel investors, VC, and PE firms, take on a shared risk with the companies. These investments are a strong indicator of the health of the funding landscape as they represent the opportunity value to risk tolerance relationship. The frequency of funding and total funds contributed quantifies the amount of value or opportunity investors can obtain. As deal volume increases in Calgary, we will see capital deployed for market development, talent/hiring, and operations all of which contribute to improving the company and by association the local ecosystem.

The longer-term value comes from a liquidity event when the company achieves its “exit” and the value is paid out to the participating investors, including the founders. An exit can offer the founding team a literal exit from the company, and with a payout in hand they are often well positioned to restart their entrepreneurial journey in a new venture or reinvest their money as angel investors with founder experience. Unicorn status is the highest rank of exit available to a founder or company, occurring when the company valuation exceeds a billion dollars.

Investment Deals with Calgary Companies			
Indicators	2021	2020	2019
Number of deals	66 (#4 in Canada)	33 (#4 in Canada)	19 (#4 in Canada)
Dollars (Millions)	\$500	\$353	\$136

KPI #2: Velocity of companies - Performance of accelerators and programs

The velocity of companies, or the rate at which they progress through the phases of development, is largely supported by programming offered to companies at each stage. The performance of those programs is largely measured by qualitative data, such as the number of applicants, the competitiveness of accessing and completing the program, anticipated outcomes for graduates, access to funding through the program, and quality of mentorship within the program. The demand for these programs in Calgary continues to rise and new capacity is becoming available to meet the need with growth in incubators and accelerators, some specialized in specific sectors.

Indicators	2021	2020	2019
Incubators & Accelerators	28	9	12 active ⁴⁶
Ecosystem Support Organizations	24	19	

⁴⁶ This data was tracked differently in 2019 and is not directly comparable to 2020 data.

KPI #3: Technology jobs in Calgary

In 2021 Calgary was ranked 28th of 50 for its tech talent in its second year on a CBRE North American ranking of top markets for tech talent. Calgary is one of three markets that saw the biggest climb in rankings in the year, rising six spots, and is currently ranked fifth in Canada out of seven Canadian cities that made the list. The total growth in tech occupations from 2015 to 2020 has been 17.9% with an additional 6.6% growth in non-tech occupations within the tech field in the same time frame. As Calgary continues to establish itself in the North American innovation ecosystem this ranking shows the accessibility of quality jobs and talent. With the increasing number of new companies and scale-ups Calgary is progressively showing it can compete with and sustain future growth. Despite concerns around “brain drain” in Calgary, the city actually saw a tech “brain gain” with almost 3,500 new tech workers⁴⁷.

Jobs in the tech sector aren’t exclusively for those working directly in tech, total jobs in non-tech roles equaled 78,600 with the highest concentration of roles being in administration and office support followed by business operations and finance. Over the past five years, however, marketing has seen a significant rise in roles in the sector.

Indicators	2021	2020
Number employed in tech occupations	46,700	42,500
Percentage of millennials	8.5% (since 2014)	14.3% (since 2013)
Diversity of tech workers	27% identify as female 73% identify as male	Not reported
Proportional share of tech workers	7.10%	5.70%

2022 actions planned

The Alberta Government has invested \$1.9 million in a program to support women entering and working in tech. The two-year research grant was awarded to Momentum Community Economic Development Society. Momentum will offer programming in this space through a partnership with Amazon Web Services AWS re/START. This is the first time in Canada that the skills development program aimed at preparing unemployed and underemployed people for careers in tech will be designed only for female participants.

For further initiatives related to tech talent in Calgary, please see the 2022 actions planned under the Talent focus area, Outcome 3.

⁴⁷ Brain gain was measured by looking at the difference between the number of tech degrees and the number of tech jobs.

OUTCOME 4: CALGARY'S CITIZENS BELIEVE CALGARY IS AN INNOVATIVE CITY

The innovation ecosystem requires a broader awareness and acknowledgement from the region in which it operates to thrive. Locally, this heightened awareness provides new opportunities and creates openings for new participants to enter and support the multitude of activities happening. Abroad and across North America, when Calgary is more well-known, awareness means easier attraction of top talent, companies, and new innovators to our city. Enhancing the overall awareness of Calgary's innovation ecosystem starts locally to ensure all Calgarians have an understanding that Calgary has a thriving tech ecosystem.

2021 key activities

The Live Tech. Love Life. social media campaign saw a total of 30.8 million impressions through paid campaigns and more than 400k impressions on the @LiveTech_LoveLife Instagram account. Through [the website](#), 19 stories were posted throughout 2021 featuring Calgary tech companies. In addition to featuring tech companies on the website's stories page, 50 companies took over the Live Tech. Love Life. Instagram account to share stories in their own words. These stories allow Calgarians to have a platform to speak about why Calgary is a great place to live, work, and play while also highlighting the work they're doing in the community. In 2021, the versatile and diverse group of companies based in Calgary included Chic Geek, Vetsie, Xerris, Good Lawyer, and Avanti Software to name a few.

In 2021, former Mayor Naheed Nenshi launched the inaugural Mayor's Innovation Challenge. The inaugural challenge received over 130 innovative submissions to answer the question: How might we advance innovative energy solutions on the path to net-zero emissions to achieve economic, social, and environmental resilience? Submissions were categorized into three streams: pre-commercial/startup, policy, and commercially ready. The winning submissions showcased three homegrown solutions to this global challenge: ZS2 Technologies, SAIT's Department of Applied Research and Innovation Services (ARIS), and the City of Calgary's Climate Resilience Team. Named one of Canada's top cleantech companies by Foresight, ZS2 Technologies is developing made-in-Canada magnesium cement-based building materials that have 1/3 the embodied carbon of traditional cement, creating highly efficient building envelopes, and are built to be resilient and withstand climate events. SAIT's ARIS Department developed a Vanadium Redox Flow Battery with a larger battery capacity, constant output, and does not lose performance over time, and the City of Calgary developed a Low-Carbon and Climate Resilient Building Standard. Overall, the results are a testament to Calgarians' willingness to take risks, try new things, and always strive to be and do better in exploring local challenges that can also have a global impact.

Calgary is increasingly recognized as a global hub for cleantech innovation and a leader in the net-zero energy transition. Startup Genome's *Global Startup Ecosystem Report Cleantech Edition* ranked Calgary as one of the top Ecosystems to Watch for Cleantech and ranked Calgary as the Top 15 Regional Ecosystem "Bang for Buck," Top 20 for Regional Ecosystem Affordable Talent and #2 for National Ecosystem "Bang for Buck" for cleantech markets globally.

Progress and performance measurement

KPI #1: Perceptions of Calgary as an innovative city

Calgary Economic Development regularly conducts perceptions research with audiences within Canada and specific international markets with the objective of monitoring shifts in how talent and business leaders perceive Calgary. Understanding how Calgary is perceived in these key markets allows us to better understand what opportunities might exist or could exist, in the future.

Over the past few years, basic familiarity, knowledge levels, overall perceptions, and targeted opinions have been steadily improving amongst business leaders in most markets surveyed and positive impressions of Calgary are favourable overall. Within Canada, there have been huge gains in Toronto since 2020. Leaders in Toronto see Calgary as a place with a variety of opportunities, evolving tech sector, and are increasingly seeing Calgary as innovative and diverse.

While business leaders were more likely to hold a favourable view of Calgary as being an innovative place where new ideas, businesses, and people thrive, changing the perceptions of talent (or workers) is an area of opportunity to increase the overall reputation and perceptions of Calgary.

Indicator	Business Leaders (agree/strongly agree) All markets⁴⁸	Talent (agree/strongly agree) All markets
Calgary is an innovative place where new ideas, businesses, and people thrive	78% (3% increase from 2020)	56% (2% decrease from 2020)
Calgary is an entrepreneurial city	80% (2% increase from 2020)	55% (3% decrease from 2020)
Calgary is an innovative city – new solutions, ideas, and technologies are being applied in new ways in Calgary	76% (4% increase from 2020)	54% (2% increase from 2020)
Calgary is quickly becoming a new hub for technology and innovation	68% (7% increase from 2020)	Not surveyed

⁴⁸ This table includes data for all markets that were surveyed in Calgary Economic Development's External Perceptions research. These markets were: Vancouver, Toronto, Montreal, Waterloo/Kitchener, Ottawa (Canada), Austin, Houston, Denver, Seattle, Silicon Valley (United States), London (United Kingdom)

KPI #2: Stories in the media on Calgary technology and innovation

An engaged and knowledgeable media community amplifies stories of success and shifts local, national, and international perceptions. Calgary and Alberta media outlets need to be connected and made aware of engaging innovation stories to increase the frequency of tech stories being published and therefore change the perception of Calgary’s tech and innovation ecosystems.

With the pandemic in its second year, there was a return to more business-related stories. While a large majority of media mentions originated in Canada, Calgary tech stories found themselves in other markets outside Canada, with 15% originating in the United States and 1% from the United Kingdom. The biggest media spikes were seen in February, September, and October of 2021. Based on keyword analysis sentiment, Calgary-tech was perceived as largely positive or neutral (29% and 71%, respectively).

Media Stories	2021	2020	2019
Calgary-tagged Betakit stories⁴⁹	78	39	43
All local and national publications with Calgary tech stories	1,703 (# of Calgary tech media stories)	442	488

2022 actions planned

After COVID-19 disrupted plans for Inventures in both 2020 and 2021, the event will come to Calgary a year after it was originally meant to be hosted here. June will be ushered in with this inspiring event that brings together investors, entrepreneurs, researchers, academics, thought leaders, and more for three days of learning, inspiration, and creative collisions. Speaking to what’s happening and what’s next, topics of focus will range from cleantech to smart ag and everything beyond and between. Innovators will have the opportunity to pitch their ideas for cash, feedback, and networking purposes. This is an exciting opportunity to showcase what’s possible right here in Calgary.

Energy Disruptors is also back in 2022. Energy Disruptors is a catalyst for bold, game-changing solutions to humanity’s big hairy problems through cross-industry collaboration and scaling of revolutionary energy, climate, and transportation technologies through uniting, trailblazing, and scaleblazing. After an incredibly successful 2019 Energy Disruptors Unite Summit that hosted the likes of Malcolm Gladwell, Sir Ken Robinson, the audacious Summit is ready to showcase Calgary as the heart of disruptive technology in 2022.

⁴⁹ In 2020, Startup Calgary and Platform initiated Patreon partnership with Betakit to advise startups on pitching to media and getting their company stories highlighted. In 2019, three Betakit writers hosted during Launch Party and Innovation Week.

PLACE

The place focus area sets an ambitious goal to be **Canada's most livable city**; continuing to work in line with imagineCALGARY's 100-year vision for Calgary to be "A great place to make a living, a great place to make a life." While Calgary has consistently ranked as one of Canada's most livable city by the Economist Intelligence Unit, there is still much to do to achieve our 100-year vision. This means focusing on key aspects of livability defined by international organizations such as the International Standards Organization (ISO), Economist Intelligence Unit, the United Nations, and Arcadis' Sustainable Cities Index. These aspects include resiliency, clean energy, environmental quality, affordability, transportation, safety, outdoor and public spaces, and attractions.

2021 Progress

OUTCOME 1: BUILD A CITY PREPARED FOR EXTREME EVENTS, POWERED BY CLEAN ENERGY SOURCES

There are innumerable organizations in our community working to build a resilient city powered by clean energy sources and this is an area of importance for the city, especially with Calgary's City Council declaring a climate emergency in November 2021.

In 2018, The City of Calgary approved the Climate Resilience Strategy which outlines The City's strategies and actions to mitigate and adapt to climate change impacts. Mitigation refers to efforts to reduce greenhouse gas emissions, whereas adaptation speaks to actions taken to reduce the impacts of climate change on infrastructure and services when they do occur. The Climate Resilience Strategy also set the City's GHG emissions reduction target at 80 per cent reduction by 2050 from a 2005 baseline. In 2021, the Climate Resilience Strategy underwent an extensive update in line with the climate emergency declaration and the drive to achieve net-zero by 2050. Calgary Economic Development has worked closely with the Climate Change Team at The City of Calgary to identify comparable, meaningful KPIs that demonstrate the greening of Calgary's economy. Many KPIs included in the economic strategy align with the 2021 Climate Resilience Strategy.

To provide strategic advice and support to facilitate the implementation of actions from the Climate Resilience Strategy, The City created the Calgary Climate Panel, a collaboration between industry, community, and The City. As well, the 2020 Municipal Development Plan (MDP) and Calgary Transportation Plan (CTP) both integrate sustainability principles and climate change mitigation and adaptation strategies, thus supporting and enabling the Climate Resilience Strategy. Specifically, the 2020 MDP and CTP include a commitment to 100 per cent zero-emissions community vehicle fleet by 2050.

Calgary Economic Development with Edmonton Global, and in partnership with PrairiesCan, published the [Alberta Energy Transitions Study](#) in 2021 which found that pursuing a net-zero future could potentially create 170,000 new jobs and contribute up to \$61 billion to Alberta's GDP by 2050. To realize this opportunity significant investment in cleantech is needed over the next two decades. There are currently 945 cleantech companies in Alberta with over 14,600 people directly employed in cleantech positions. 51% of cleantech ventures in Alberta are led by first time founders and 28% are born outside of Canada, showing the potential to attract talent should opportunity exist here.

2021 key activities

As the world works towards finding solutions for the wicked problem of climate change, The City of Calgary conducted a Climate Projections for Calgary Report which forecasts future climate scenarios for Calgary from now to the 2050s and 2080s. A Community Climate Risk Index was also developed in 2021 to assess the exposure and vulnerability of Calgary’s communities to a changing climate. Initiatives such as the launch of The City’s Urban Heat Island tool which provides geographical information on historic ground surface temperature (heat island) in Calgary will aid in monitoring Calgary’s exposure in the future, as the climate crisis continues.

Calgary continues reducing emissions in pursuit of net-zero and alternative sources of energy have become prevalent across the province, with 10.71% of Alberta’s electricity being generated from renewable sources. Across the city, there has also been an increase in the installation of photovoltaic (PV) solar panels with 5,592 sites were installed in 2021. In tandem with increasing renewable energy sources, The City completed several Public Infrastructure Climate Risk and Resilience Assessments to benchmark current and future climate risks of infrastructure and buildings, and to reduce the highest identified risks through integrated climate adaptation measures.

Passenger vehicles accounts for a significant portion greenhouse gas (GHG) emissions in Calgary. The level of GHG emissions from transportation varies considerably based on the mode of transportation used; in developing plans for a pathway and bikeway network that enables walking, biking, and other forms of wheeling, the City of Calgary is making strides towards reducing GHG emissions. By providing a reliable network of pathways and bikeways, The City will also help to address social equity and inclusion concerns by connecting residents with healthy, affordable transportation options for accessing employment and other needs and amenities. Shifting trips towards walking, biking, and wheeling will also help to reduce air pollution, noise pollution, stormwater runoff volumes, and traffic congestion.

Progress and performance measurement

KPI #1: Tonnes of CO2 equivalent (CO2e) emitted per capita

Mitigation efforts are a key aspect of the Climate Resilience Strategy, reducing GHG emissions is a key goal in those efforts. Understanding a city’s GHG emissions per capita is a measure of efficiency: How efficient are our city’s operations, buildings, transportation, industrial practices, per person living in Calgary. While Calgary’s GHG emissions have grown 18 per cent between 2005 and 2019, the per capita GHG emissions decreased, demonstrating increased efficiency, a trend that appears to be continuing in 2021.

2021	2019	2005
11.9 tonnes of CO2e/capita	14.47 tonnes of CO2e/capita	16.53 tonnes of CO2e/capita

2022 actions planned

One of the main priorities for building a city prepared for extreme events, powered by clean energy sources in the upcoming year will be the updating of The City of Calgary's Climate Adaptation Action Plan to align Calgary's Climate Strategy with current best practices in climate adaptation. The City is also working towards streamlining the process and tools for climate adaptation across all stages of the approval continuum through the work being done on the Climate Risk & Resilience Overlay project. This is important when moving forward as this initiative will be instrumental in guiding the process and decision making for years to come.

In efforts to assess climate risk amongst the different communities within the city, 2022 will see the integration of climate risk and resilience into Calgary's Greater Downtown Plan and Investment Strategy. Furthermore, Community Risk Profiles will be completed for communities in Calgary using the Community Climate Risk Index Tool. Projects such as these enhance our city's ability to be future-proof in a world where there are increasing amounts of unknowns.

OUTCOME 2: CREATE A CITY WHERE EVERYONE IS WELCOME, SAFE, AND ABLE TO BUILD A MEANINGFUL LIFE

A city is made of several moving parts. A welcoming and safe city where all citizens can build a meaningful life is a result of all those parts moving together cohesively. It's a collective effort that is not overseen and managed by one single organization. As a community, Calgary has several organizations and committees that contribute to this outcome. Organizations like Momentum and Vibrant Community Calgary, steward of the Enough for All Poverty Reduction Strategy, are examples of two organizations actively working to make Calgary a welcoming, inclusive city for all people.

2021 key activities

Calgary's first office space to residential building conversion kicked off in 2021 with an affordable housing project at the former Dome Petroleum building, now known as Sierra Place. The \$28.5 million dollar project received \$5.5 million from City Council as part of the Greater Downtown Plan; the Greater Downtown Plan was approved by City Council in April of 2021 with Council committing an initial \$200 million investment into the core. Once complete, the Sierra Place will feature six floors and 82 units of affordable housing for vulnerable populations including low-income women, women with children, Indigenous people, seniors, and newcomers. The remaining floors of the 10-storey building will consist of shelter, transitional, and support services. This project is set to create 160 jobs for the private sector and with additional incentives being proposed by The City for similar projects, will hopefully be the first of many.

The Downtown Ambassador Program, launched in the fall of 2020 by The City of Calgary and the Calgary Downtown Association to connect Calgarians and visitors to resources, services and support while also providing a friendly presence along Stephen Avenue and within the nine blocks that surround City Hall. Ambassadors spend time building relationships not only with local businesses and community organizations but regularly engage with vulnerable citizens, building a rapport and conducting wellness checks. Due to the success of the first year, summer 2021

saw the program extended to the entire length of Stephen Avenue and 7 Avenue, westward to Century Gardens, along with 3 Street from Stephen Avenue to the Eau Claire Promenade. This extension allowed for the ambassadors to connect with and support a larger number of Calgarians and visitors to the core.

In 2021, the Active and Safe Routes to School Program (ASRS) continued its third year of collaboration with Ever Active Schools, increasing program participation to 25 schools across the city. Infrastructure improvements were built at three schools and additional upgrades like curb extensions and missing sidewalks are scheduled at another 15 schools in 2022. Ever Active continued their 'In Residence' education and facilitation at program schools, diversifying their programming to include public transit safety sessions with Calgary Transit and winter cycling skills workshops with Two Wheel View. Staff also responded to a Council Notice of Motion for an expanded ASRS program that would use The City's GIS data to identify priority schools to be included in the next budget cycle, increasing the area of study around the school and looking at larger scale infrastructure improvements.

Progress and performance measurement

KPI #1: Citizen's perception of Calgary being a great place to make a life

There are many factors that are considered when people think about what makes a great place to build a life. These factors differ for everyone based on several personal reasons which can include amenities, affordability, access to services, geographic location, transportation options, etc. A city focused on being the best place to build a life must meet these varied needs so citizens and those looking to build a life here are able to find what's important to them.

Calgary's record-breaking year in the film and television industry continues to gain international recognition. The City made [MovieMaker's](#) list of Best Places to Live and Work as a Moviemaker in 2022, placing 10th among the Top 25 cities in North America. This is the second consecutive year Calgary has rounded out MovieMaker's Top 10, which considers numerous factors in its rankings, including survey results, production spending, tax incentives, recent productions, and personal visits.

Since 2007 Calgary Foundation's Vital Signs report has used expert research combined with results from citizen surveys to measure the vitality of Calgary and support data informed action to improve the overall quality of life in the city. Largely, the 2021 report finds that Calgarians have a favourable view of Calgary as a good place to live with 85% also saying they feel they are able to meet their basic needs (housing, food, utilities, and healthcare). This will be an important measure to look at next year based on recent global events such as global supply chain disruptions that persist due to COVID-19 and more recently the war in Europe raising prices of food, gasoline, and other basic needs. Perceptions around overall quality of life were down 11% in 2021 over 2020. This could be due in part to the uncertainty in 2021 around COVID and the ripple effects on day-to-day life as a result. With vaccines more readily available and restrictions being eased in 2022 it will be important to understand what factors impact this number going forward.

Indicator	2021 ⁵⁰
Calgary is a good place for families	88%
Calgary is a good place for young people	83%
Calgary is a good place for seniors	70%
Calgarians who feel they have a good quality of life	64%

KPI #2: Market Based Measure (MBM) incidence of low-income in Calgary

Tracking low-income incidence in Calgary is critical to understanding our citizens' abilities to build a meaningful life in our city. Market Basket Measure (MBM) is Canada's official poverty line. It measures the cost of a 'basket' of goods and services that represent a modest, basic standard of living and determines low-income based on this amount. In 2019, the MBM was \$25,008 for a single person and \$49,462 for a couple with two children.

In 2019, 5.2 per cent of Calgarians (or 189,000) were low-income, a decrease from 12.3 per cent in 2018. 2020 saw the figure come down to 4%. The Enough for All target for Calgary is a 30 per cent reduction in the incidence of low-income from 2015 figures.

Indicator	2020	2019
MBM incidence of low-income in Calgary ⁵¹	4.0%	5.2%

KPI #3: Affordable housing units

Arcadis's Citizen Centric Sustainable Cities Index in 2018 looked specifically at the needs of citizens and how cities enabled their diverse citizen groups to meet those needs. Their research showed that human needs are quite hierarchical in nature. If certain needs aren't being met, affordable housing for example, then dissatisfaction will follow, and this has a ripple effect. Currently, Calgary is not meeting national averages for non-market housing. It is critical for Calgary to provide the fundamentals for its citizens to live with security, dignity, and opportunity for the future.

Indicators	2021
Total number units owned and/or operated by the Calgary Housing Company	7,017

⁵⁰ Calgary Vital Signs, 2021 Report: <https://calgaryvitalsigns.ca/>

⁵¹ MBM data is sourced from Statistics Canada Table 11-10-0066-01: Market Basket Measure (MBM) thresholds for the reference family by Market Basket Measure region, component and base year. Data is released on a two-year lag, so the most recent data reported is for 2020, and was released in March 2022.

2022 actions planned

Over the past several years, Tourism Calgary, Calgary Economic Development and The City of Calgary have worked collaboratively to build a brand strategy, story, and framework to create a distinct and sustained brand for Calgary. Due to the change experienced by our city over the past few years as we continue to navigate a pandemic, a shift in the energy sector, a renewed focus on Equity, Diversity and Inclusion as well as our journey towards Indigenous Reconciliation, we have embarked on a brand review to better understand how our current story resonates. A formal engagement process was launched with Stormy Lake Consulting to gather the perspectives of stakeholders across a wide variety of sectors in Calgary through virtual workshops, Mayor roundtable discussions, focus groups and social listening. Findings from this engagement will inform how Calgary's brand story will evolve to better strengthen the city's competitive identity locally, regionally and abroad.

The Stephen Avenue Safety Hub project has been created to better serve the downtown community. A first of its kind facility in Calgary, the hub will be a centralized location for officers from Calgary Community Standards, Calgary Transit, and the Calgary Police Service to work out of. This pilot project will provide insights into how The City of Calgary and Calgary Police Services can simultaneously build strong community connections and increase perceptions of safety.

Part of the funding for the Stephen Avenue Safety Hub will come from the \$2.5 million City Council has approved for downtown safety initiatives over the next two years. Another program is the Downtown Ambassador program, a partnership between The City and the Calgary Downtown Association. In January and February 2022, ambassadors have already had almost 1,000 interactions, 705 interactions with vulnerable populations, and 166 referrals to social services. The presence of these ambassadors has been said to improve the feeling of safety in Calgary's downtown, something that is increasingly top of mind for citizens.

In March 2022, the federal government announced a commitment of \$38 million to support three projects that will add 244 new affordable housing units, 188 of which will be specifically for seniors in the city. The units are expected to be build over the next two years and are also partially funded by The City of Calgary.

Habitat for Humanity Southern Alberta will begin their second phase of constructing 16 units as part of their affordable home ownership program in Silver Springs, located in the northwest quadrant of Calgary. Families will be able to purchase and enjoy home ownership in an established community with a variety of amenities, including schools, acres of parkland, shopping, LRT access, and a swimming pool. The Silver Springs development was made possible with donations from the Calgary Real Estate Board, Calgary Foundation and the Calgary Flames Foundation.

OUTCOME 3: BUILD VIBRANT NEIGHBOURHOODS CONNECTED BY DIVERSE AND ACCESSIBLE MOBILITY OPTIONS FOR ALL

Given the scale of this outcome, there are many groups working towards achieving it.

The Downtown Strategy Leadership Team (to be called the Champions Network going forward) and Working Group implement the Downtown Strategy and the new Greater Downtown Plan, which aims to revitalize Calgary's downtown. The Downtown Strategy is structured across four focus areas: place, live, work, and connect, each with their own initiatives. The Leadership Team meets monthly to provide direction and oversight on the execution of the Downtown Strategy while the Working Group meets monthly. The working group includes stakeholders from The City of Calgary's Urban Initiatives, Business and Local Economy, and Recreation departments, as well as representatives from Calgary Economic Development. With the approval of the Greater Downtown Plan in April 2021 came a new team at The City of Calgary focused on downtown revitalization and activation, supported by the Downtown Strategy Champions Network and Working Group. In 2022 the Champions Network will meet once every two months and the Working Group continues to meet monthly.

In addition, at the request of local business communities, Calgary City Council has established 15 Business Improvement Areas (BIA) to support local improvements and beautification, development and maintenance of parking, and promotion of these areas as unique shopping and experience destinations. BIAs represent businesses in most of the city's key street level retail and restaurant areas, and support business development and growth in these important neighbourhoods. BIAs regularly host events, activations and campaigns to promote businesses and create vibrancy. For instance, in the International Avenue Business Improvement Area (located on 17th Avenue S.E., from 26th to 61st Street), business workshops are held within the community to assist individuals in growing their business knowledge. Montgomery on the Bow is another business improvement area that has three distinct commercial areas that cater to a variety of individuals – this includes both local residents and those that drive out from other parts of the city (and beyond) to experience the shopping and events held in this area.

2021 key activities

Calgary Transit is a key source of transportation in the city. In 2020, despite the pandemic, Calgary Transit recorded 51.1 million trips with 166 bus routes and 45 CTrain stations. With over 1,048 active vehicles and 6,144 transit stops, local service has a large network.

In June 2021, the Government of Alberta announced \$1.53 billion in funding for Calgary's Green Line Light Rail Transit (LRT) expansion, the largest infrastructure project to ever be undertaken in Calgary's history. This was followed by Prime Minister Justin Trudeau affirming federal support for the Green Line LRT project a month later in July 2021 with a commitment to invest up to \$1.53 billion, along with The City of Calgary contributing \$1.59 billion. This significant and massive investment for the future of Calgary will play a vital role in connecting people and places and creating up to 20,000 jobs while providing Calgarians with fast, modern and reliable transit service to communities, employment hubs such as downtown, Quarry Park and the southeast industrial areas, tourist destinations and essential services. The new Green Line will also benefit the environment, which is expected to reduce greenhouse gas emissions by 30,000 tonnes per year.

In addition to the work being done on the Green Line LRT, headway was made regarding the YYC Calgary International Airport - Banff Rail (CABR) project that will provide sustainable transportation to passengers from the YYC Calgary International Airport and downtown Calgary to the Banff railway station. A detailed memorandum of understanding (MoU) was signed in July 2021 between Invest Alberta, Alberta Transportation and Canada Infrastructure Bank (CIB). This project will increase employment and economic opportunities, enhance tourism,

and help Calgary and Banff meet climate targets and reduce carbon emissions. The CABR project is estimated for completion and operation by 2025.

Progress and performance measurement

KPI #1: Citizen Perceptions

Every year The City of Calgary conducts a Citizen Satisfaction Survey to understand how citizens feel about living in Calgary. These surveys are one important tool through which to better understand the needs of Calgarians and see areas of opportunity. These measures speak specifically to citizen perceptions about their neighbourhoods and their ability to move across the city.

Neighbourhoods and how people feel about the ones in which they live are an important part of building a meaningful life. When looking for neighbourhoods to reside in, people take into consideration many factors, it's not only about the property but also where it is, the amenities, transit systems, etc. From walkable neighbourhoods (with all the amenities its residents could need within a short walking distance) to Calgary's first garden-to-table community in the south, Calgary neighbourhoods and communities are growing in different ways to meet the needs of its residents.

Despite consideration given to amenities within neighbourhoods, it's not always possible to have everything one needs within their neighbourhood. Where you work, specialized goods and services, family, and friends aren't always a short walk away. This creates the need to ensure that citizens can move through the city with ease.

Perceptions of citizens give us insight into if what's being done is effective and useful and where there might be work needed.

Indicator	Fall 2021 Data⁵²
Proud to live in their neighbourhoods	84%
Regularly involved in neighbourhood and local community events	26%
Satisfaction with Calgary Transit	84% are satisfied or very satisfied
More money should be invested into Calgary Transit	51% agree

KPI #2: Connectivity and accessibility of neighbourhoods

The following KPIs speak to whether Calgarians live in neighbourhoods connected by transportation options and whether these neighbourhoods are close to activity centres and main streets, or corridors. Connectivity to primary transit networks is a priority for The City of Calgary and is

⁵² City of Calgary Quality of Life and Citizen Satisfaction Survey, Fall 2021.

being accelerated to achieve the 60-year target. Accessibility to daily needs (i.e., population within Major and Community Activity Centres) is on track to the achievement of the 60-year target. It should be noted that these KPIs are part of the core indicators from the 2020 Municipal Development Plan and Calgary Transportation Plan to be tracked every four years. With no civic census in 2021 proxy measures are being used as a placeholder for this year's report.

The city has designated certain areas of the city as Activity Centres, these are areas of higher intensity (density of jobs and population) that have higher levels of transportation services and other amenities to accommodate this higher intensity. Tracking the number of building permits issued in those areas allows us to see how much building activity is taking place in these areas – Activity Centres, near Primary Transit Network (PTN) and Main Streets.

Cumulative Issued Building Permits (BP) within 400m of the Primary Transit Network (PTN)⁵³ (2011 – 2021)

Year	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Not within 400m of PTN	107,626	95,918	88,792	80,664	71,514	63,417	56,180	47,736	37,091	27,513	18,577
Within 400m of PTN	18,970	17,304	16,129	14,432	12,875	11,903	9,488	7,644	4,552	3,182	1,445
Year	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Cumulative Percentage of Citywide BPs within 400m of PTN	15.0%	15.3%	15.4%	15.2%	15.3%	15.8%	14.4%	13.8%	10.9%	10.4%	7.2%

Cumulative Issued Building Permits in Activity Centres (AC) or within 600m of Main Streets (MS) (2009 – 2021)

Year	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Not Within AC or MS	89,267	80,414	74,665	68,320	61,647	54,881	48,896	41,652	32,680	24,270	16,444
Within AC or MS	37,329	32,808	30,256	26,776	22,742	20,439	16,772	13,728	8,963	6,425	3,578
Grand Total	126,596	113,222	104,921	95,096	84,389	75,320	65,668	55,380	41,643	30,695	20,022

⁵³ The Primary Transit network is a system of interconnected routes that are fast, convenient, and easy to use. Primary transit routes run every ten minutes, 18 hours a day, seven days a week. Having access to this level of service is key to making travel affordable and easy throughout Calgary. Due to COVID, no routes are currently operating at a PTN level of service. For this analysis, an assumption is used that the Primary Transit Network includes the Red Line, the Blue Line, and Route 3, routes which have historically operated at PTN levels of service.

Year	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Cumulative percentage of Issued Citywide Building Permits Within Activity Centres or 600m of Main Streets	29%	29%	29%	28%	27%	27%	26%	25%	22%	21%	18%

KPI #3: Transportation services

Diverse transportation and mobility options means Calgarians can access fundamental amenities, their workplaces, and their social circles in an inclusive way. It is important for a healthy and resilient city to provide multiple types of transportation.

The following KPIs are part of core indicators from the 2020 Municipal Development Plan and Calgary Transportation Plan to be tracked every four years. With no civic census in 2021 proxy measures are being used as a placeholder for this year's report. All the transportation KPIs are priorities for The City of Calgary and align to the Future of Transportation strategy and the 2020 Calgary Transportation Plan.

The table below shows data for percentage of all-purpose, citywide trips made by walking, cycling, transit, and car. This includes trips for work, school, leisure or others within a 24-hour period. Numbers for 2021 have not been calculated yet and therefore are presented as targeted forecasts. The significant dip in transit ridership in 2020 was a direct result of impacts related to COVID-19. In April 2020, ridership was at 10 per cent of 2019 levels. When surveyed, transit customers provided reasons such as discomfort with using public spaces during and post-pandemic and changing needs for using public transit. As routines change and more flexibility is provided with remote work, public transit to and from downtown may be structurally changed, but there is optimism with recent estimates and transit trends for 2021 that ridership will increase significantly.

Mode	2021 Target	2020	2019	2018	2017	2012	2005
Active	20-25%	22%	18%	18%	18%	13%	14%
Transit	15-20%	3%	9%	9%	8%	9%	9%
Auto	55-65%	75%	73%	73%	74%	79%	77%

To help provide a reliable network of pathways and bikeways, the Liveable Streets division of Transportation Planning continued to lead the implementation of Step Forward, Calgary's pedestrian strategy that was approved by Council in 2016. In addition to the pedestrian strategy, the Always Available for All Ages and Abilities (5A) network was approved by Council as part of the 2020 Calgary Transportation Plan. The 5A network is a city-wide plan for a network of pathways and bikeways protected from motor vehicle traffic, designed to meet the needs of

people of all ages and abilities as it will provide a consistent, reliable experience through lighting and year-round maintenance. The city's wheeling network has expanded in 2021 as shown in the table below.

Bicycle Facility Type (KM)	2021	2020	2009 (Baseline)
Total cycling network	1,807	1,515	1,065
Pathway (off street)	1,289	1,022	710
Bikeways (on street)	518	493	355
Bike routes	416	405	328
Shared lanes	19	20	15
Bicycle lanes	57	57	12
Cycle track	26	12	0

KPI #4: Sliding scale transit passes sold

As an indicator of inclusivity, sliding scale transit passes provide the opportunity for all Calgarians to access daily amenities. Public health restrictions related to COVID-19 continued to impact Transit ridership and low-income pass sales in 2021, this saw a decrease in the number of sliding scale transit passes sold for the second year in a row. With the availability of vaccines and health restrictions beginning to ease Q4 2021 sales were the highest of any quarter in 2021 which will hopefully be a continuing positive trend.

2021	2020	2019
246,424	270,035	480,915

2022 actions planned

Following the pledged funding for the Green Line LRT in 2021, 2022 has seen the announcement of the acquisition of the former Lilydale warehouse site in preparation for Phase 1 construction that is anticipated to begin in 2024. As for the YYC Calgary International Airport – Banff Rail (CABR) project, an economic impact study is underway and will be presented to the province to ensure due diligence as the project remains in Phase 3: the Development Phase.

Continuing with alternate modes of transportation throughout the city, e-scooter companies Bird Canada and Neuron Mobility Canada return to Calgary streets in 2022. After being awarded the permits to operate in 2021 following a competitive bid process supported by The City of Calgary, both Bird Canada and Neuron Mobility Canada saw significant ridership, with hopes that the trend continues upward in 2022. Additionally, planning development continues for the 38km trail between Calgary and Cochrane that was announced at the end of 2021, with the completion of the first phase of the trail projected for 2025.

The City's Dover Neighbourhood Streets Project has identified a number of focus corridors that will realize a connected grid of walking and wheeling improvements that align with the City's Step Forward Pedestrian Strategy, the 5A Network in the Calgary Transportation Plan, and Complete Streets Policy. One of the key corridors is 34 Avenue S.E. where the two westbound lanes and median will be repurposed for a bi-directional cycle track and enhanced naturalized open space. Auto traffic will be shifted to two-way operations in the current eastbound lanes. This project will be phased over multiple years, with Phase 1 being constructed in 2022 through a mix of permanent and temporary materials.

Following the successful uptake of the office-to-residential conversion incentive program in late 2021 and early 2022, the Real Estate Sector Advisory Committee is now shifting focus to providing the right amenities to the downtown core, which will create vibrancy.

OUTCOME 4: CREATE DIVERSE AND ENJOYABLE EXPERIENCES FOR EVERY LIFE STAGE AND INTEREST

This key outcome is managed and executed by multiple organizations across Calgary. Calgary Economic Development works with The City of Calgary, Tourism Calgary, Calgary Arts Development Authority (CADA), and other civic partners to provide a city-wide view of progress. These organizations work tirelessly to achieve their organizations and The City's objective to enhance tourism, culture, and recreation assets.

2021 key activities

Calgary Arts Development Authority (CADA) is committed to celebrating Calgary's Diversity Advantage. This includes ensuring that artists and arts organizations have equitable access to grant investment and arts development programs. For 2020, CADA reported a 50% increase in the number of Indigenous artists and Indigenous-led organizations receiving funding. In June 2021, CADA announced \$75,000 of their ArtShare Program funds to support artistic projects in the memory of the 215 children found at Kamloops Indian Residential School. Recognizing the impact and ongoing devastation and trauma of these discoveries CADA named the funding pool the Honoring the Children Grant with the support of their Indigenous Advisory. This will continue to be offered in 2022.

Chinook Blast, began as an idea at the end of 2019, an idea to bring together partners from a diverse group of industries and backgrounds for an inclusive event that would invite Calgarians and those from across the world out to celebrate the wonder of winter, Calgary's own winter festival. As planning picked up in 2020 so did concerns around COVID-19, this did not deter the organizers from forging ahead with plans for its inaugural event in February 2021. Led by 10 founding civic partners that included The City of Calgary, Tourism Calgary, Calgary Arts Development along with more than 50 additional businesses supporting operations, logistics, programs, and marketing plus 45 local committee members that represented 32 different organizations this is truly an event by the community for the community. In its first year, amidst COVID restrictions, which resulted in condensing the festival to three weeks instead of the originally planned six, Chinook Blast 2021 saw 391,903 people in attendance across the various programming offerings in February 2021. 100% of the budget was spent with local artists, organizations, vendors, Business Improvement Areas (BIAs), and marketing partners.

In March 2020, the ActiveCITY Collective, CADA, and other community partners began funding a [longitudinal study](#) to provide relevant and reliable data about how Albertans are reacting to what's happening in the world and its impact on the experience economy. The findings reveal

that the pandemic has fundamentally changed the way people live, work, and play. To retain audiences, attract new audiences, and build new communities and networks, recreation and wellness organizations need to rethink how they design experiences. To support this rethink, ActiveCITY plans to launch a series of experience design workshops that will invite leaders from organizations across the city to come together, learn from each other and design new experiences for their clients.

In efforts to better serve the community and the events industry, The Calgary TELUS Convention Centre (CTCC) took advantage of the downtime from the pandemic to work on capital projects to help enhance the delegate experience from upgrades and modernization of the public and non-public event spaces, to making the centre more accessible. Additionally, as the vaccination roll-out plan commenced in the spring of 2021, the event centre was converted into a mass vaccination site which saw over 400,000 individuals during its time of operation. This was a large initiative that contributed to the greater wellbeing of Calgarians and played a critical role in achieving the targeted vaccination rates.

Progress and performance measurement

KPI #1: Amenities in Calgary

A diversity of amenities for a wide range of interests and audiences is important to a thriving economy and a key indicator of livability. Some global city rankings use this data point as an indicator of diversity and availability of amenities in cities around the world.

As of March 2022, Tripadvisor listed 853 things to do in Calgary. This list includes a variety of attractions and amenities, from cultural institutions, landmarks, and outdoor spaces to spa and wellness sites. The top ranked amenities at the time of writing included Heritage Park, The Calgary Zoo, Calgary Stampede, Prince's Island Park, The Glenbow Museum, and the Bow River, and the top ten was rounded out by more cultural institutions as well as natural spaces showcasing the diversity of options available for all interests.

CADA monitors and tracks contributions made to the arts and culture community in Calgary. Key services and supports CADA provides include public art placement and decision making, funding to support the creative economy and activations downtown, grants for arts organizations, and sponsorship for arts and culture events across the city. On behalf of the citizens of Calgary in 2021, Calgary Arts Development invested \$11.4M through more than 600 grants to artists, arts organizations, collectives, and events.

Key infrastructure projects continued to progress: Glenbow Museum Renovations are moving along and in the second phase, making progress on their Glenbow Reimagined campaign to raise remaining funds for the project. The Arts Commons Transformation project also continues to move along, having completed business assessments and public engagement the prime design team is now ready to move into the next phase of planning and design. Part of the design team is two Calgary-based architect firms – Tawaw Architecture Collective inc. headed by Canada's first female First Nations architect, Wanda Dalla Costa, and Hindle Architects.

Indicators	Number⁵⁴
Number of amenities	853
Number of public arts events hosted	7,486
Number of participants at public arts events hosted	1,461,106
Number of arts education activities provided by Calgary arts organizations for children and youth	4,494
Number of children and youth who participated in arts education activities provided by Calgary arts organizations	79,516

KPI #2: Sports and recreation accessibility

A key component of wellbeing is physical activity, and Calgary is touted as one of the most active cities in Canada. In 2021, due to COVID-19, access to City recreation facilities didn't recover completely but has seen an incline in attendance with restrictions easing and providing more consistent access than in 2020. The number of Calgarians approved for the Fair Entry Program, however, did see a decline due to the impact of facility closures because of provincial health orders, including recreation centres and ice rinks.

Indicators	2021	2020	2019
Number of visits to Calgary recreation facilities	2,137,734 (City of Calgary and YMCA owned facilities)	1,299,713 (City of Calgary facilities)	4,199,539 (City of Calgary facilities)
Number of Calgarians approved for the Fair Entry Program	56,381	66,000	96,523 ⁵⁵

2022 actions planned

As part of The City's commitment to truth and reconciliation, City Council approved a Notice of Motion in January 2022 to explore land in and around the confluence of the Bow River and Elbow River that can be used for the development of an Indigenous Gathering Place. The City, working alongside Indigenous Gathering Place Society of Calgary, is assessing possible parcels of City-owned land that are suitable for the project and planning to engage Indigenous leadership from Treaty 7 and Metis Nation of Alberta, Region 3. A report will come back to Council

⁵⁴ Data available is for 2020, this is the most current data available. 2021 data is still being collected at the time of this report's publication and will be reported on in the next report.

⁵⁵ This number is not directly comparable to 2020 data. In 2019, 96,523 people were enrolled and used Recreation's Fee Assistance Program. In 2020, 66,000 were approved by Fair Entry and indicated they wanted to use the Fee Assistance Program.

*https://www.tripadvisor.ca/Attractions-g154913-Activities-0a30-Calgary_Alberta.html

later in 2022 with the proposed next steps. Calgary is home to over 500 spaces that are devoted to different cultures and spirituality and yet, not one is built specifically for Indigenous Peoples' ceremonial practices.

In February 2022 a \$25 million endowment from the Shaw Family Foundation to the Glenbow Museum assured that when the Glenbow opens in 2024 it will be one of the first major museums in Canada to offer free general admission. This move means that cost, sometimes a major barrier to access to cultural institutions will no longer be an obstacle to entry and access to the space.

The International Avenue Business Improvement Area (International Ave) has been using art to make the vibrant International Avenue business district feel more welcoming, safe, and fun. With funding received from the federal Canada Healthy Communities Initiative, along with local artists and community involvement, International Avenue created "The Road Less Travelled 32nd St. Project" to revitalize a block of 32nd Street SE in central-east Calgary using art, lights, and creativity. In the spring of 2022, 10 new art installations will be added as part of their "International Avenue's Spring Has Sprung Event," featuring ten local artists and their artwork along 17 Avenue SE. This will bring the art installations on the street to a total of 50 art installations.

Calgary's 31st annual 4th Street Lilac Festival will also return this spring after a two-year hiatus due to the COVID-19 pandemic. Being one of Calgary's largest outdoor summer events, this pedestrian-friendly, all-ages event offers an array of musical talent with six stages hosting over 30 performances a day. This year features a new addition to their programming which includes the "Underage Stage," which promotes Alberta's youth in support of their bright future in music. The 4th Street Lilac Festival will also feature over 500 vendors that vary from artisan crafts, to imported wares, to community organizations.

Calgary's summer Folk Music Festival will be returning in July 2022 for its 43rd annual event in Prince's Island Park. This four-day family-friendly cultural and musical extravaganza will feature 70 artists from Alberta, Canada, and around the world. Also included is a food vendor alley and arts market, as well as beer gardens. The Calgary Folk Music Festival is an essential community gathering for 53,000 Calgarians and tourists, run by 2,000 volunteers. Additionally, Calgary will be home to the 40th anniversary celebration of the Canadian Country Music Awards, which will return to Scotiabank Saddledome in the fall of 2022. In addition to the awards, Calgary will also host Country Music week here as it did the last time the awards were hosted in the city in 2019. Tourism Calgary reported approximately \$12 million added to the economy after the 2019 events.

The Calgary TELUS Convention Centre has a big year ahead as the CTCC has already confirmed/executed 90 events for 2022: 3 international, 20 national/provincial, and 70 local to the city. It is estimated that the CTCC will secure over 140 more events to host before the year is up, bringing together bright minds and diverse perspective at a time when connection and in-person interaction is greatly anticipated.

COVID-19 has fundamentally changed the way people live, work, and play and in response to that community organizations need to rethink their approach when planning and executing within the experience economy. The ActiveCITY Collective is launching a series of experience design workshops with leaders from organizations across the city to come together learn from each other, and design new experiences for their clients.

With three areas of focus, these experience design workshops will culminate in a series of events taking place throughout the summer and into the end of 2022. Through showcasing new opportunities for Calgarians to engage in experiences, ActiveCITY is also championing Calgary's brand as a global destination for people to be part of healthy communities that have a diversity of options for recreation and play. This work is being carried out in partnership with several community organizations throughout the city.

BUSINESS ENVIRONMENT

Our economic strategy positions Calgary to become **Canada’s most business-friendly city**. The City of Calgary defines being business-friendly as: balancing the needs of our residents, customers, and communities with the needs of our business community. Business environment refers to both the ease of conducting business and the level of business activities in Calgary. While other focus areas of the economic strategy are critical to talent and business attraction, retention, and expansion, the ease and cost of doing business are consistently perceived as one of the most important factors driving relocation.

This focus area is not only focused on creating a low tax environment, but also on making development and building permit processes, business license applications, and other regulations and requirements easier to navigate. This area has also been expanded to encompass connectivity, from a physical and digital infrastructure perspective, as a key component of doing business in Calgary. Ensuring The City of Calgary is a partner in innovation through policy and regulations on data sharing, testing facilities and pilot programs, and 5G infrastructure.

Governance and Management

The City of Calgary’s Business and Local Economy Team was created to advance and manage the initiatives and programs of the Business Environment focus area. Council’s Business Advisory Committee acts as a conduit to address perceived City of Calgary barriers that business stakeholders face in their everyday operations. The Business Advisory Committee’s external working group is made up of key business leaders in Calgary who provide feedback and direction on priorities. The Living Labs Team at The City of Calgary works to formalize and simplify the process to make public spaces, transportation corridors and land more accessible for the research and testing of innovative solutions. The City of Calgary’s Information Technology (IT) Team is responsible for the city’s digital infrastructure, while YYC Calgary International Airport is a critical partner in keeping Calgary globally connected to key trading and business partners.

2021 Progress

OUTCOME 1: BUILD A GLOBALLY AND DIGITALLY CONNECTED CITY

Being a globally and digitally connected city involves several factors, this involves connectivity – how connected are people to each other within a city, be it businesses, workplaces, individuals, as well as how connected are all these businesses and individuals to the rest of the world. Ease of delivery and receipt of goods and services, ease of moving in and out of the city through air, rail, or automobile is another factor.

2021 key activities

Amazon Web Services (AWS) will expand its global infrastructure with the establishment of a Data Center Region in Calgary that will be one of two in Canada available to millions of AWS customers worldwide, including many Alberta-based businesses and public sector

organizations. AWS said it will directly invest \$4.3 billion into the Alberta economy, which is estimated to create more than 950 new jobs in Canada and contribute an estimated \$4.9 billion to the country's GDP by 2037.

In the summer of 2021, the Alberta Government signed a memorandum of understanding with Prairie Link – a partnership between construction company EllisDon Corp. and infrastructure consultant AECOM – to move ahead with the \$9 billion project to link Calgary and Edmonton through a high-speed train. Construction should begin in 2023 and would take anywhere from seven to nine years to be completed. This is an important project that has been in demand for years and would finally link the largest municipalities in Alberta as well as connect two international airports.

At the end of 2020 Canadian Pacific (CP) announced a hydrogen locomotive pilot. Originally slated for one locomotive conversion, the pilot was expanded from one to three conversions by the end of 2021. The expansion of the program was made possible by a \$15 million 50% matching grant from Emissions Reduction Alberta. The hydrogen fuel cell-powered linehaul freight locomotive (H2OEL) is a retrofit of an existing diesel-electric linehaul locomotive. Initial renderings of the unit released in October show a green and blue locomotive representing “sustainability, water, and technology” while the font choice and style symbolizes “movement and progress in action”. This is an important project when speaking of the future of sustainable transportation and could set an example for the industry of what is possible with CP working on refining the process of converting diesel-electric powertrains to hydrogen electric.

YYC Calgary International Airport is one of the most connected airports in the country. As a connector not only to international flight hubs like Toronto and Vancouver, it's also a leader in domestic flights. In 2021, Calgary was also one of the first airports in the country to pilot the rapid testing program for travel and with the easing of restrictions in the latter half of the year saw, an uptake in travel again. With the impact of COVID-19 in 2020 and passenger flights largely grounded due to restrictions and a growing demand for e-commerce, The YYC Airport Authority pivoted to meet the high demand of cargo capacity requirements. This trend continued in 2021 and YYC Calgary International Airport has continued to see a rise and meet the demand for increased cargo transport. In response to the increased cargo transportation across the country, Calgary headquartered WestJet Cargo announced in June of 2021 the launch of a dedicated cargo service to fulfill the increased need, which is expected to be in service by mid-2022.

Additionally, The YYC Airport Authority (The Authority) implemented some very successful programming as it continued to adjust to the everchanging landscape caused by COVID-19. For the second year in a row, The Authority successfully obtained the Airports Council International (ACI) accreditation for #FlyHealthyYYC as they continued to prioritize safety and peace of mind for employees, guests and partners. They also worked closely with the Public Health Agency of Canada (PHAC) to develop a dedicated testing centre that safely accommodated more than 2,000 guests a day and provided quick and easy access to testing.

Calgary-based airline Lynx Air was launched in November 2021. The airline offers low fares and a fleet of brand new, ultra-reliable and energy-efficient Boeing 737s. The airline is serving five destinations including Calgary, Vancouver, Toronto, Kelowna and Winnipeg, with more destinations to come, providing Calgarians with yet another option to stay connected with other parts of the country.

Progress and performance measurement

KPI #1: 5G in Calgary

A study commissioned by Calgary Economic Development in 2020, and released in 2021, showcased Calgary as a national leader in 5G preparedness and building the necessary components of a digital ecosystem. When compared to other Canadian municipalities including Vancouver, Edmonton, Winnipeg, Toronto, Ottawa, Montreal, and Halifax, Calgary was the only municipality to meet all defined criteria to build an effective digital ecosystem. Perhaps most importantly, Calgary was the only municipality at the time of the study, other than Montreal, currently working with national wireless service providers (WSPs) to build a digital playground downtown for testing and piloting 5G enabled applications. The City of Calgary already has guidelines and processes in place for WSPs and other businesses to build 5G infrastructure.

In 2020, The City of Calgary began working with WSPs to standardize how land and site inquiries were managed and executed as WSP’s work to enhance the connectivity of their users within Calgary. The process starts with WSP’s submitting a site inquiry for a parcel of land (owned and/or operated by The City); such an inquiry can contain up to 20 sites (example of a single site: utility pole, utility box etc.). The City of Calgary assesses the site inquiries and provides a scope of work, which can include necessary logistics and regulations associated with the proposed inquiry and cost approximations. The WSP then can choose if they would like to proceed with the development of the sites and the number of sites; WSPs are not required to proceed with all sites included in the inquiry. 2021 was the first year in which inquiries moved from ideation to construction, however, the numbers in the table below solely represent ideation inquiries. Site inquiries allow us to be able to track how many potentially viable sites are available for 5G connectivity.

Indicator	2021	2020
Number of site inquiries from Wireless Service Providers	34	64

KPI #2: YYC Calgary International Airport volumes and flights

YYC Calgary International Airport is a critical component of Calgary’s connectivity to national and international jurisdictions. The ease with which Calgary companies can connect to their trade partners and export destinations is critical for the expansion and retention of local companies, while the connectedness of Calgary is also a key factor driving company attraction to the city. Of course, while YYC Calgary International Airport was one of only four Canadian airports open during COVID-19, there were significant declines in passenger volumes and direct non-stop flights from 2019 to 2020. However, 2021 was a year of recovery, particularly in the second half of the year. Domestic travel, specifically, rebounded faster than transborder and international, which has had a longer road to recovery because of complexity and ongoing restrictions. Furthermore, YYC Air Cargo experienced record growth in 2021. High cargo load factors and increased frequencies were driven by e-commerce and reduced belly capacity on passenger aircraft and world supply chain congestion.

Indicators	2021	2020	2019
Air cargo landings at YYC Calgary International Airport	5,363 landings	4,780 landings	4,305 landings
Number of direct non-stop flights	76	42	88

2022 actions planned

The City of Calgary intends to launch their Digital Playground downtown which would allow the testing and piloting 5G enabled applications.

Canada Pacific’s (CP) Hydrogen Locomotive Program is field-testing their Hydrogen Zero Emissions Locomotive (H20EL) and is aiming to have the locomotive operational by the end of 2022. At this point, CP will be able to evaluate the technology’s readiness for the freight-rail sector by conducting qualification testing and rail service trials.

Furthering Calgary’s connectivity, The YYC Airport Authority looks to develop a more predictable, efficient airport environment in which to operate whilst striving to be the lowest cost airport in Canada and ensuring that the customer is at the heart of every decision. They will also be looking to create an efficient, contactless guest experience for all who pass through.

OUTCOME 2: HELP BUSINESSES GROW, THRIVE, AND MAKE DATA DRIVEN DECISIONS

2021 key activities

An Innovation District can be a key driver and catalyst for future growth and prosperity. Looking at other jurisdictions around the world we know that Innovation Districts can be successful in revitalizing local economies and communities. Reigniting the exploration of the possibility of an Innovation District in Calgary, in 2021 the Downtown Strategy Working Group formed a sub-working group to advance the work. Together, a team comprised of The City of Calgary, Calgary Economic Development, SAIT, and Platform Calgary initiated the Discovery Phase of advancing an Innovation District in Calgary. In September 2021 three virtual focus groups were held with 20 senior leaders in our community to understand what a successful Innovation District could look like in Calgary and what might get in the way of this success. Participants imagined a successful innovation district would be a place defined by: accessibility and inclusivity, good governance, a complete neighbourhood, and collaboration and connections.

Following these focus groups, in November and December 2021, community engagement workshops were held at the Platform Innovation Centre to understand Calgary’s current position across key components of an Innovation District: Built Environment, Encouraging Collisions, Cultural Vibrancy and Economic Drivers. We heard the built environment needs to encourage connections and collisions and be a magnet for business, talent and investment. We must encourage collisions for “the right people at the right times” through spaces and programming that are accessible and welcoming to all. The Innovation District should be where people want to live, work and play in a way that catalyzes our

innovation ecosystem. And there must be a continual interplay between education and industry; a seamless collaboration that reinforces growth and economic prosperity for all.

Calgary is also a Living Lab for those looking to test and try new ideas and products in a real-life environment. These environments are assets that The City owns. Companies and organizations looking to access The City's Living Labs can apply to gain access to one of several locations across the city. From industrial land for drone flights, roadways, warehouses, natural spaces, and even the Calgary Film Centre – there are several types of environments to choose from. Surprisingly, despite the uncertainty that COVID-19 presented, there were 41 additional Living Labs projects in 2021.

Progress and performance measurement

KPI #1: Businesses by industry

Understanding the distribution of business and industries represented within a city is important to understand progress towards economic diversification. A diverse and healthy economy has a balanced spread of businesses across industries.

Between 2019 and 2021, the transportation and warehousing industry has seen an increase in businesses, along with information and cultural industries and accommodation and food services.

NAICS ⁵⁶ Description	2021 ⁵⁷	2020 ⁵⁸	2019 ⁵⁹
	Number	Number	Number
Total, all industries	58,788	57,933	58,222
Agriculture, forestry, fishing and hunting	287	306	291
Mining, quarrying, and oil and gas extraction	908	986	1034
Utilities	104	99	106
Construction	6,414	6,375	6,645
Manufacturing	1,606	1,616	1,617
Wholesale trade	2,337	2,373	2,408
Retail trade	5,401	5,090	5,111
Transportation and warehousing	2,788	2,591	2,462
Information and cultural industries	630	610	611
Finance and insurance	1,923	1,911	1,931

⁵⁶ The North American Industry Classification System (NAICS) is an industry classification system that has been developed to provide common definitions and a common statistical framework for economic analysis. It is a comprehensive hierarchical system that divides the economy into 20 sectors at the highest level and then breaks them down into more specific economic activities within the sector. One thing to note when looking at NAICS codes, some businesses are complex enterprises where activities may fall within several different sectors, which may lead to misrepresentation of their activities. Oftentimes this is captured within the further breakdown of the code (sector, subsector, industry group level, etc.).

⁵⁷ Canadian Business Counts, with employees, census metropolitan areas and census subdivisions, December 2021

⁵⁸ Canadian Business Counts, with employees, census metropolitan areas and census subdivisions, December 2020

⁵⁹ Canadian Business Counts, with employees, census metropolitan areas and census subdivisions, December 2019

Real estate and rental and leasing	2,412	2,400	2,446
Professional, scientific and technical services	11,520	11,659	11,567
Management of companies and enterprises	423	411	403
Admin. and support, waste mgmt. and remediation services	2,567	2,679	2,745
Educational services	732	730	749
Health care and social assistance	5,687	5,450	5,144
Arts, entertainment and recreation	558	577	589
Accommodation and food services	3,380	3,426	3,416
Other services (except public administration)	4,367	4,394	4,349
Public administration	68	71	68

KPI #2: Business licences

In the spring of 2020, The City of Calgary waived business license renewal fees and put an auto-renewal into effect for all businesses. This auto-renewal will continue through 2022 and Business License Renewal fees will be reinstated on March 16, 2023.

Additionally, in the figure below, the Business License Issued (New) includes all categories, including the new business license category for Short Term Rentals added by The City of Calgary in February of 2020.

Indicators	2021	2020	2019
Business License Renewals	39,693	39,753	32,372
Business Licence Issued (New)	7,508	7,334	6,814

KPI #3: Living Labs

Because of the uncertainty COVID-19 continued to present in 2021 numbers for Living Lab projects were not expected to change drastically in 2021, but the numbers climbed significantly from 2020. Several factors lead to this increase including (but not limited to):

- Support from municipal leadership to back and execute innovative and entrepreneurial projects
- Referrals through social media
- Referrals through Calgary Economic Development
- Activities around the Downtown Strategy

Lux Modus was a return user in 2021. Years ago, they took advantage of the Living Labs program to test their light detection and ranging (LiDAR) technology for pipeline construction. LiDAR has several uses, most recently known for it's use in autonomous or self-driving cars, this tech uses the pulse from a laser to collect measurements which are then used to create 3D models. The 2021 lab found Lux Modus working

with the team at Calgary Transit to collect data needed to test out rail specific software algorithms to develop and test new products with their LiDAR tech.

Indicators	2021	2020
Living Labs Projects	50	9

KPI #4: Available City of Calgary open datasets

To grow and thrive, businesses need data to make data-driven decisions in their best interest. Open access data enables entrepreneurialism and creates the conditions necessary for success in a world increasingly driven by data and the ability to analyze and use data for insights and foresight.

Last year through continued increasing organizational awareness of the value, policy, and efficiency to publishing open data, The City was able to make more data available.

2021	2020	2019
372	340	295

2022 actions planned

In 2022, The City’s Living Labs project will continue to expand, ensuring that adequate resourcing is available for Living Lab activities along with evolving procurement practices to support innovation and The City as a first customer for innovative technologies. The team will also be making a case for a physical technology lab space for software and hardware piloting/testing. Developing awareness of federal and provincial funding sources available for entrepreneurs and startups to access when developing products and/or services is also a priority.

The Innovation District Working Group continues to discuss and explore key components of Calgary’s Innovation District across: Built Environment, Encouraging Collisions, Cultural Vibrance, and Economic Drivers. In 2022, the group is driving towards the “Launch Phase” where a business case will be written, further investment will be pursued, and a governance model will be established.

OUTCOME 3: ANTICIPATE AND REDUCE BARRIERS TO DOING BUSINESS

2021 key activities

When it comes to reducing barriers to doing business, the Government of Alberta showed commitment to that within the Film and Creative Industries sector with the removal of the \$10 million per project tax credit cap for productions within the sector. They also added \$19.5

million to the budget which raised the 2021/2022 budget to \$50 million. These decisions create greater incentives for productions across the province and add to the increasing buzz around Film and Creative Industries. 2021 was a very successful year for production in Calgary.

Being a film-friendly city is also an area of interest for The City of Calgary. In 2021 they completed the development of the current state of the filming environment and processes in Calgary. During engagement with both external and internal stakeholders, major roadblocks in the current state were identified. Based on the recommendations, a dedicated resource was hired by Arts & Culture to lead the next steps in 2022.

Calgary saw significant growth in our controlled-environment agriculture with the expansion of the AgriPlay Innovation Centre and the attraction of German based InFarm. With technological advancement and the ability to farm in less conventional ways, The City of Calgary continues to work closely with organizations pursuing urban agriculture to assist them in the development process. In 2021, there was greater uptake in vertical farming initiatives across Calgary with numerous organizations choosing Calgary as a place of business. GoodLeaf Farms, for instance, announced that they will be building its biggest indoor farm in Calgary and in accordance with the Alberta government's \$10 million Investment and Growth Fund, has received a provincial grant of \$2.73 million. This will be their first warehouse in Western Canada and through their business model, they will be able to farm year-round, use less water than traditional ways of farming and produce a higher product yield.

Building on its success from 2020, The City continued the streamlined patio process to support businesses that wanted to continue operating through COVID-19 restrictions. Fees continued to be waived and feedback has been collected to support a more consistent standardized process in 2022.

Progress and performance measurement

KPI #1: Perceptions of businesses that it's "easy to do business" in Calgary

As noted above Calgary Economic Development regularly conducts perceptions research with audiences within Canada and specific international markets with the objective of monitoring shifts in how talent and business leaders perceive Calgary. Part of this research includes looking at measures related to how business leaders in external markets perceive doing business in Calgary. Perceptions are an important measure in understanding if opportunities for improvement exist.

Of those leaders surveyed, any that had done business in Calgary and other parts of Canada were further asked to compare doing business in Calgary compared to other Canadian cities. All jurisdictions felt that doing business in Calgary was either better or the same as doing business in other Canadian cities with leaders in international jurisdictions overwhelmingly indicating that Calgary was better compared to other Canadian cities.

Indicator	Business Leaders (agree/strongly agree) ⁶⁰
Calgary is a good place to do business	77% (3% increase from 2020)
Calgary has a diverse economy that can support other industries	76% (7% increase from 2020)
Calgary is a low-cost jurisdiction to do business	65% (4% increase from 2020)
Calgary's economic outlook is uncertain	60% (2% increase from 2020)

KPI #2: Enterprise Area results

The City Centre Enterprise Area applies to downtown Calgary and Beltline. This area is where the change of use, additions, or modifications to a building is exempt from requiring a development permit. Areas like these in Calgary reduce time and costs to businesses and streamline impediments to growing a business. In 2021, a pilot program was created from January 31, 2021, to January 31, 2022, that expanded a Development Permit Exemption Area (DPEA) into 3 new areas. The pilot program encompassed International Avenue, Montgomery, and Sunalta; the DPEA data below for the pilot program is aggregated data for these 3 communities.

Indicators	2021	2020
Customer time saved	City Centre: 2,243 days DPEAs: 12 days	City Centre: 3,209 days
City of Calgary staff time saved	City Centre: 312 days DPEAs: 12 days	City Centre: 345 days
Fees saved	City Centre: \$51,843 DPEAs: \$9,342	\$36,000 ⁶¹

2022 actions planned

With the success of the pilot program for the Business Experience Representative (BER) to assist new businesses in the Restaurant/Brewery industry The City has moved this into a permanent department with six BERs and one senior BER. With this new role, The City will be able to expand the scope to assist more new businesses within The City of Calgary.

Continuing to build on the learnings from the filming environment and processes current state assessment, The City has implemented some short-term improvements including increasing the availability of master account payments, clarifying expectations for various permits,

⁶⁰ This table includes data for all markets that were surveyed in Calgary Economic Development's External Perceptions research. These markets were: Vancouver, Toronto, Montreal, Waterloo/Kitchener, Ottawa (Canada), Austin, Houston, Denver, Seattle, Silicon Valley (United States), London (United Kingdom)

⁶¹ The dollars in fees saved would have equalled \$73,000 without the May permit fee waiver, a special support for businesses during COVID-19.

streamlining processes, and simplifying agreements with The City. In 2022 the core project team will work on the governance structure and future state design recommendations from 2021.

Calgary Economic Development's Trade Accelerator Program (TAP) is excited to have its first cohort for Indigenous-led businesses in partnership with TAP Edmonton, Saskatchewan, and Winnipeg. They're also expanding into the Banff/Canmore region for their first cohort there. With six cohorts scheduled for 2022, the TAP Calgary alumni list over 300 companies. The TAP team will be hosting six Export Meetups which are networking events for TAP alumni, trade experts, and community partners, and wrap up the year with the second annual Calgary Trade Export Awards to be held in December.

The Government of Alberta has also signalled its commitment, with Bill 13 the *Financial Innovation Act*, to reducing regulatory barriers for entrepreneurs to test products in emerging fields of cryptocurrencies and online banking, termed a 'regulatory sandbox'. The sandbox would allow companies to temporarily break or ignore select financial rules and regulations under close government supervision to test new programs. The sandbox model has been allowed in jurisdictions like the United Kingdom, Hong Kong, Australia and Arizona. If passed, Bill 13 would make Alberta the first Canadian province to have this structure.

CONCLUSION

2021 was undoubtedly a challenging year globally, nationally, and for Calgary, from an economic, social, and environmental perspective. And yet, this year's Annual Progress Report on Calgary in the New Economy showcases the unmatched spirit of Calgarians, and the refusal to give into what could have been, forging ahead, tackling each challenge as it came. 2021 continued to demonstrate the compassion, resilience, and determination of Calgarians. Conversations with leaders across several sectors, with members of the community, pressure-testing the economic strategy, all reinforced that Calgary in the New Economy remains the right path for Calgary as we strive to be the place for bright minds and big ideas to come together with an unmatched spirit to help solve global challenges. There's an energy and excitement in the city, a buzz to do something big; it's feeling alive and vibrant.

There is great momentum to build on from 2021 that's already being realized in 2022 as showcased throughout this report, with more exciting opportunities to come. 2022 is shaping up to be another record-breaking year for Calgary in many ways.