

Calgary in the New Economy

Calgary Economic Development's collaborative energy makes us a conduit, connector, catalyst and storyteller for the city of Calgary.

14 MAY 2019 PROGRESS REPORT TO PRIORITIES AND FINANCE COMMITTEE

PFC2019-0604
ATTACHMENT 2

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Executive Summary

Calgary in the New Economy is our broad strategy to be the city of choice for the world's best entrepreneurs. We embrace innovation and create solutions to meet the world's greatest needs in seven critical sectors: energy, agribusiness, transportation & logistics, tourism, creative industries, life sciences and financial services.

The momentum built through the stakeholder engagement process for the Economic Strategy *Calgary in the New Economy* has carried over into implementation. Several initiatives in the Economic Strategy required immediate attention. In the almost 12 months since adoption by Council, we restructured and reconstituted the Leadership and Implementation Team (LIT); created Area of Focus Leadership Teams for the four pillars: Innovation, Talent, Place and Business Environment. These teams have identified: priorities, performance measures, resources, "quick wins" and garnered stakeholder support. These stakeholders have committed to be champions for the Economic Strategy, leading its implementation within their organizations and sectors. They recognise and accept *Calgary in the New Economy* as the North Star in a community wide approach to building economic resilience and future prosperity.

The first year of implementation included:

- Leadership and Implementation Team (LIT) accepted the Charter (Appendix A) and was reconstituted; including Area of Focus Leadership Chairs and augmented private sector participation with members of the CEO Roundtable
- Leadership Teams established for each of the four areas of focus (pillars) and initial meetings held by October. Each has established priorities, confirmed measures and set out action items
- Opportunity Calgary Investment Fund decisions are aligned with pillars and key sectors in the Economic Strategy. It was evident in the first three funding announcements: MobSquad (Talent), Attabotics (Innovation, Transportation & Logistics) and Life Science Innovation Hub (Innovation, Life Sciences)
- The Government of Alberta established the Talent Advisory Council on Technology, with funding for 3,000 new tech training seats in post-secondary institutions and allocated 216 of the 400 initial seats in Calgary
- The Government of Canada allocated more than \$800 million to work integrated learning (Talent) and \$100 million to the Clean Resource Innovation Network (Innovation)
- The Calgary Innovation Coalition received \$2.2 million from the Government of Alberta to strengthen our innovation ecosystem

Leadership Teams in each area of focus have established working groups to address their priorities, including:

- Labour force information, talent acceleration and work integrated learning
- Educating Calgarians on business opportunities through adopting digital, coordinating the innovation corridor, advancing large enterprise opportunities through artificial intelligence/machine learning (AI/ML) and facilitating early adoption of local technology by large enterprise

- Enhancing the vibrancy of downtown and promoting downtown as a place to work in the new economy
- As a City, putting the tools and procedures in place to facilitate business and build a living lab

Headline metrics with baselines have been established.

TALENT	INNOVATION	PLACE	BUSINESS ENVIRONMENT
Unemployment Rate: 7.7% (2018) Technology Employment: 42,100 (2017) Net Migration 20-39: 8,950 (2017/18)	Number of Startups in Calgary: 150-250 (2018 estimate) Venture Capital deals: \$126 million (2018)	Great place to make a life: 83% (2018) Downtown population: 43,492 (2018)	Number of businesses in Calgary: 51,042 (Dec 2018)

And there are many success stories to share:

- Additional technology education deployed through community efforts (EvolveU) and the post-secondaries and launching www.calgaryupskill.ca, an interactive career planning tool
- Robogarden partnered with Calgary Board of Education to bring coding education to Calgary students
- CADA partnered with TRICO Changemaker Studio to launch Artist as Changemaker Program
- UCalgary secured ownership of the University Research Park and, with support from Opportunity Calgary Investment fund, launched the Life Science Innovation Hub
- Ground broken on Platform
- Opportunity Calgary Investment fund invested in ATTAbotics and mobsquad advancing the innovation and talent goals of the strategy
- Homegrown fintech firm Solium Capital sold to Morgan Stanley for \$1.1 billion
- Real estate firms purchase Sunlife Plaza and Stephen Avenue Place as opportunities for revitalization
- Downtown Library opened, and the old library was repurposed as a community hub for School of Architecture
- Hosted 2018 GO Media Canada Conference
- Calgary listed as top place to visit by New York Times
- CADA and Tourism launched Remarkable Experience Accelerator Program
- City of Calgary established both Business Advisory Committee of Council and a Business and Local Economy Team
- Calgary become first metropolitan municipality to initiate a one window online approach for all business permit applications
- Pop-up and interim uses without the need for permit applications was passed city-wide
- 20 companies accessed city infrastructure to test products through the Living Lab initiative

Introduction

After experiencing a return to GDP growth and the appearance of an economic recovery in 2017, our economy slowed last year to the national average. In 2018, Calgary's GDP was \$115.7 billion, almost level with the \$116.5 billion prior to the downturn and restructuring of the energy sector that began in 2014. Employment improved in 2018 from 838,600 in January to 842,600 in December, but most attention was on a 7.7 per cent unemployment (unchanged), one of the highest among major cities in Canada, and a downtown office vacancy rate that remained in excess of 25 per cent at year-end.

This uncertainty was the backdrop to the update of the Economic Strategy in 2017 and the first half of 2018. The headwinds facing our core oil and gas industry continued and global trade was at the top of the political agenda as Canada concluded NAFTA 2.0 negotiations with the United States and Mexico amid a growing protectionist sentiment. An even greater disruptive force is the technological change that continues alongside Calgary while it gains momentum in the development of new technologies and companies, and adoption of innovative technology in our core industries.

History

Calgary's first 10-year Economic Strategy *Think big. Act bold. Create great* was launched in 2008 at the peak of one of the longest and largest cycles of growth in the city's history. In 2014, an update *Building on our Energy* was approved by Council with three main goals – purposeful diversification, shared prosperity and strong community. Almost 90 per cent of the tactics in the strategy were under way or completed.

In the second half of 2014, an historic drop in oil prices was the impetus for a structural reform of the industry globally. The inability to build export pipelines in Canada exacerbated the challenges for the sector in Calgary. The industry shed tens of thousands of jobs. Downtown office space, built on the assumption of growth, is more than 25 per cent vacant.

In June 2018, City Council approved the ambitious Economic Strategy, *Calgary in the New Economy*. It was developed over 18 months with input from more than 1,800 Calgarians and remains committed to our city's core values – inclusiveness, entrepreneurship and community spirit. It is built around four pillars of long-term prosperity – Talent, Innovation, Place and Business Environment.

Calgary is the city of choice in Canada for the world's best entrepreneurs. We embrace innovation and create solutions to meet the world's needs in food, health, energy and transportation.

In the development of the Economic Strategy, the team was focused on areas that enable economic development. Through these efforts, *Calgary in the New Economy* moves the strategy from the previous six areas of focus to four.

2014 strategy covered six areas of focus ("energies")

Global	Leveraging energy expertise to bolster the economy and establish themselves as a global energy hub
Entrepreneurial	Supporting the development of alternate industries to reduce dependency on energy
Innovative	Fostering increased technology and innovation output, through better funding and support services
People	Reducing income inequality and improving employment opportunities for disadvantaged groups
Community	Investing in better infrastructure and facilities to create a vibrant, livable, accessible city
Collaborative	Building better partnerships between the Calgary's many private, NFP, and public organizations



2018 strategy has narrowed focus to four key topics



Talent

Calgary is Canada's destination for talent



Place

Calgary is Canada's most liveable city



Innovation

Calgary is Canada's leading B2B innovation ecosystem



Business environment

Calgary is Canada's most business friendly city

Industry Cluster & Disruptive Technologies

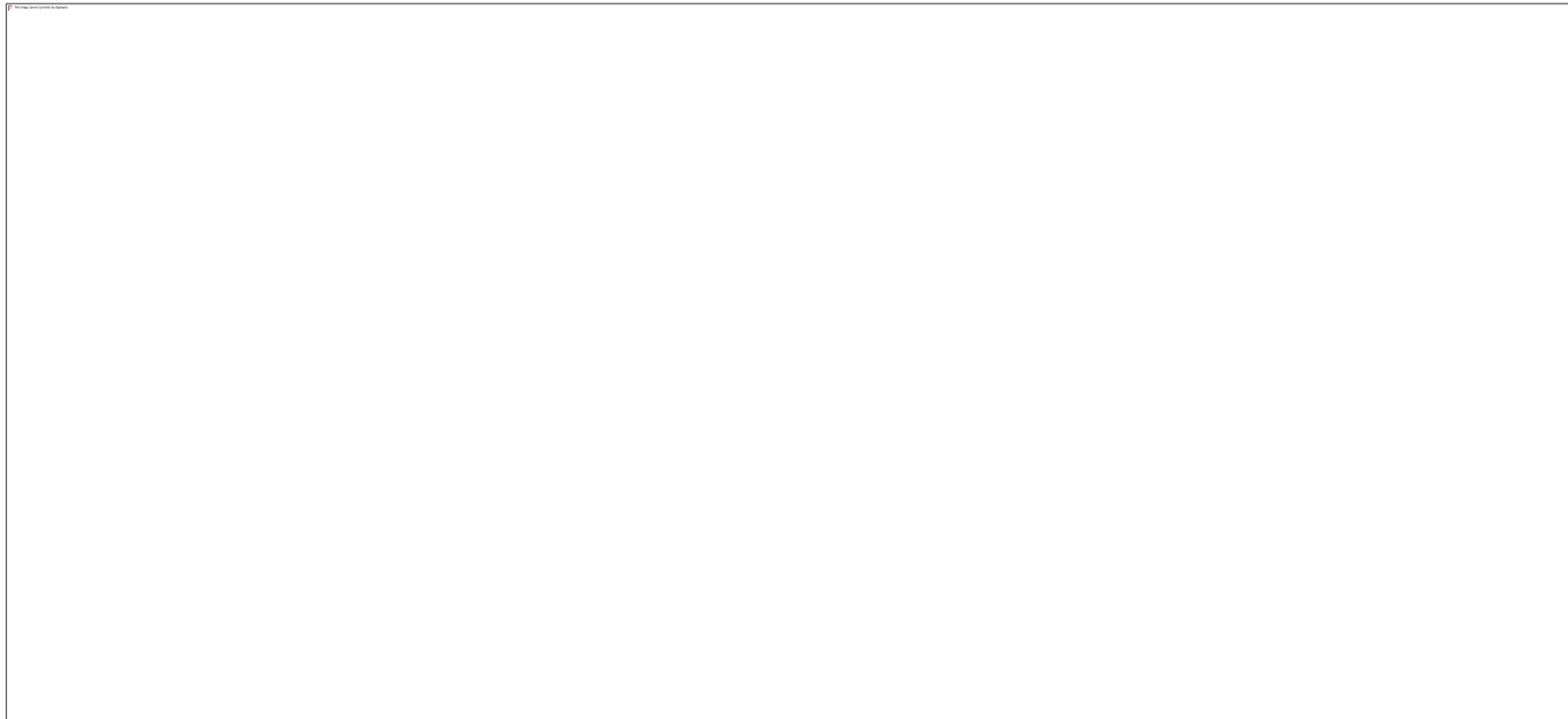
Calgary in the New Economy includes a deep dive into Calgary's industries through a cluster analysis. Clusters include interrelated firms and industries characterized by buyer-supplier relationship as well as a skilled workforce and institutions. The energy sector in downtown Calgary is an example of a long-established and highly integrated ecosystem.

Seven industry clusters form the foundation of Calgary’s economy and offer significant opportunities for growth.

- **Energy:** Despite declining employment the cluster remains a significant employer and champion of innovation
- **Agribusiness:** high employment concentration and champion of innovation
- **Transportation and Logistics:** high employment concentration and champion of innovation
- **Tourism:** experiencing growth in visitation and success in sporting events
- **Creative Industries:** strong growth in film and television production as well as hosting music events
- **Life Sciences:** rapid global growth while accounting for half of research spending at University of Calgary
- **Financial Services:** top four market in Canada and Calgary’s second most productive industry (earnings per capita)

Since the adoption of *Calgary in the New Economy* in June 2018, Calgary Economic Development and our community partners have conducted further research to better understand the disruptive technology opportunities, mostly digital, across the seven clusters. These technologies apply to any industry to increase efficiencies and safety.

The following chart represents our understanding of cross-sector opportunities in Calgary. Realizing these opportunities will require revisiting the elements present in the healthy ecosystems in our core industries to ensure they are in place for disruptive technologies. These elements include businesses from startup through scaleup to established companies; talent, research and accelerators; funding; and a supportive regulatory environment.



Alignment and Engagement

The Economic Strategy provides guidance to the community and all orders of government for long-term planning and collaboration. From the outset, Calgary Economic Development worked closely with The City of Calgary, civic partners and community stakeholders to ensure the Economic Strategy aligned with other initiatives of The City of Calgary. The following strategies are all embedded in *Calgary in the New Economy*:

- Citizen's Priorities
- Resilience Strategy for Calgary
- Capital Infrastructure Investment Principles

- Municipal Development Plan/Transportation Plan
- Goods Movement Strategy and Industrial Land Strategy
- Recreation Master Plan and Open Space Plan
- Downtown Strategy for Calgary and the Centre City Plan
- Culture Plan and Living a Creative Life
- Enough for All and Affordable Housing Strategy
- Destination Strategy
- Calgary Metropolitan Region Board

Calgary in the New Economy is a community strategy. Among the hundreds of contributors, more than 80 individuals participate on the Leadership and Implementation Team and in working groups.

Implementation

After determining implementation by the community would be the most productive approach, Calgary Economic Development, as stewards of the Economic Strategy, supported the convening of Leadership Teams and work them to achieve action. *Calgary in the New Economy* is a framework for guiding the community in their work. This framework presents initiatives in terms of immediate, medium, or longer-term priority.

All initiatives required immediate commencement of activity. However, some take time to gain momentum and strength. Calgary is an action-oriented community. In almost all cases, stakeholders have led the charge and measurable outcomes can be seen in most areas. There is an important role for Calgary Economic Development and stakeholders to be ambassadors of the Economic Strategy. In this way, those not directly associated to the Leadership Teams can initiate actions that lead the community to achieve our overall goals.



Timelines

In the first 12 months, we committed to restructure and reconstitute the Leadership and Implementation Team, create sub-committees, identify priorities, identify potential “quick wins”, gain support of stakeholders in championing the Economic Strategy, and establish an implementation plan and resourcing.

The first year of implementation saw numerous activities established and underway.

- Leadership Teams for each of the areas of focus (pillars) were established and initial meetings held by October. The four area of focus Leadership Teams all had four meetings in year one
- LIT was reconstituted including chairs of the areas of focus and augmented private sector participation with members of the CEO Roundtable
- Each area of focus Team has identified priorities and created working groups to address the priorities. They are identifying outcomes, milestones and implementation timelines

- Opportunity Calgary Investment Fund decisions are aligned with pillars and key sectors in the Economic Strategy. It was evident in the first three funding announcements: MobSquad (Talent), Attabotics (Innovation, Transportation & Logistics) and Life Science Innovation Hub (Innovation, Life Sciences)
- The Government of Alberta established the Talent Advisory Council on Technology, with funding for 3,000 new tech training seats in post-secondary institutions and allocated 216 of the 400 initial seats in Calgary
- The Government of Canada allocated more than \$800 million to work integrated learning (Talent) and \$100 million to the Clean Resource Innovation Network (Innovation)
- The Calgary Innovation Coalition received increased funding from the Government of Alberta to continue strengthening the innovation ecosystem in Calgary

Leadership and Implementation Team

The Leadership and Implementation Team is chaired by Adam Waterous and Steve Allan and is comprised of senior leaders from all orders of government, non-profit and private sectors and other key community stakeholders (Appendix B). Key responsibilities include:

- Influence and mobilize stakeholders and resources to support the Economic Strategy
- Identify economic, social or organizational changes that will influence outcomes and impact of the Economic Strategy
- Share and promote the Economic Strategy within their sphere of influence.

The initial meeting for LIT was in December 2018 where the members identified their priorities as champions of the Economic Strategy, supporting communications for it, and supporting talent attraction efforts, as seen in the Charter (Appendix A).

Measuring Progress

In setting performance metrics, it is important to choose measures that can be measured consistently over time and available for each reporting period. The City of Calgary utilizes Results Based Accountability which distinguishes between the well-being of whole populations (the city of Calgary) and the well-being of client populations (the organizations engaged in implementing *Calgary in the New Economy*).

The Economic Strategy adopted in 2014, measured progress against 14 population-based indicators in three categories: sense of community, purposeful diversification, and shared prosperity. For many indicators, continuing to measure progress is problematic with data not available annually or being discontinued. *Calgary in the New Economy* tracks city wide measures across its four pillars: Talent, Innovation, Place and Business Environment.

The previous strategy reported on core indicators meant to answer, “How are Calgarians better off?”. Now, core indicators will reflect progress in the four areas of focus. In addition, performance indicators will be developed to reflect progress toward key initiatives. Detailed actions will be conveyed through activity reporting and storytelling. The hierarchy of performance indicators are:

TALENT	INNOVATION	PLACE	BUSINESS ENVIRONMENT
Unemployment Rate Technology Employment Net Migration (20-29)	Number of Startups In Calgary Deal Flow/Financing in Calgary	Percentage ranking Calgary Great place to make a life Downtown population	Number of businesses in Calgary
<ul style="list-style-type: none"> • STEM enrollment • #/% Foreign students • K-12 student awareness of STEM • Hires from attraction missions 	<ul style="list-style-type: none"> • Rainforest Score • Funds raised by technology companies • Early adoption arrangements • Emerging Sector companies attracted 	<ul style="list-style-type: none"> • Downtown business count • Occupancy permits • Economic activity from events • Population living under LICO-AT 	<ul style="list-style-type: none"> • % Building permits issued within 21 days • Companies accessing infrastructure through Living Labs

Mapping Performance Measures against Resiliency Funding and Building on our Energy

The 2014 economic strategy was structured on six “Energies”, or areas of focus. It provided the framework for a three-year grant to Calgary Economic Development (Resilience Funding) to accelerate implementation, and enhance business development and attraction efforts in energy, transportation and logistics, creative industries, agribusiness, real estate and emerging technologies. Council directed reporting on that funding be included in the Economic Strategy progress report. This reporting was included in Calgary Economic Development’s Civic Partner Report and can be found in Appendix C.

Area of Focus: Talent

The Talent Leadership Team — co-chaired by Drs. Elizabeth Cannon/Ed McCauley, David Ross and Greg Bass — is comprised of the four largest post-secondary institutions in Calgary, representatives from the secondary school system, Government of Alberta, Western Economic Diversification and the private and non-profit sector. This group is closely connected to Alberta’s Talent Advisory Council on Technology as well as the federal Future Skills Council. Membership of the Talent Leadership Team is in Appendix D. With *Calgary in the New Economy* providing direction, the following objectives have been established:

- Increase community understanding of the Calgary labour market
- Create and deploy development pathways to in demand skills

- Strengthen linkages between post-secondary and young technology firms
- Enhance experiential learning programs across the community
- Advocate for Calgary in provincial and federal programs and funding allocations
- Leverage funds and seek co-investment to achieve community goals

At the time of approval by Council, *Calgary in the New Economy* suggested talent metrics might include unemployment rate, net migration rate for those aged 20 – 29, and number employed in technology fields. Unemployment rate, net migration rate as well as the number employed in technology fields are representative of population-based accountability metrics that are available annually. The Team is considering other possible metrics.

The Performance Accountability Metrics will represent activities in each component of the Talent area of focus.

CALGARY'S UNEMPLOYMENT RATE REMAINED UNCHANGED AT 7.7 PER CENT FROM JUNE 2018 TO MARCH 2019.

EMPLOYMENT IN TECHNOLOGY FIELDS (UTILIZING CBRE SCORING CANADIAN TECH TALENT) DECLINED FROM 40,300 IN 2015 TO 36,500 IN 2016 BEFORE INCREASING TO REACH A TEN-YEAR HIGH TO 42,100 IN 2017.

NET MIGRATION AGED 20-39 (ESTIMATED EACH YEAR JULY 1) INCREASED FROM 5,816 IN 2016/17 TO 8,950 IN 2017/18. THIS IS FAR BELOW THE PEAK OF 13,355 REACHED IN 2013/14. DURING THIS TIME INTERNATIONAL MIGRATION HAS REMAINED CONSISTENT WHILE INTERPROVINCIAL MIGRATION DECLINED BY -765 IN 2016/17 AND RECOVERED TO 903 IN 2017/18.

Create Canada's Largest Talent Accelerator

How much did we do? (Activities)	How well did we do it? (Outcomes)
<ul style="list-style-type: none"> • SAIT, Bow Valley College and UCalgary all developed new digital diploma, degree and post-graduate certificate programs to meet employer needs • Community and private sector programs expanded or launched in 2018 include EvolveU, Robogarden and Lighthouse Labs 	<ul style="list-style-type: none"> • SAIT enrollment grew to over 550 in target programs • Bow Valley College will double enrollment in Data Analytics • EvolveU 9 of 11 in first cohort hired. Second cohort 42 students (3 hired before completions) • Overall STEM enrollment declined from 4,110 in 2016/17 to 3,840 in 2017/18 • Calgary was allocated 216 of 400 new technology seats funded across Alberta
<p>Story behind the baseline: The growth of the digital sector in Canada is expected to continue to outpace other market segments, according to the Canadian and Alberta governments and independent research companies, such as Forrester's and the Information and Communications Technology Council of Canada. The update to the Economic Strategy included a review of data, secondary research and community and stakeholder engagement sessions to understand our talent needs. This process acknowledged Calgary has a highly educated population with a</p>	

concentration of engineers, but our talent pool isn't perfectly matched to the new economy. The Strategy suggests Calgary create Canada's largest talent accelerator to:

- Expand work-integrated learning
- Collaborate with PSIs and other providers to design programs aligned with business workforce requirements
- Enhance program access to diverse communities
- Pilot/scale nimble short-term programs to reskill workers

Activity highlights:

The concept of a talent accelerator is not necessarily a physical location but a coordinated and collective response to the talent needs of the community. The community response has resulted in the following notable activities:

- In September 2018, EvolveU launched a 6-month full stack developer program. The first cohort, comprising of 12 individuals with diverse backgrounds entered the program to teach 'hard' coding skills and 'soft' skills of working in a tech company. The program is closely tied to industry and includes an experiential learning component tackling a real-life question posed by Calgary companies. All but one of initial cohort secured employment. In the fall, EvolveU signed a one-year contract to provide programming for EI eligible participants. A cohort of 44 individuals began in January 2019. With future programming planned, the initiative will expand into the community space of the Central Library
- SAIT enrollment grew to almost 600 in target programs with 75 in Information Security Systems and 509 in Information Technology
- Bow Valley College will double enrollment in Data Analytics while experiencing growth in Digital Design and Software development while launching new programs in Information Security, Data Analytics, Cyber Security, and information Technology.
- SAIT has embedded a work placement coordinator in their technology training programs
- UCalgary developed new programs in Data Science and Gaming Software Development targeting those in mid-career. UCalgary Continuing Education Digital Technology programs include Business Intelligence and Analytics, Front-end Web Development, Cross-platform app development, Integrated Digital Media, IT Fundamentals, .Net Application Development, Python programming, Database Administration and Business Analysis
- Momentum developed the Tech Plus + Network and Cloud Technology Training program to include employability training, technical training and work experience. The first cohort of 12 commenced in February 2019 with the second cohort of 13 commencing in April 2019
- In 2018, CADA partnered with the Trico Changemakers Studio at MRU to create the Artists as Changemakers program. The hypothesis is that by involving artists at the beginning of a change making process, instead of at the end, powerful results will ensue. A cohort of 10 artists took part in the Social Innovation certificate program and then participated in a process of designing a Residency Program for artists to be paired with organizations tackling problems and will be launched in 2019
- The Government of Alberta additional seats funded in 2018 included:
 - SAIT Information Technology Diploma – 98, and Object-Oriented Software Development Certificate – 48
 - U Calgary Master of Software Engineering – 40
 - Bow Valley College Software Development Diploma – 30
- Launched www.calgaryupskill.ca, an interactive tool designed to inform and support mid-career oil and gas professionals to careers in Calgary's growing emerging industries
- The Government of Canada announced in the March 2018 budget considerable supports to the Innovation and Skills Plan, including support to work integrated (experiential) learning:
 - \$631 million over five years, starting in 2019–20, to support up to 20,000 new work placements per year for post-secondary students across Canada, in all disciplines, by 2021–22

<ul style="list-style-type: none"> ○ Provide Employment and Social Development Canada with an additional \$150 million over four years, starting in 2020–21, to create partnerships with innovative businesses to create up to a further 20,000 work-integrated learning opportunities per year
<p>Action plan:</p> <p>Keeping in mind that team members and the broader community will continue to undertake individual initiatives, the team formed two working groups to address labour market and skills gap information, and experiential learning. These groups will prioritize the following activities in the coming year:</p> <ul style="list-style-type: none"> • Coordinated and continuous community wide approach to labour market data collection and dissemination • Connect with other jurisdictions to understand future skills demand • Expand www.calgaryupskill.ca and support post-secondary institutions and other agencies to deploy technical training programs • Maintain consistent communication with TACT and Federal Skills Council • Map talent development initiatives in Calgary • Support Alberta Credentials Ecosystem (Talent crossover) • Support the work of Calgary Economic Development's representative to the federal Future Skills Council • Develop a coordinated response to developing experiential learning programs and recommendations of the Business Higher Education Roundtable

Establish Calgary as a magnet for students

<p>How much did we do? (Activities)</p> <ul style="list-style-type: none"> • University of Calgary, Mount Royal University, SAIT and Bow Valley College continue to implement out of province/country student recruitment strategies 	<p>How well did we do it? (Outcomes)</p> <ul style="list-style-type: none"> • University of Calgary total enrollment will increase from 28,784 to 29,072 FLE in 2021
<p>Story behind the baseline:</p> <p>In addition to the researched shortage of skilled technology workers in Calgary, Calgary has the lowest post-secondary enrollment rates in metropolitan areas in Canada and an aging population with increasing numbers approaching retirement. To face these challenges, the goal of post-secondaries in Calgary to increase overall enrollment while also increasing enrollment from outside Calgary and outside Canada. Establishing Calgary as a magnet for students includes the following components:</p> <ul style="list-style-type: none"> • Advocating for increased capacity within our post-secondary institutions • Exploring co-branded programs with global institutions • Promoting advantages of a globally diverse workforce • Continue to prepare teachers to teach STEAM programs • Secure funding for globally recognized professors 	
<p>Activity highlights:</p> <ul style="list-style-type: none"> • The University of Calgary has a dedicated student recruitment team of 13 targeting and supporting student recruitment across Canada and globally. In addition, they have developed an international recruitment strategy and task force. This will support planned enrollment growth from 28,784 Full time learner equivalents in 2018 to 29,072 in 2021 • Mount Royal University has established the goal of 65 per cent of students being drawn from Calgary, 20 per cent from Alberta, 10 per cent from Canada and 5 per cent international. To do so, focused recruitment strategies were developed including marketing 	

<p>and assignment of recruitment officers to out-of-province and international jurisdictions to visit high schools, attend events and host open houses. Internationally, Mount Royal is engaging in geo-targeted marketing campaigns tied to social media</p> <ul style="list-style-type: none"> • Mount Royal continues to strengthen general education components across all programs to ensure graduates have the interdisciplinary breadth necessary to succeed in a rapidly changing, and ever-evolving workforce • Calgary Economic Development completed a white paper to enhance local understanding of the value of hiring New Canadians
<p>Action plan:</p> <ul style="list-style-type: none"> • Advocate for sufficient government funding to accommodate learner demand. • Increase the number of STEAM programs available as well as quickly deployed short-term credential and non-credential programs.

Emphasize creativity and innovation from kindergarten to university

<p>How much did we do? (Activities)</p> <ul style="list-style-type: none"> • 39 on-site Careers in Calgary tours • Kids Code Jeunesse learn to code for educators 	<p>How well did we do it? (Outcomes)</p> <ul style="list-style-type: none"> • Over 1,000 students, teachers and career practitioners participated in STEAM tours and Tech Talks • 75 educators raised awareness of need for digital literacy in students. • Students accessing experiential learning programs
<p>Story behind the baseline: Interest in STEAM careers begins early in life and stakeholders emphasized that beyond the need for technology skills training, more is needed to raise awareness of technology careers and preparing students with a broad base of skills for an ever-changing work environment. Technology careers are not only in coding and web development but also in 'technology adjacent' areas such as product development/management, project management and low/no code applications. <i>Calgary in the New Economy</i> put forward the following components of emphasizing creativity in kindergarten to university:</p> <ul style="list-style-type: none"> • Grow work-integrated learning partnerships for STEAM careers • Increase capacity to teach STEAM programs • Enhance programs encouraging underrepresented participation in STEAM learning • Develop after school programs with talent accelerator 	
<p>Activity highlights:</p> <ul style="list-style-type: none"> • Calgary Economic Development supported Kids Code Jeunesse and Lighthouse Labs in hosting Code, Create, Teach introducing basic coding principles to teachers in Calgary • Calgary Public Library hosts Coding Buddies and Code Club for children in grades 1-3 and 4-6 respectively • Calgary Economic Development continued the Careers in Calgary program to raise awareness of STEAM career opportunities in Calgary. This includes on-site interviews, site tours and organized Tech Talks • Calgary Economic Development is supporting St. Mary's University to develop a digital literacy program for all of their students • RoboGarden partnered with the Calgary Board of Education to bring coding education to Calgary students • Held a Career Exploration and Innovation Alley informing 120 participants in opportunities and skills required • Supported eight best practice career opportunity sessions with Immigrant Services Calgary, SAIT, UCalgary and the Government of Alberta • Additional programs available in Calgary include: Canada Learning Code, EdgeMakers (Rundle and West Island College), JunioTech Robotics, Calgary Game Developers Academy for Youths, Calgary Coding School, LaunchPad Learning, Engineering for Kids 	

Action plan: <ul style="list-style-type: none"> Additional outreach in the community to understand existing programs and plans to expand or deploy new programs Stronger connections between industry and educational programming for students to learn about opportunities in technology in Calgary

Address immediate needs through attraction efforts

How much did we do? (Activities)	How well did we do it? (Outcomes)
<ul style="list-style-type: none"> Two out bound talent attraction missions with employers Two in bound talent attraction missions with employers 	<ul style="list-style-type: none"> 7 hires throughout bound attraction missions 15 hires through in bound attraction missions
Story behind the baseline: <p>Technology companies in Calgary have noted the acute need for more senior talent, meaning those with more than five years' experience in a technology company or working with technology solutions. It was evidenced by Benevity recruiting its president from SAP in Seattle. Though junior roles can be addressed through local training programs and building a talent pipeline, senior roles are more effectively addressed through attraction efforts. Addressing these needs through attraction efforts involves:</p> <ul style="list-style-type: none"> Building and executing talent attraction campaigns targeting senior technology leaders Attract companies to serve as magnets for students 	
Activity highlights: <ul style="list-style-type: none"> Calgary Economic Development provided support to Jacobs Engineering as a Global Talent Stream referral partner supporting the relocation of 40 foreign workers and families to Calgary and securing a project providing over 100 jobs to local displaced oil and gas professionals. We also supported another five companies as a Global Talent Stream referral partner Calgary Economic Development organized five employers to join us at a technology job fair in Toronto, including presentations at universities (Ryerson, Toronto and Waterloo) Organized 13 employers to join mission in Vancouver including visits with faculty from post-secondaries (Victoria, UBC, BCIT) Facilitated two in bound attraction missions with VanHack resulting in 15 intermediate candidates from Brazil being offered jobs in Calgary Calgary Economic Development has significant talent attraction components to major activations in 2019 including Collision in Toronto – North America's largest technology conference Global Talent Attraction established in Calgary recruiting technology talent from India in the Canadian market Opportunity Calgary Investment Fund invested in MobSquad, taking advantage of Calgary talent and attracting talent to the market to be deployed on remote contract roles 	
Action plan: <ul style="list-style-type: none"> Launch significant talent attraction missions in targeted cities in North America, Europe and India Continue pursuing business investment attraction that serves as a talent magnet (Google, Microsoft, IBM, etc.) 	

Area of Focus: Innovation

Calgary has made considerable progress in putting in place the building blocks of a networked innovation ecosystem. The city is home to numerous head offices, an active community of investors, innovation enablers and a growing number of motivated startup companies. The City of Calgary's civic partners have been investing in the innovation ecosystem. Calgary Economic Development acquired and strengthened the offerings of Startup Calgary, while Platform Calgary (formerly Calgary Technologies Inc.) has enhanced programs available to help businesses scale. Although considerable momentum has built up over the last two years, challenges remain for Calgary to catch up and lead the country in innovation:

- Our universities conduct excellent research, yet we lack connections between research institutions, industry and entrepreneurs to commercialize research
- We are falling behind other cities in generating start-ups
- Venture capital funding is well short of other cities

The Innovation Leadership Team — co-chaired by Judy Fairburn and Terry Rock — is comprised of public and private sector stakeholders including representatives from early stage and large enterprise companies, family foundations, innovation entities and the city and government of Alberta. The membership of the Innovation Leadership Team is included in Appendix D. With *Calgary in the New Economy* providing a framework for the direction of the Team, the following objectives have been established:

- Educate Calgarians on business opportunities in adopting digital with compelling success stories
- Advance opportunities and address challenges of large enterprise through digital (e.g. artificial intelligence)
- Facilitate early adoption of local technology by large enterprise
- Strengthen connectivity between service delivery agencies
- Establish Calgary as the place where businesses can transform
- Enhance access to talent and experiential learning programs (Talent crossover)
- Advocate for Calgary in provincial and federal programs and funding allocations

At the time of approval by Council, *Calgary in the New Economy* suggested innovation metrics might include number of startups, number of technology companies and number employed by technology companies. With effort and considerable community collaboration the number of technology startups can be tabulated. A broader count of "technology companies" in Calgary would be challenging as there is no commonly accepted definition of technology company.

Similarly, the number employed by technology companies would be difficult to quantify. The Innovation Team has considered performance measures suggesting deal flow and financings, along with the number of startups in the community and early adoption arrangements, would be appropriate population-based accountability metrics.

STARTUP GENOME ESTIMATES THERE ARE 150 – 250 STARTUPS IN CALGARY (GLOBAL AVERAGE IS 1010 IN SURVEYED COMMUNITIES).

PWC CBINSIGHTS IDENTIFIED \$126 MILLION IN VENTURE CAPITAL DEALS IN CALGARY IN 2018. THIS IS UP 23 PER CENT FROM 2017 AND REPRESENTS 59 PER CENT OF ALL DEALS IN THE PRAIRIES BUT ONLY 3.5 PER CENT NATIONALLY.

Create the Calgary Innovation Corridor

How much did we do? (Activities)	How well did we do it? (Outcomes)
<ul style="list-style-type: none"> Startup Calgary hosted 80 Ideation Events including monthly meet ups, office hours, Startup Weekend and Launch Party Startup Calgary held 188 one on one meetings with entrepreneurs Platform Calgary assisted 445 founders and companies Rainforest Alberta hosted monthly meetups and their annual community conversation 	<ul style="list-style-type: none"> 4,000 participants in Startup events Rainforest score decreased to 599 from 621 Platform Calgary net promoter score is 46 'good'
<p>Story behind the baseline:</p> <p>In response to the need for enhanced connectivity in the innovation ecosystem and provide a visible entity recognized by local participants and external investors alike, <i>Calgary in the New Economy</i> proposed developing the Calgary Innovation Corridor. It would address key challenges facing the community and build connections between ideas and financial capital. Calgary's downtown will be the central node and serve as a place that cultivates networks and enhances collisions between startups, large business, potential customers, academia and capital. The downtown will anchor nodes of activity extending from Fuse33 Makerspace and International Avenue, SAIT and ARIS, The University of Calgary and Mount Royal University, all connected by mass rapid transit.</p> <p>Initiatives suggested in building the Innovation Corridor include:</p> <ul style="list-style-type: none"> Create more enterprise connections for startup and scaleup companies Build on existing assets to connect and expand innovation places and spaces in the downtown core Find creative ways to provide access to workspaces 	
<p>Activity highlights:</p> <ul style="list-style-type: none"> The City of Calgary launched the Max Transit routes connecting Mount Royal University and 17th Ave SE (International Avenue) with downtown (and by extension SAIT, UCalgary and the University Research Park) via mass transit In March 2019, the Calgary Innovation Coalition (CIC) was awarded a \$2.2 million grant under Alberta Innovates' Regional Innovation Networks program for 2019/20. This funds CIC programs and services delivered by Platform Calgary, SAIT, Venture Mentoring Service of Alberta, RainforestAB, and the CICs Program Management Office. This funding augments City of Calgary funding to civic partners including Calgary Economic Development and Platform Calgary. Formed in 2016, the CIC now comprises 18 Calgary innovation ecosystem service providers. It is governed by CIC Fellows which include representatives from A100, Calgary Economic Development, Platform Calgary, SAIT, UCalgary, as well as two independent entrepreneurs UCalgary secured ownership of the University Research Park and, with support from the Opportunity Calgary Investment Fund and Western Economic Diversification, launched the Life Science Innovation Hub Alberta Enterprise Corp. completed a provincial deal flow study revealing 767 technology companies in Calgary (62 per cent of Alberta's total) 	

<ul style="list-style-type: none"> Platform (building) located next to the Central Library and the National Music Centre began construction Calgary has experienced an explosion of meetups including meetups in artificial intelligence, blockchain and augmented/virtual reality. Expansion of technology company workspaces include Edison, Oxworks and Worknicer InterGen supports entrepreneurs through mentoring with network of retired and transitioned business executives
Action plan: <ul style="list-style-type: none"> Continue to develop and distribute the Calgary Innovation Coalition ecosystem map Enhance collaboration in program delivery to better serve early stage entrepreneurs Develop programs and coordination for scaleup entrepreneurs Support Rainforest AB in achieving a 'Rainforest Score' of 800 Develop marketing materials on the Innovation Corridor for external investors

Build funding to support generational growth

How much did we do? (Activities) <ul style="list-style-type: none"> 72 entrepreneurs qualified to apply for Alberta Innovates AEI vouchers 2 new funds launched, and 1 new venture capital company enters Alberta market 	How well did we do it? (Outcomes) <ul style="list-style-type: none"> 46 startups approved for vouchers with 22 already utilizing the vouchers Approximately \$126 million in venture capital raised by Calgary technology companies Calgary startups attract half of all capital raised in Alberta Additional \$180 million capital funds 'available' to Calgary startups
Story behind the baseline: <p>An important aspect to a robust business ecosystem is the ability for early stage entrepreneurs and scaling companies to access capital for product development and validation and to support their company's growth. At the ideation and concepting stages entrepreneurs typically self-fund and seek friends and family for support. As they move into commitment, funding is accessed through government grants, crowd funding and potentially angel investors. Angels continue their support through the validation phase and at this point the entrepreneur may access Series A funding from venture capital organizations. As the company begins to scale Series B will be secured and the company may go public.</p> <p>Additional knowledge and quality deals are needed in Calgary to fully access scaleup capital and support company growth. Initiatives suggested by Calgary in the New Economy included:</p> <ul style="list-style-type: none"> Pursue new funding models for startups and scaleups including creation of Canada's largest community-built fund to support companies as they grow Educate investors in the innovation space Facilitate the entrance of global capital to the market 	
Activity highlights: <ul style="list-style-type: none"> Creative Destruction Labs (CDL) Rockies 2017/18 'Prime' cohort (no specific vertical) included 25 companies who raised approximately \$14 million and created 45 direct jobs in Calgary 	

<ul style="list-style-type: none"> • Opportunity Calgary Investment Fund invested \$4.5 million in Attabotics, a robotics engineering company • Sprout Fund, based in Edmonton, launched to support early stage entrepreneurs throughout Alberta • InterGen Capital, a collection of 20 high net worth individuals with support from Suncor Energy and Cenovus Energy, launched a \$6 million fund for post seed and series A investments in technology impacting the energy industry. • PWC Moneytree Q4 2018 report 23 per cent increase in venture capital deal flow from 6 to 20 deals in Alberta worth \$126 million leading PWC to write "PwC's inaugural InvestAB report shows a thriving tech scene in Alberta" September 13, 2018 • AEC tech deal flow study notes 50 per cent of investments are Calgary based with 61 per cent of startups in pre-seed, seed or Series A funding stage • Notable deals include \$3.1 million Katapult Technology, \$3.3 million Veerum, \$8.2 million Blackline Safety, \$16.0 million Circle Cardiovascular Imaging and \$78.0 million Greengate Power • Builders VC, \$172 million fund, enters Alberta
Action plan: <ul style="list-style-type: none"> • Continue to attract funding to the Alberta market • Continue to support entrepreneurs with programming to understand funding options and being prepared to 'pitch' for funding

Develop relationships within the innovation ecosystem

How much did we do? (Activities) <ul style="list-style-type: none"> • Platform Calgary's TELUS accelerator and CDL Rockies supported 27 Calgary clients • Proposed measure: Accelerator programs connected companies with enterprise clients 	How well did we do it? (Outcomes) <ul style="list-style-type: none"> • Proposed measure: Number of early adoption agreements
Story behind the baseline: Calgary is a headquarters city with robust industry clusters in energy, transportation and logistics, agribusiness, creative industries, financial services, tourism and life sciences. With disruptive, emerging technologies impacting all sectors, there is opportunity for Calgary to invest in these technologies and lead the disruptive change in our core industries. To do so, linkages between early stage entrepreneurs, researchers and large enterprise must be strengthened. Suggested initiatives in the Economic Strategy include: <ul style="list-style-type: none"> • Create and cultivate relationships between academia, enterprise, service agencies and investors • Embrace innovation in large enterprise • Align and expand programming of innovation accelerators 	
Activity highlights: <ul style="list-style-type: none"> • UCalgary, Government of Alberta, Western Economic Diversification and the Opportunity Calgary Investment Fund invested in the Life Science Innovation Hub to increase commercialization of life science technologies • September 2018 CDL Rockies added an Energy cohort of 25 companies • Alberta Enterprise Corp deal flow study noted the composition of companies in Alberta are: 42 per cent IT, 12 per cent energy technologies, 11 per cent clean technologies, 11 per cent life science, per cent industrial and 16 per cent other industries. IT verticals include service providers, business productivity, education, ecommerce and entertainment • The deal flow study also showed 48 per cent are software as a service and one in five companies are spun out of academic research with 37 per cent of those being life science companies 	

<ul style="list-style-type: none"> • The Government of Canada announced \$100 million in support of the Clean Resource Innovation Network and advancement of clean technologies in the energy sector • TELUS has funded Platform Calgary (formerly CTI) to run the TELUS Technology Accelerator annually since 2016 with the third cohort graduating April 30, 2019. During the third cohort, 9 Canadian startups added 26 jobs, 125 new customers, generated \$4.02 million in revenue and raised \$3.02 million in capital. Three of the nine startups (33%) signed agreements with TELUS, up from 17% on the second cohort. TELUS also funded the first cohort of the TELUS Technology Incubator with 16 IoT startups developing solutions enabled by TELUS's recently launched LTE-m network • The Government of Alberta announced \$100 million to advance artificial intelligence through a Calgary office for the Alberta Machine Intelligence Institute as well as funding to attract an accelerator to the Alberta market
Action plan: <ul style="list-style-type: none"> • Identify market pull in large enterprise – the challenges that need to be solved opening opportunity for technology entrepreneurs • Create corporate challenge competitions/events • Communicate Calgary's corporate challenges globally

Accelerate growth through attraction, advocacy and trade

How much did we do? (Activities) <ul style="list-style-type: none"> • Launched OCIF receiving 187 submissions in 2018 • Curated 400 qualified leads for investment attraction • Conducted 27 out bound missions in target markets • Received 17 in bound mission from potential investors • Platform Calgary submitted 13 Immigration, Refugee and Citizenship Canada (IRCC) Startup Visa program applications 	How well did we do it? (Outcomes) <ul style="list-style-type: none"> • 3 OCIF funding agreements totaling grants of \$14.5 million • 16 emerging sector companies attracted/expanded/retained • 375 direct jobs in emerging sectors created/retained • 9 of 13 IRCC Startup Visa's approved with 4 pending decision
Story behind the baseline: As Calgary's innovation and technology ecosystem itself is at an early stage, the attraction of companies could fill gaps in the ecosystem, open opportunities for talent attraction, accelerate the commercialization of research and adoption in addition to boosting economic growth, creating jobs and potentially filling downtown office space. Given the rate of startup formation per capita in Calgary is low compared to other jurisdictions, the need to import foreign entrepreneurs to augment local entrepreneurs continues. Suggested initiatives in the Economic Strategy include: <ul style="list-style-type: none"> • Attract investment and companies to fill gaps in our innovation ecosystem • Advocate for government venture capital investment and tax credits 	
Activity highlights: <ul style="list-style-type: none"> • New World Interactive marks the first successful attraction of a software gaming company to Calgary • Perfect Fit Systems, one of the Indian companies hosted by Platform Calgary as part of "The Next Big Idea" cohort that toured Vancouver, Toronto, and Calgary have decided to move their company from India to Calgary • Successfully retained Bayer and attracted the Canadian headquarter operations of Monsanto through their merger while attracting the Canadian head office of BASF Agriculture. Coupled with previous retentions/attractions of Nutrien, Saskatchewan Potash, Dow and Dupont Calgary is the Canadian Centre of Excellence in Crop Science 	

<ul style="list-style-type: none"> • retention
Action plan: <ul style="list-style-type: none"> • Build connection and reach of Calgary's technology companies • Pursue geographic focus to attraction efforts frequently visiting a smaller number of markets to raise awareness of Calgary in those markets • Deploy strategies to attract larger enterprise including deep understanding of Calgary's innovation ecosystem and the business plans of company targets to build a compelling business case for Calgary • Continue to pursue attracting foreign startup entrepreneurs via the IRCC's Startup Visa and 'Next Big Idea' programs • Build the Calgary Economic Development Action Calgary program to enhance marketing campaigns and expand activations in key markets

Area of Focus: Place

ImagineCALGARY, the 100-year vision for Calgary speaks to Calgary being "A great place to make a living, a great place to make a life." From this we can assume there is a desire for Calgary to offer a premier living environment; safe communities; a global centre for business; a centre for arts, culture and recreation; and a city that welcomes people. A city that offers these elements and communicates its sense of place will attract talent, foster innovation and lead in economic growth.

Shortly after *Calgary in the New Economy* was released, The Economist Intelligence Unit listed Calgary as its fourth "most liveable" city in the world and No. 1 in North America. The index assesses countries, regions and cities across five categories: stability, healthcare, culture and environment, education and infrastructure.

Calgary should be proud of the consistent high ranks achieved in this global assessment. However, we cannot rest on our laurels. Calgary's National Perceptions surveys tell us other Canadians feel their own city offers more cultural offerings than Calgary. We have the highest median income in the country but among the highest income gaps, and approximately one in 10 Calgarians live in poverty.

Chaired by Michael Brown, the Place Leadership Team is comprised of diverse stakeholders meant to represent all aspects of place building. Members include participants from The City of Calgary, civic partners, not for profit, private sector and business associations. A full list of the Place Team members is found in Appendix D. While the Place area of focus in the Economic Strategy is meant to cover the entire city, the Place Team decided to focus on the downtown in the near term. As such the Place Team has identified the following objectives:

- Increase vibrancy and sense of pride in Downtown
- Spur investment in the Downtown
- Include diverse voices in developing and deploying actions and initiatives

At the time approval by Council, Calgary in the New Economy suggested place metrics might include the population living in the core, overall quality of life rating (from annual Citizen Satisfaction survey) or third part quality of life rankings such as the Economist Intelligence Unit. In the spring of 2019, The City of Calgary initiated a renewed focus on the downtown with metrics considered including downtown assessment value, population, business openings and closings and pedestrian counts. Further consideration by the Place Leadership Team led to the identification of two population-based metrics reflecting overall quality of life rating as well as embracing downtown as a place to live.

CITY OF CALGARY 2018 CITIZEN SATISFACTION SURVEY REVEALED 83 PER CENT AGREE CALGARY IS A GREAT PLACE TO MAKE A LIFE

CITY OF CALGARY 2018 CIVIC CENSUS RECORDED 43,492 PEOPLE LIVING IN THE CENTRE CITY (DOWNTOWN WEST, EAU CLAIRE, DOWNTOWN CORE, CHINATOWN, EAST VILLAGE, BELTLINE)

Accelerate urbanization and connectivity in the core

How much did we do? (Activities) <ul style="list-style-type: none"> • 4 Place Leadership Team meetings • 14 interviews with property owners 	How well did we do it? (Outcomes) <ul style="list-style-type: none"> • 5,727 Downtown businesses with employees (Dec 2018) • 48,709 square feet downtown absorption (2018) while 169,618 square feet lost in the beltline (2018)
<p>Story behind the baseline: In 2007 Calgary revealed the Centre City plan laying out the vision for the Centre City as a liveable, caring and thriving place. Since then, considerable work has been undertaken to improve downtown neighbourhoods and connect them to those directly adjacent to the core (Beltline, Ramsay/Inglewood, Bridgeland and Sunnyside). To complement the vision for the Centre City, Calgary Municipal Land Corp. launched the Rivers District Master Plan in 2017. The two documents form a coordinated effort to accelerate urbanization and connectivity in the core.</p> <p>The Downtown Core is surrounded by anchor neighbourhoods offering a premier urban environment that welcomes residents and visitors through thriving arts and culture, tourism and recreation activities. There is opportunity to investigate and implement creative/partnership funding models for catalytic developments to kick-start growth and enhance connectivity between anchor and adjacent neighbourhoods. Initiatives suggested to accelerate urbanization and connectivity the core include:</p> <ul style="list-style-type: none"> • Target investment to build on existing and planned assets • Investigate funding models for catalytic development • Create a multi-agency committee to implement the vision for our downtown core • Enhance connectivity between the Core, Rivers and Entertainment District, and the Beltline 	
<p>Activity highlights:</p> <ul style="list-style-type: none"> • Conducted 14 interviews with property owners representing more than 100 downtown properties to understand investment intentions and opportunities for further investment • Revealed two opportunities for collaboration between property owners and The City to accelerate investments 	
<p>Action plan:</p> <ul style="list-style-type: none"> • Create a multi-layered map including past and planned City, profit and non-profit and institutional investments in the Downtown 	

- Increase communication with street front business to align open hours and retail programs with planned recreation and cultural events
- Conduct primary research with retailers and business tenants to understand opportunities and challenges
- Activate indoor and outdoor spaces in the Convention District
- Improve connectivity and wayfinding throughout downtown
- Develop a 'nightlife business' plan
- Host speaker series on downtown vibrancy
- Create multi-stakeholder engagement and action group for Downtown West including residents, businesses and City
- Deploy downtown and downtown west marketing campaign

Expand and enhance tourism, culture and recreation assets

<p>How much did we do? (Activities)</p> <ul style="list-style-type: none"> • CADA provided funding to 166 (up from 159) not for profit arts organizations and 76 (up from 67) individual artists in 2018 • Hosted 2018 GO Media Canada • 89 tourism related events hosted • Advanced 10 Destination Strategy initiatives in 2018 • 10,000 arts education activities for youth • 303 events hosted by Calgary TELUS Convention Centre • Library delivered 17,579 programs in Library and 4,558 programs in the community to 446,640 participants 	<p>How well did we do it? (Outcomes)</p> <ul style="list-style-type: none"> • CADA funding supported 700 full time jobs and contracts to 8,379 artists. • 40 per cent of CADA investments support agencies and activities in the downtown core. • 330,000 children participated in arts education activities • \$107 million in economic activity generated from attracted events • 90 per cent of Tourism Calgary stakeholders see as effective champion • 175,000 delegates pass through TELUS Convention Centre with \$133.8 million in economic impact. • 6.9 million visits to libraries across Calgary
<p>Story behind the baseline:</p> <p>A vibrant art and culture industry in Calgary contribute to sense of place and our ability to attract talent. Most notably, it has been shown investing in the arts can contribute to a vibrant downtown core and livable neighbourhoods. Art, culture, tourism and recreation are also important aspects of economic diversification. As stated in the Economic Impact study by KPMG in 2018, arts organizations that receive funding from Calgary Arts Development contributed \$107 million to Alberta's GDP; 1,550 full-time equivalent jobs; and generated \$16.6 million in revenues to all orders of governments. It is estimated tourism in Calgary generates \$1.6 billion in economic activity. A survey by Tourism Calgary found 85 per cent of Calgarians believe tourism contributes to the economy and quality of life. Initiatives suggested in the Economic Strategy include:</p> <ul style="list-style-type: none"> • Attract, enhance and promote premier experiences and events showcasing Calgary as the Ultimate Host City • Pursue enhanced transportation corridor linking YYC Calgary International Airport, downtown Calgary and Banff • Support the Cultural Plan for Calgary and Living a Creative Life • Continue to build on livability assets reflecting our diversity throughout the city 	
<p>Activity highlights:</p> <ul style="list-style-type: none"> • Hosted our first FINA world diving championship event • NY Times listed Calgary as one of the top 50 places to visit in 2019 	

<ul style="list-style-type: none"> • 58 future events secured including 2019 CCMA and 2020 – 2022 XGames • 28 per cent of Canadians plan to visit in next two years • City Council increased their investment in the arts for the 2019-2022 • The 2018 Living a Creative Life Congress held at the New Central Library focused on the theme of Arts for Social Change • Launched Original People's Investment Program designed with/by/for indigenous community • CADA invested \$200,500 to support development of cultural tourism products through the Remarkable Experience Accelerator Program • SpaceFinder Alberta has more than 1,000 venues listed, most in Calgary, spread out throughout the city • Released the annual Arts Professionals working in Calgary survey and Equity, Diversity & Inclusion Report on Calgary's Arts Sector • Rocky Ridge (January 2018) has 18,159 members while Seton (January 2019) has 12,468. The YMCA regional recreation centres, in partnership with The City of Calgary, are responding to community needs for active, safe and amenity-rich spaces for Calgarians of all ages and income levels to belong, grow, thrive and lead • Opera House (CMLC) began construction • Opened the Central Library with 210,000 visits in the first month while also renovating Country Hills, Memorial Park, Village Square and Country Hills and opened express libraries in Rocky Ridge and Seton YMCAs • West Hillhurst arena refurbishment • Contemporary Calgary and old planetarium
<p>Action plan:</p> <ul style="list-style-type: none"> • Align hosting of arts, cultural and sport/recreation events for maximum impact • Deploy the \$1 million cultural activation fund • Make use of the new pop-up bylaw – using empty spaces for business, art shows, performances • Develop a dashboard showing arts, cultural and sport/recreation activities in summer and winter • Conduct surveys to understand linkage between attending events and community engagement

Intentionally support diversity and inclusion

<p>How much did we do? (Activities)</p> <ul style="list-style-type: none"> • 400,000 sliding scale transit passes sold • 7,721 tax returns filed at volunteer tax clinics • 756 RESPs opened • Identified plans for 5000 affordable housing units 	<p>How well did we do it? (Outcomes)</p> <ul style="list-style-type: none"> • \$3.3 million taxes refunded • 95% of stakeholders aware of E4A goals • Below living below Low Income Cut Off After Tax (LICO-AT) declined from 10.9% in 2014 to 8.7% in 2017 rising to 8.9% in 2018
<p>Story behind the baseline:</p> <p>After experiencing contracting GDP in 2015 and 2016, Calgary remained one of the most prosperous placed in Canada on a GDP per capita basis. Through the extended growth period prior to the downturn, Calgary become one of the most unequal places economically where approximately one in ten Calgarians live in poverty. There are approximately 17,000 affordable housing units in Calgary serving those with annual income less than \$30,000/year spending over 50 per cent of their income on housing. Calgary has the goal of building an economy that works for everyone. An economy where all citizens have an opportunity to contribute to, and benefit from growing prosperity. Vibrant Communities Calgary, as the steward of Enough for All, the Poverty Reduction Strategy for Calgary, is an important agent of change convening and assisting organizations and individuals that work on poverty reduction by supporting their activities aligned with the</p>	

<p>strategy, foster continuous communication, enabling shared measurement and mobilizing resources. Suggested initiatives in the Economic Strategy include:</p> <ul style="list-style-type: none"> • Increase economic participation for the underrepresented and unemployed • Promote Enough for All – Calgary’s poverty reduction strategy • Continually provide diverse housing options that people can afford
<p>Activity highlights:</p> <ul style="list-style-type: none"> • In a landmark moment Bill 26: An Act to Combat Poverty and Fight for Albertans with Disabilities increases and indexes the rates for Albertans who receive Assured Income for the Severely Handicapped, Income Support and Alberta Seniors Benefit. • The Low-Income Transit Sliding Scale program has had a great effect on the lives and livelihoods of those receiving it. • The Community Hubs Initiative (partnership between the United Way, Rotary and The City of Calgary) completed evaluation plans in Sunalta, 90 per cent complete for Village Square, Bowness and Greater Forest Lawn with Genesis Centre beginning soon • In 2018, VCC undertook a refresh of E4A to clarify opportunities to leverage existing work and identify key areas of focus resulting in an Evaluation Framework and the refreshed strategy (E4A 2.0) released in 2019 • A Poverty Snapshot was released to support the understanding of poverty and its impact on Calgary’s citizens • The Calgary Local Immigrant Partnership, with The City of Calgary as the backbone, focused on creating a more welcoming and inclusive community for immigrants and newcomers by providing access to programs and services • Following direction from City Council, The City is developing a Gender Diversity, Equity, and Inclusion Strategy to advance gender equity and diversity on City Boards, Committees, Commissions and Council; City services; and The City’s workforce • In 2019 Calgary City Council approved a new Social Wellbeing Policy that advances principles of equity (access and inclusion); truth and reconciliation; prevention; and culture • In 2018, The City invested over \$17 million in programs that support the social inclusion of newcomers to Canada. • The City also started to develop an Indigenous Relations Office and continued to implement the Seniors Age-Friendly Strategy • The City’s commitment to the Access Design Standards and the accessibility of persons with disabilities provides economic benefit to The City, with respect to employment and infrastructure • The Advisory Committee on Accessibility focuses on broad policy issues and advises Council on access and disability issues that impact the need of people with disabilities
<p>Action plan:</p> <ul style="list-style-type: none"> • Implement poverty initiatives through identified levers of change • Inspire implementation champions and create shared value agreements with poverty reduction champions • Document evidence of progress in reducing poverty • Advocate for federal affordable housing funding to be invested in Calgary accelerating plans to build affordable housing units

Focus Area: Business Environment

Calgary continues to grow as a magnet for talent, a place where there is opportunity for all, and is leading as the best place in Canada to start and grow a business. Planning & Development undertook a zero-based review process in November 2016. That report was presented to City Council with recommendations centered on better understanding the needs of various customer groups and improving the customer experience overall. Businesses were a key and targeted customer group identified. During 2016, Planning & Development undertook an

intentional shift from being rules-based and process oriented to an outcome-based organization. This shift in approach was set-out in a new 2017 business plan.

In April 2018, Calgary Economic Development presented its update to the Economic Strategy for Calgary titled *Calgary in the New Economy*. The results from a survey with businesses were shared with The City which identified the top things government could do to support Calgary businesses. Having a more business friendly perspective/tone and keeping government spending under better control were at the forefront of the responses. This was supported by findings from The City of Calgary's Business Perspectives Research conducted in May 2018, in which businesses suggested The City's priority in working with businesses should be economic diversification, better management of spending and helping small businesses. Reducing red tape and allowing better/easier access to permits was also included in the list for some business leaders. These insights validate The City's need to partner with the business community, to continually improve City services and create the conditions for businesses to thrive. To continue to support businesses, The City needs to address issues which may cause Calgary to be less competitive for businesses considering locating to Calgary, or existing Calgary businesses and start-ups. The focus has been on three key areas; Service, Value and Innovation.

Service - Business owners require effective, efficient and streamlined processes that save time and money. To ensure The City is providing a customer service experience that supports and helps business navigate through each and all services, there must be an open and ongoing dialogue with the business community. Whether businesses are already here and looking to continue successfully operating or new business owners are looking to open, ensuring customers have a supportive and predictable experience to provide increased certainty for their investment is a key priority.

Value – Service alignment with policy goals, service cost and collaboration with the business community to equip them with information, resources and dedicated support programs to strengthen their resilience and contribute to business continuity.

Innovation - On the path to developing and commercializing new innovative technology, providing users, producers, and researchers access to physical and digital infrastructure and data to test concepts and products is crucial. The City of Calgary is one of the largest asset owners in the community and is an excellent resource to support the growth and development of local companies and attract companies to our growing innovation ecosystem. The City will and must continue to be innovative in ways in which we serve businesses, meeting current, and being prepared for, emerging needs.

The Living Lab initiative, a collaborative program between The City of Calgary and Calgary Economic Development, was created to formalize, simplify and market the process to open up civic infrastructure, assets (physical and digital), public spaces, transportation corridors and data to companies and academia, while providing business development and support to companies.

Deploy initiatives to facilitate business development and growth

<p>How much did we do? (Activities)</p> <ul style="list-style-type: none"> • 22,769 live chats from February to December 2018 • 765 total occupancies granted for new commercial and industrial buildings in 2018 • 2780 total occupancies granted for improvements to commercial and industrial buildings in 2018 	<p>How well did we do it? (Outcomes)</p> <ul style="list-style-type: none"> • 75% of development permit decisions reached for multi-family/commercial/industrial within 120 days of application • 80% of building permits for new commercial or multi-family projects received permission to begin construction within 21 days of application submission • 44% of current businesses in Calgary do not require a business license
<p>Story behind the baseline:</p> <p>Businesses surveyed want all orders of government to have a more business-friendly perspective. The efforts to be business friendly are ongoing as there are always opportunities for continued improvement. Calgary should continue to remove and reduce barriers to business growth, enhance communications with the business community and drive to maintain cost competitiveness. Focusing on value for service is essential, not only in attracting companies to Calgary, but in retaining and fostering the growth and capital expenditures of our existing businesses.</p> <p>Initiatives previously suggested in the strategy included:</p> <ul style="list-style-type: none"> • Launch an open for business campaign • Enhance communication with the business community • Initiate one-window approach for business and expand the role of Customer Coordinator, Small Business • Ensure business continuity through disasters and infrastructure projects • Maintain a supply of industrial land to meet objectives in attracting new business and supporting business growth • Develop and deploy a public KPI scorecard • Advocate for provincial and federal governments to improve tax position versus the United States <p>The following list of activities illustrate the progress on these prior suggestions along with new initiatives that have been launched in line with the key focus areas of Service, Value and Innovation.</p>	
<p>Activity highlights:</p> <p>Service</p> <ul style="list-style-type: none"> • In 2018, Calgary became the first city in Canada to provide a virtual one-window approach with a full suite of tools and permits available online with the support of our live chat, connecting our experienced staff with customers online. This initiative was the culmination of several years of work with both staff and customers to ensure a smooth transition to an online environment. This means business owners no longer need to take the time away from their businesses during working hours to come downtown and wait for assistance. • In 2017 a Customer Coordinator, Small Business role was created to guide new business owners along the customer journey in opening up a small business and help existing small businesses grow. The role was also created to address small business owner's 	

issues and when necessary, influence change within The City process while encouraging collaboration between The City of Calgary and external businesses.

Value

- Calgary is the first major city in Canada to accept developer surety bonds as an alternative to letters of credit while reducing the overall dollar amount held for securities by 10 per cent to reduce financial burden, free up private capital and make it easier for business to invest
- Permit Fees: The City has held development and construction permit fees at 2016 levels to 2020. These fees have not increased in four years because of feedback from citizens during the economic downturn
- Planning Application Review and Approvals Process Audit: The audit found work to create specific metrics around customer timeline commitments and related data collection and reporting that is now in place led to significant performance gains in recent years. An efficient review process is essential to achieve high quality, fair and timely decisions which result in development being realized. This supports the retention and attraction of private investment in Calgary. A recent audit outlined process improvements to be implemented in 2019 that will improve timelines and transparency
- Business Continuity: CEMA has partnered with Calgary Chamber of Commerce members to ensure business owners are active participants in how emergencies are managed in Calgary. Through this partnership, business owners now have access to tools and resources such as: risk reports, best practices, exercise opportunities and active participation in real emergency events
- CEMA has shared access to the Emergency Contact Data Base (ECDB), which allows businesses to stay informed with business-specific messaging during emergencies and disasters
- Launched the Invest in Calgary (calgary.ca/invest) web page to share key commitments such as approval timeline performance as well as current service improvements with the business and development community
- Business Improvement Areas: Continued focus on three areas: enhance BIA- City interface; increase integration of social and economic goals; and strategic alignment, resource leveraging and collaboration between BIAs and key community stakeholders. In 2018, The City launched a BIA toolkit to help navigate BIA and City processes, provincial legislation and board governance. In 2018, Community Development Action Grants to BIAs supported street banners, events, and other initiatives

Innovation

- Formed the Business Advisory Committee of Council reinforcing the strong commitment to business stakeholders, this group is chaired by a member of City Council and will provide direct advice on improving the investment climate in the city. This group can provide a unique perspective and seek innovative ways to improve service

Action plan: Service

- Enabling pop-up and interim uses: In 2019, Calgary will be the first city in Canada to propose pop-up and interim businesses in any commercial area, eliminating lengthy approval processes and license restrictions to attract tenants to vacant spaces
- Point Trotter Industrial Park: 18 lots to market ranging in size from 1.3 acres to 5.9 acres with one lot still available in Dufferin North at 49 acres. Purchasers have included businesses in construction, agribusiness, manufacturing, wholesale trade, transportation and logistics. Both areas offer businesses the opportunity to create niche solutions as lots can be consolidatedPhase 2 Point Trotter is in for subdivision approval with grading proceeding this summer. This phase will bring on 111 acres of net saleable industrial land

<p>Value</p> <ul style="list-style-type: none"> Digital Collaboration: Continue the move to a fully digital space where collaboration between businesses, customers and The City is easy, accessible and transparent <p>Business Friendly</p> <ul style="list-style-type: none"> Business Advisory Committee: In 2019 this group will connect with the greater business community, prioritize service improvement recommendations, and provide additional guidance on opportunities for implementation Business Friendly Network: Creating a cross-corporate City of Calgary team led out of Planning & Development devoted to the local economy and ensuring the business community is well supported. The network is connected through external engagement, internal service management and a front-line business friendly team Business & Local Economy Team: Serve a direct conduit for business owners and respond to input from the Business Advisory Committee and Network to identify and streamline or remove obstacles to ensure business-friendly strategy objectives are pursued and implemented throughout the corporation YYC – We do Business Better campaign: Will highlight how we are making it easier to invest with service improvements and initiatives while highlighting that we continue to be the best place in Canada and beyond to start and grow a business, and to “do business better”

Develop Calgary as a living lab

<p>How much did we do? (Activities)</p> <ul style="list-style-type: none"> Internal cross-corporate working group struck (City and Calgary Economic Development) Created a web page to serve as a “one-window in” for businesses and academia to access our Living Labs service (Calgary.ca/livinglabs) Hosted community roundtable workshop February 2019 	<p>How well did we do it? (Outcomes)</p> <ul style="list-style-type: none"> 20 companies accessing City assets (Appendix E)
<p>Story behind the baseline:</p> <p>On the path to developing and commercializing new technology, access to physical and digital infrastructure to test concepts and products is crucial. The City of Calgary is an excellent resource to support the growth and development of local companies and attract companies to our growing innovation ecosystem. Through access to public spaces, transportation corridors, data and digital infrastructure The City of Calgary provides companies the opportunity to test products in a real-life environment. The Living Labs program is a collaborative program with The City of Calgary offering access to infrastructure and Calgary Economic Development providing business development support to companies. Living Labs is a great example of collaborating cross-corporately to provide direct support to companies that strengthen our local economy.</p> <p>Initiatives suggested in the Economic Strategy include:</p> <ul style="list-style-type: none"> Share and license City of Calgary data on a large scale Open City infrastructure to create wireless (5G ready) zones with industry partners Extend dark fibre footprint to business/industrial parks and transit-oriented development sites Explore new ways for adoption of technology and innovation to provide solutions to municipal challenges 	
<p>Activity highlights:</p> <ul style="list-style-type: none"> Created an asset inventory for testing including the LoRaWAN network, fiber optic network, Point Trotter industrial land and various buildings including the Calgary Film Centre 	

<ul style="list-style-type: none"> ○ Industrial land - autonomous systems flight area in City limits (Point Trotter) ○ Service road and fibre – first autonomous shuttle pilot (ELA) collaboration with industry and academia in Western Canada ○ Calgary Film Centre – augmented reality company demos for clients ○ Warehouse/parkades – indoor GPS research and testing ○ Devonian Gardens – Internet of Things agriculture sensors for humidity, soil contents, lighting ○ Dark Fibre – research for world-class quantum computing and fibre-as-a-sensor ○ LoRaWAN (long range, wireless area network) – GPS asset tracking sensors ○ Water flow valves – underwater sensor technology testing • Engaged other infrastructure owners to participate (UCalgary and SAIT) • In the fall of 2018, facilitated the operation of an autonomous vehicle between the Calgary Zoo and TELUS Spark
<p>Action plan:</p> <ul style="list-style-type: none"> • Refinement of the Living Lab opportunity: Working with community representatives to explore future opportunities for Living Labs, including dedicated Living Lab zones and partnerships. • Marketing and outreach for Living Labs: Making more connections with our innovation ecosystem to support and understand needs. • Engagement for 5G Pilot: The City of Calgary is leading a 5G network proof of concept/pilot project in collaboration with many key stakeholders.

Appendix A Project Charter

“Calgary in the New Economy”

Leadership and Implementation Team Charter (DRAFT)

For over twenty years, Calgary has led economic growth in Canada. Calgary is a forward looking, ambitious community. Calgary in the New Economy charts a path for Calgary to continue leading Canada in economic growth for the next twenty years or more.

To do so we must act, quickly, to address talent challenges, spur innovation, establish Calgary as the best place to live and do business in Canada. We can win with a focus on talent, innovation, place and business environment.

While not our only opportunities, our best bets are in all things energy, transportation and logistics, agribusiness, life sciences, creative industries, financial services and tourism. We will realize the opportunities in applying technology across all industries, with Calgary claiming its place in the global digital era.

We, as leaders of business, community and academia are signatories to this Charter.

The Vision for Economic Development established by the Economic Strategy for Calgary:

Calgary is the city of choice in Canada for the world’s best entrepreneurs. We embrace innovation and create solutions that meet the world’s needs in food, health, energy and transportation.

Our Commitments:

As leaders, we pledge to:

- Provide visible leadership and accountability both within our individual companies and our community.

- Allocate resources (particularly people's time) and initiate, participate in or lead projects to achieve our vision.
- Listen, respond to and work with stakeholders and governments towards our vision.
- Assess and drive progress, share strategies/ideas, remove barriers and communicate the performance of "Calgary in the New Economy".
- Comply with all applicable laws and develop and abide by information-sharing guidelines that comply with competition laws.
- Meet regularly as the Economic Strategy Implementation and Leadership team and annually review progress against commitments in this Charter.

Our Shared Beliefs:

We believe that:

- Calgarians, Albertans and Canadians needs more "Calgary" – an entrepreneurial city with a strong sense of belonging and community spirit.
- Success is achieving economic growth, a stronger community, and building long-term prosperity.

Appendix B Economic Strategy Implementation Team Members

Implementation and Leadership Team Members

Chairs: Steve Allan and Adam Waterous

- Area of Focus Talent Chairs: Greg Bass (Calgary Academy), Ed McCauley (UCalgary), David Ross (SAIT)
- Area of Focus Innovation Chairs: Terry Rock (CTI), Judy Fairburn
- Area of Focus Place Chair: Michael Brown (CMLC)
- Area of Focus Business Environment Chair: Stuart Dalgleish (City of Calgary)
- Private sector representatives: Ross Middleton (BCG), Brad Zumwalt (Zinc Ventures), Wayne Chiu (Trico), Matthew Heffernan (Zedi), Bryan DeLottinville (Benevity), Lorraine Mitchelmore, Brent Cooper McLeod Law, Bob Espey (Parkland Fuel), Bob Sartor (YYC), Curtis Stange (ATB), Michael Crothers (Shell Canada)
- City of Calgary: Jeff Davison, Devery Corbin, Amie Blanchette, Lori Kerr
- Other orders of Government: Dylan Jones (WD), Meaghan Pelton (GoA)
- Education institutes: Laura Jo Gunter (BVC), Lesley Brown (MRU), Maryann Everett (CBE)
- Civic Partners and not for profit: Cindy Ady (Tourism Calgary), Franco Savoia (VCC), Clark Grue (CTCC), Patti Pon (CADA), Jeff Loomis (Momentum)
- Calgary Economic Development: Mary Moran, Court Ellingson

Appendix C Reporting on Resiliency Funding and Building on our Energy

Funding was also provided to support a talent hub and marketing campaigns. In 2016 February, funding for Startup Calgary was added to the Resilience Fund. Those funds have been reported back to Priorities and Finance Committee through Economic Strategy progress reports. This progress report includes the outcomes from the third and final year of that program.

Global Energy

Opportunity Calgary funding was used for energy advocacy across Canada. We launched the video “‘Canada, we need to talk” at the 2018 Energy Disruptors conference and the message has resonated with over 300,000 views. Calgary Economic Development partnered in hosting the conference, headlined by Richard Branson, and our CEO Mary Moran spoke on the opportunities created by the digitization of energy. The event leads into a larger energy advocacy campaign planned in 2019

CED continued to support the renewable energy sector with leadership from our advisory committee. As follow up to the market research CED supported in 2017, the Business Renewables Centre Canada launched in December, positioning Calgary as a hub for renewable energy procurement between Alberta project developers and consumers from across North America.

ENERGY AND GREEN ECONOMY IMPACTS FOR 2018: 11 INVESTMENTS ENGAGED/ATTRACTED/RETAINED/EXPANDED RESULTING IN ESTIMATED 190 DIRECT JOBS CREATED OR RETAINED.

Entrepreneurial Energy

Throughout 2018, Calgary Economic Development continued to develop and expand our position as Western Canada’s logistics hub attracting investment of over 700,000 square feet of industrial real estate space in warehouse and distribution. Notable attraction and expansion files in 2018 include such companies such as Radiant Wheels, Indigo, LIME and Lowe’s. The team also continued efforts to diversify and create jobs through emerging technologies such as Autonomous Systems, Aerospace and Advanced Manufacturing. The Opportunity Calgary Investment Fund funding to Attabotics is a marquee example of this work.

TRANSPORTATION AND LOGISTICS IMPACTS FOR 2018: 7 INVESTMENTS ENGAGED/ATTRACTED/RETAINED/EXPANDED RESULTING IN ESTIMATED 400 DIRECT JOBS CREATED OR RETAINED.

In 2018, the Calgary Film Commission marketed our region globally resulting in \$181 million in overall production. In collaboration with key industry stakeholders, including the Calgary Film Centre, the Commission implemented an advocacy strategy that saw incentives for Film/TV part of the platforms for all major parties in the 2019 Alberta election and is expected to lead to more competitive incentives. Throughout the year, the film, television and digital media sector produced more than 600 projects in the Calgary region.

CREATIVE INDUSTRIES IMPACTS FOR 2018: 30 MAJOR PROJECTS ATTRACTED OR RETAINED, \$181 MILLION IN ECONOMIC ACTIVITY RESULTING IN ESTIMATED 2,150 DIRECT JOBS CREATED OR RETAINED.

In 2018, Calgary emerged as a global hub for plant science with the expansion of Bayer Canada's CropScience Division as a result of Bayer's US\$63-billion purchase of Monsanto in June. It was noted that Calgary was the best opportunity for business success; farmer proximity, attracting and retaining a more robust talent pool, easier access to collaborative initiatives in an ecosystem and easier direct flight access to most retailer HQ and tech HQ's and Ag industry events are making it easier and easier to sell Calgary's unique Agribusiness value proposition.

Additionally, we attracted a number of companies in the value added processing and beverage manufacturing space, as well as began the process of defining how we can position ourselves as a hub for alternative protein in light of the Protein Industries Canada supercluster announcement.

AGRIBUSINESS IMPACTS FOR 2018: 14 INVESTMENTS ENGAGED/ATTRACTED/RETAINED/EXPANDED RESULTING IN ESTIMATED 220 DIRECT JOBS CREATED OR RETAINED.

The Real Estate team at Calgary Economic Development supports Business Development in all sectors and also provides direct assistance to industry clients seeking to invest directly in Calgary's real estate market. The team assisted in landing more than \$100 million of investment in Calgary's office, suburban, retail and industrial markets. Local firms like Aspen Properties, Artis REIT, and Strategic are joined by national firms such as Slate Asset Management in making significant investments to transform tired and or vacant buildings into sought-after real estate in response to the demands of the new economy and it's changing workforce.

REAL ESTATE IMPACTS FOR 2018: 13 INVESTMENTS ENGAGED/ATTRACTED/RETAINED/EXPANDED RESULTING IN ESTIMATED 130 DIRECT JOBS CREATED OR RETAINED

Innovative Energy

In 2017, The City of Calgary released \$325,000 in Opportunity Calgary funds to Calgary Economic Development to support Startup Calgary's efforts to build and sustain early stage startups. In addition to acquiring Startup Calgary, we collaborated with Calgary technologies Inc. and A100 to form the Calgary Innovation Coalition to coordinate activities in serving entrepreneurs. CED and our partners have refined our understanding of cluster and emerging technologies in Calgary and pivoted to focus on attracting and engaging technology companies.

EMERGING SECTORS IMPACTS FOR 2018: 16 INVESTMENTS ENGAGED/ATTRACTED/RETAINED/EXPANDED RESULTING IN ESTIMATED 375 DIRECT JOBS CREATED OR RETAINED

STARTUP CALGARY IMPACTS FOR 2018: 42 CLIENTS REFERRED TO ALBERTA INNOVATES VOUCHER PROGRAM WITH 22 CLIENTS ALREADY ACCESSING THOSE VOUCHERS.SUPPORTED 16 STARTUPS IN RECEIVING VC FUNDING GENERATING 20 JOBS.

Appendix D Area of Focus Team Members

Talent Leadership Team Members

Chairs: Dr. McCauley President University of Calgary, Dr. Ross President SAIT, Dr. Bass CEO Calgary Academy

- Lesley Brown Mount Royal University
- Laura Jo Gunter Bow Valley College
- Sheila Leblanc University of Calgary
- Elliott Hewitt Western Economic Diversification
- Rod Skura Alberta Advanced Education
- Maryann Everett Alberta Labour
- Brent Allison Longview Systems
- Marcos Lopez Solium
- Greg Chudiak Pandell
- Julie Walyuchow Critical Mass
- Derrick Hunter Hunter Family Foundation
- Cheryl Knight Knight & Assoc.
- Bryan Delottinville Benevity
- John Hui Smart Technologies
- Jeff Loomis Momentum
- Andrea Holowka Calgary Catholic School District
- Sager Grewal, UCalgary Students Union
- Erin Chrusch Mayor's Office
- Calgary Economic Development: Jeanette Sutherland, Deana Haley, Court Ellingson

Innovation Leadership Team Members

Chairs: Judy Fairburn and Terry Rock CEO Platform

- Monique Nessel City of Calgary
- Sandi Gilbert Seed Ups
- Rick Tofani SAIT
- Chris Paterson Xarvio (BASF)
- Francois Blouin ATCO

- Mike Teshima Suncor Energy
- Trent Johnsen CDL Rockies
- Brad Zumwalt Zinc Ventures
- David Edmonds Accelerate Funds
- Ed Straw ATB
- Carey Houston 321 Sales Academy
- Jeff LaFrenz VizworX
- Erin Chrusch Mayor's Office
- Rollie Dykstra Alberta Innovates
- Jim Gibson Rainforest Alberta
- Calgary Economic Development: Alecia Peters, Kari Gordon, Court Ellingson
- Platform Calgary: James Thangaraj, Steve McIlvenna, Wally Thorson

Place Leadership Team Members

Chair: Michael Brown

- Brian Hahn BILD Calgary Region
- Ken Toews Strategic Group
- John Fisher CBRE/NAIOP
- Trent Edwards Brookfield Residential
- Marco DeIaco Downtown Business Assoc.
- Franco Savoia Vibrant Communities Calgary
- Martina Jileckova Horizon Housing Society (CHAC)
- Cassandra McAuley Tourism Calgary
- Patti Pon Calgary Arts Development
- Clark Grue Calgary TELUS Convention Centre
- Druh Farrell Councillor Ward 7
- Evan Woolley Councillor Ward 8
- Thom Mahler City Planning
- Sarah Quayle City Green Line
- Augusto Romero City Culture
- James McLaughlin City Recreation
- Erin Chrusch Mayor's Office
- Calgary Economic Development: Leslie Shier, Deana Haley, Court Ellingson

Business Environment Team Members

Chair: Stuart Dalglish, GM Planning

- Amie Blanchette Calgary Approvals Coordination
- Monique Nasset Information Technology
- Stephanie Knight City Manager's Office
- Karla Spilsted Real Estate & Development Services
- Jason Cameron Resilience
- Mike Luchia CEMA
- Katie Paton Mayor's Office
- Sonya Sharp Calgary Approvals
- Lisa Sierra Corporate Analytics & Innovation
- Danijela Stankovic Corporate Analytics and Innovation
- Sapna Gupta Customer Service Communications
- Blair Riddle Customer Service Communications

Appendix E Living Lab Projects

- ACAMP – Calgary Zoo
- Aerium Analytics – Shepard Landfill
- Calgary Internet Exchange – City wide
- Canadian Fibre Optic/UCalgary – TELUS Spark, Calgary Zoo and LRT
- Civic Tech YYC and University of Calgary – Downtown
- Global Troxler – Point Trotter
- In-Flight Data – Point Trotter
- Lux Modus – 7th Avenue Transit Corridor
- Measurement Sciences Inc. – Point Trotter
- Pacific Western Transportation – TELUS Spark and Calgary Zoo
- Random Acronym - Shouldice aquatic centre
- SAIT - Point Trotter
- SAIT Research with Lockheed Martin - Shepard Landfill
- SAIT Research with NASA - Shepard Landfill
- Sensor Up - Devonian Gardens
- Takemetuit - Furniture Warehouse

- University of Calgary - City Wide Acoustic Sensor Testing
- University of Calgary – Computer Science – TELUS Spark and Calgary Zoo (ELA Pilot)
- University of Calgary – Quantum Clouds Lab - Fibre at University of Calgary
- VizWorX - Calgary Film Centre