



BUILDING FOR THE FUTURE

**CALGARY ECONOMIC DEVELOPMENT'S
PROVINCIAL PRIORITIES**

calgary economic
development
be part of the energy™

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ABOUT CALGARY ECONOMIC DEVELOPMENT

Calgary Economic Development is a conduit, connector and catalyst enabling diversification and economic growth in Calgary.

HOW DO WE DO THIS?

Calgary Economic Development positions Calgary for long term economic success through expansion, retention and acquisition of companies, capital and talent.

We are opportunity-makers. We nurture prospective businesses and talent considering Calgary as a destination of choice to set-up or expand operations.

We are connectors. We link businesses and entrepreneurs with investors, advisors, industry leaders, partners and employees. We connect Calgarians to mentors and employers so that they can find their place in the workforce and like-minded people in their community. We introduce companies to new locations, markets and customers.

We are storytellers. We promote Calgary as the destination of choice for people, investment and business.

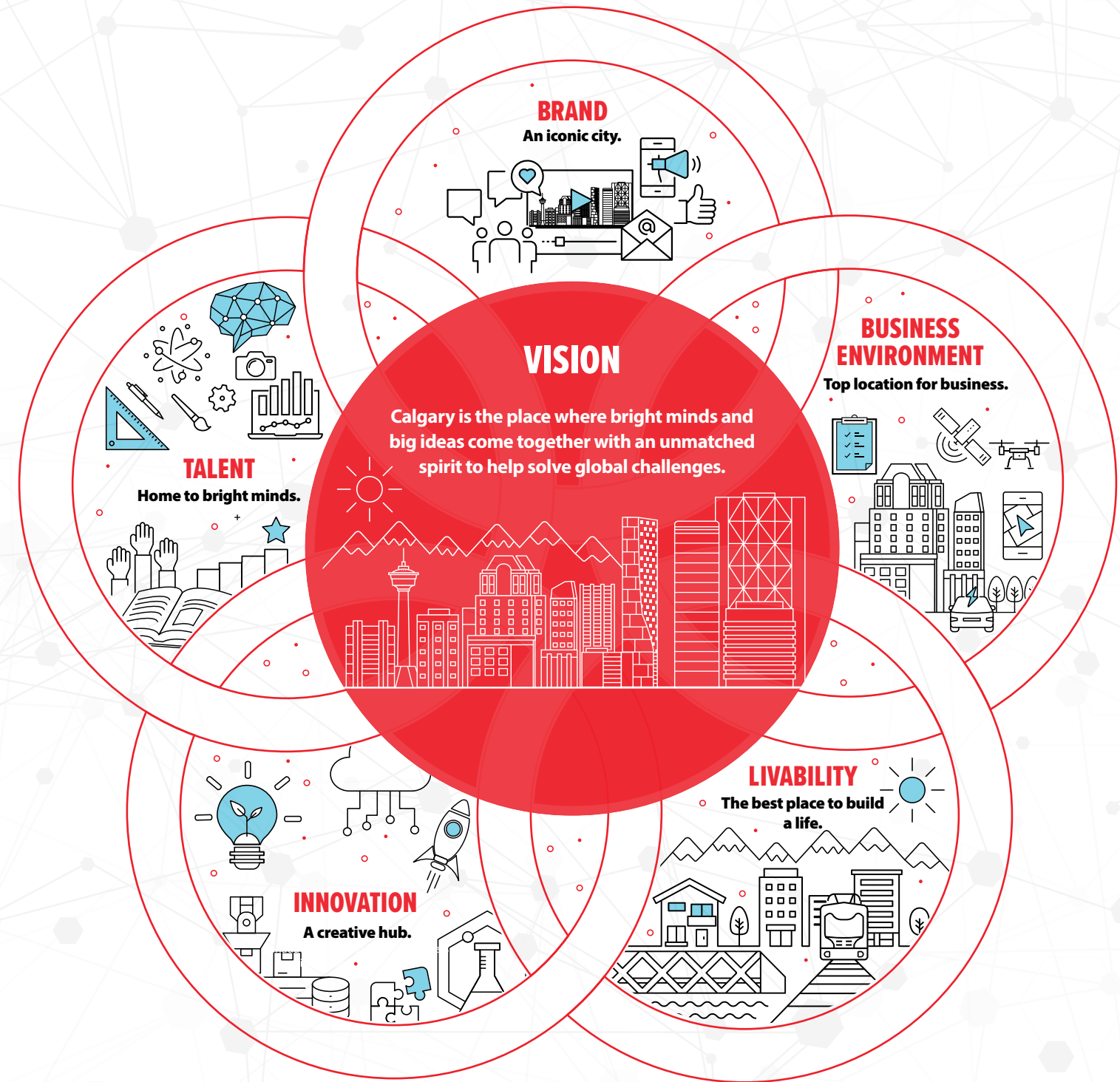


CALGARY IN THE NEW ECONOMY

Calgary Economic Development's work is driven by the community-created economic strategy, *Calgary in the New Economy*. We are stewards of the strategy, which helps position Calgary for long-term economic success and shared prosperity for all. The strategic framework is comprised of five connected drivers and goals that support a future-proof, sustainable economy for Calgary.

Designed to support economic diversification and job creation for Albertans, the drivers work together to create enduring prosperity and an economy that is inclusive and accessible for everyone.

Calgary Economic Development is focused on the economic prosperity and quality of life of Albertans. We drive momentum for the province through economic diversification, workforce development and strategic foresight to anticipate opportunities for growth.



EXECUTIVE SUMMARY

This document highlights how Calgary Economic Development helps to diversify Calgary's economy. We identify several opportunities for collaboration with the Government of Alberta that would help position the Calgary region as a competitive jurisdiction that creates long-term prosperity and opportunities for all.

BUILDING THE ECONOMY THROUGH DIVERSIFICATION

Creative Industries

- Develop the screen production talent pool by investing in training programs outlined in an Action Plan for Alberta's Screen Production Workforce.
- Competitively position Alberta's creative economy – as a destination for digital media, entertainment and screen production growth – by reintroducing the Digital Media Tax Credit and enhancing the incentive on the Post-Production Grant.

Aerospace and Advanced Manufacturing

- Address the needs of aerospace companies looking to do business in Calgary by collaborating on an Alberta Aerospace Talent Strategy to build a skilled talent pool for further growth and investment.
- Build on the momentum of establishing the Calgary region as a destination for advanced manufacturing with financial support for research and development (R&D) and technology adoption incentives.

Energy and Environment

- Invest in the Calgary-region Hydrogen Hub to create hydrogen corridors leading to substantial markets for fuel hydrogen in the Calgary and Alberta region.
- Collaborate on a provincial vision and incentive strategy to attract business investment within the Lithium Value Chain – a ~\$9 trillion market opportunity by 2030.
- Prepare Alberta's energy workforce with skilled talent in carbon capture utilization and storage (CCUS) to support the additional \$61 billion in 2050 GDP on a net-zero pathway in Alberta.

Life Sciences

- Enable innovation for Alberta-based health and life sciences firms and startups by championing access to health data from Alberta Health Services (AHS) and Alberta Health.
- Develop Alberta as a destination for life sciences innovation and pharmaceutical manufacturing by supporting sector development through financial incentives and investments in infrastructure.

Enterprise Technologies

- Attract information technology and technology companies to Alberta by creating payroll and more inclusive training incentives for tech talent.
- Invest in post-secondary institutions to develop Alberta's tech talent pool.

Agribusiness

- Continue to invest in agribusiness in Alberta to help create jobs and spur global demand for Alberta-made products. The recent announcement of the Alberta Agri-processing Investment Tax Credit will support business investment and position Alberta as a competitive agri-processing jurisdiction.

BUILDING THE FUTURE THROUGH INNOVATION

- Accelerate record-setting venture capital investment in Calgary and scale Albertan businesses to global markets by investing in the development of a centralized Innovation District in Calgary.

BUILDING OUR WORKFORCE AND CREATING JOBS

- Create opportunities for Albertans to succeed in the workplace by investing in upskilling programs and providing financial support for students. Understand and measure critical gaps and opportunities for Calgary's workforce by investing in Calgary's Talent Supply and Forecasted Demand Study.
- Grow Alberta's workforce with the expansion of the Alberta Jobs Now Program to include youth, equity-deserving communities and those currently residing outside the province (not a Canadian citizen or permanent resident but hired for work in Alberta).

BUILDING FORESIGHT THROUGH ECONOMIC INTELLIGENCE

- Facilitate retention and expansion of Calgary businesses through investment in innovation management platforms (online data-driven community engagement tools).
- Anticipate the Calgary region's future economic conditions by investing in economic intelligence systems.



BUILDING THE ECONOMY THROUGH DIVERSIFICATION

Diversifying the economy in the Calgary region is a key priority for Calgary Economic Development.

Key sectors of focus for Calgary include aerospace, advanced manufacturing, agribusiness, creative industries, energy and environment, financial services, digital media and entertainment, life sciences, technology and transportation and logistics.

Together, Calgary Economic Development and the Government of Alberta can work together to grow skilled talent, encourage Foreign Direct Investment (FDI), support local company retention and ultimately diversify and future proof Calgary, and Alberta's economy.

CREATIVE ECONOMY IN CALGARY

The creative economy has the potential to support the delivery of a sustainable and diversified economy in Alberta.

Calgary Economic Development and the Calgary Film Commission work with government, industry partners and studios to develop the creative economy in the Calgary region. Through labour market surveys and collaboration with government, industry and post-secondaries, we elevate the talent pool to respond to growing demand for the sector.

By pitching the Calgary region in key markets, we attract screen industries – film, television, and digital media productions – and deliver turnkey production services including scouting and film permitting.

When the Government of Alberta removed the \$10 million cap per project for the Film and Television Tax Credit in 2021, the incentive positioned the province as a competitive film jurisdiction internationally. Immediately, productions of unprecedented scale saw the advantages of doing business in the province, with HBO's *The Last of Us* the most recent star-studded example.

Subsequent years yielded record-breaking film and television production spend, with over \$461 million invested in the Calgary region in 2022. In the same year over 5,400 jobs were created, retained and expanded in film, TV, digital media and entertainment and 146,300 sq. ft. of commercial industrial space was occupied.

Moviemakers, screen talent and production executives increasingly see Calgary as a place of creative opportunity. In 2023, Calgary rose two spots, placing eighth among MovieMaker's list of the Top 25 Cities to Live and Work as a Moviemaker in North America.

Increased production space and activity result in the need for a larger workforce of people with the required skills to support the sector. The film and TV sector employs workers across a wide range of jobs and skillsets, and a growing local screen industry boosts resident retention across those career paths.

Since film and television productions employ Albertans in roles from the fine arts to the trades, the creative economy presents a strong opportunity for hiring unemployed or underemployed workers from a variety of other sectors, without significant time or financial cost for reskilling.

CREATIVE INDUSTRY INCENTIVES

- The Alberta Made Production Grant – Ministry of Culture.
- The Government of Alberta – through the Ministry of Jobs, Economy and Northern Development – introduced the Film and Television Tax Credit (FTTC).
- The Government of Alberta added investment to the FTTC and eased the per-capita project cap, historically a barrier to large-budget features and television programs shooting in the province.





OPPORTUNITY:

Develop the screen production talent pool by investing in training programs outlined in an Action Plan for Alberta's Screen Production Workforce.

OPPORTUNITIES IN CREATIVE INDUSTRIES

Skilled talent is required to support the estimated 10 per cent annual growth in screen production activity year-over-year for the next three years. Investments in training programs included in the *Action Plan for Alberta's Screen Production Workforce* – developed in partnership with the Government of Alberta – will ensure recruitment, retention and growth of a diverse and talented workforce.

Efforts to this point have been strongly supported by industry including studios and vendors, and post-secondary institutions including Bow Valley College, Red Deer College and University of Lethbridge.

PROJECTED ECONOMIC IMPACT IF TRAINING INCENTIVE ADDED:

CREATE

 **1,024** new jobs

- 982** Film and Television
- 30** Alberta Producer Accelerator
- 12** Animation

ADDITIONAL

 **\$294**

million in additional production spending



ADDITIONAL

\$41 million in tax revenue for the province

OPPORTUNITY:

Competitively position Alberta's creative economy – as a destination for digital media, entertainment and screen production growth – by reintroducing the Digital Media Tax Credit and enhancing the incentive on the Post-Production Grant.

Expanding the incentive of the Post-Production Grant will help competitively position Alberta's creative economy – particularly animation and VFX – in the national and international marketplace.

Calgary's creative industries sector will spend \$566 million on digital transformation between 2022 and 2024, making way for animation and visual effects as key engines of growth. Meanwhile, the global spend for the animation and VFX market is expected to reach US \$289.4 billion by 2026. Growth of Calgary's animation industry through feature-length films, shorts and episodic TV shows also diversifies the overall film and TV sector in Alberta.

Investments in the post-production sector make Alberta a "one-stop-shop" for the full life cycle of a screen production project. Post-production is largely encompassed by the visual effects (VFX) industry in the third and final stage in the film, TV and video creation process – the process of editing and assembling the final product for delivery in domestic and international markets.

The credit previously introduced as the Interactive Digital Media Tax Credit expedited development of the digital media and video game industry and created jobs for Albertans. Re-introducing this credit more generally as a Digital Media Tax Credit would encourage growth in animation, esports, game development and immersive technology – all key sectors in entertainment that individually see global GDP returns in the 100's of millions to billions.

British Columbia, Ontario and Quebec currently have tax credit programs, incentivizing and capitalizing on expansion in this sector. The Calgary Film Commission continues to hear that investors seek certainty through a predictable and appropriately funded grant system.

AEROSPACE AND ADVANCED MANUFACTURING IN CALGARY

Calgary is emerging as a centre of innovation in the global aerospace industry. Home to the third busiest airport in Canada and one of Canada's major airlines, Calgary is an established aviation hub. Commitments from WestJet, De Havilland, Lynx Air as well as the Government of Alberta \$73 million investment towards aviation and tourism industries cement Calgary's position as an aviation center.

The Calgary region has experts in geospatial data, navigation and communication equipment manufacturing, custom software development and hardware, and manufacturing, maintenance, repair and overhaul (MMRO).

Calgary is also Western Canada's distribution hub, with air, rail and ground access reaching 16 million consumers within 24 hours. The YYC Calgary International Airport has direct flights to 87 international destinations and is one of the fastest growing cargo airports in Canada, with over 75 per cent of all Alberta air cargo shipments transported through the YYC gateway.

OPPORTUNITIES IN AEROSPACE & ADVANCED MANUFACTURING

Over 500 companies in Alberta's aerospace and defense sector contribute \$3.25 billion directly to provincial GDP. While we are on the right path to support the development of aerospace, we need a strategy to identify the skills needed and an action plan to fill the skills gap to continue to grow and diversify Alberta's economy.

The aerospace industry is projected to experience labour shortages, and while investments into post-secondary aviation programs help – at Mount Royal University and the Southern Alberta Institute of Technology – additional investment is needed.

Expanding the Strategic Aviation Advisory Council and creating a provincial association for the sector would be a first step to address the labour challenge. The Aerospace Industries Association of Canada (AIAC) is a member-driven, not-for-profit, national organization that promotes

OPPORTUNITY:

Address the needs of aerospace companies looking to do business in Calgary by collaborating on an Alberta Aerospace Talent Strategy to build a skilled talent pool for further growth and investment.

AEROSPACE SOARS TO NEW HEIGHTS IN ALBERTA:

The Government of Alberta's

 **\$73 M**
INVESTMENT

towards the aviation and tourism industries in Alberta will improve affordability of travel to and from Calgary, enhance pilot training capacity and sustainability through creation of a sustainable aviation fuel (SAF), and explore infrastructure investment opportunities.

and facilitates Canadian competitiveness in the global aerospace industry. The creation of an Alberta chapter – or equivalent for the province of Alberta – is essential to drive awareness, investment and sector collaboration. An Alberta-based aviation council could:

- Help drive aviation ecosystem mapping.
- Create a portal with an inventory of Alberta-based aviation companies, with their capabilities and capacities.
- Support Alberta's aviation workforce development, identify and fill skill gaps.
- Lead aviation industry advocacy for Alberta nationally and internationally.
- Drive investment attraction.
- Consolidate collaboration in Alberta's aviation industry.

Looking forward, skilled, trained Albertans are the common denominator driving success behind investments in aerospace and aviation.

Calgary is perfectly situated to develop the advanced manufacturing sector as the Western Canadian inland port. Since advanced manufacturing and materials science are the backbone of many industries – including but not limited to aerospace, automotive, energy and construction – this gap should be identified by the Government of Alberta as a critical obstacle for diversifying the province's economy.

Alberta is positioned to be a leader in two specific advanced manufacturing areas:

- Robots and automation, which are essential for digital transformation of Alberta's economy and addressing a likely labour shortage.
- Composite manufacturing, which can accelerate growth of the aerospace, automotive and renewable energy industries in Alberta.

Recent success from startups like Attabotics' \$71.7 million Series C funding speak to the growing momentum in this industry in the Calgary region.

The Government of Alberta could assist development of this sector through:

- **Grants for research and training organizations** across the province to enhance and upgrade manufacturing facilities so they can competitively attract and train talent across Canada and internationally.
- **Available subsidies or incentives to adopt advanced manufacturing technologies** would help expand Alberta's economic corridors and position Alberta as an internationally competitive manufacturing jurisdiction. Small and medium size Albertan manufacturing businesses require support to advance robotics, automation and digital manufacturing solutions to remain economically viable and competitive.

Aerospace and advanced manufacturing are targeted as key sectors in the Opportunity Calgary Investment Fund's (OCIF) 2.0 strategy. While currently assessing the gaps and needs of this sector in partnership with Calgary Economic Development, OCIF is scoping the need for support in early-stage investments in high potential companies, including talent attraction, development and training. OCIF is also scoping the role for collaboration among the post-secondary institutions, industry and government required to see these sectors grow in Alberta.

ENERGY AND ENVIRONMENT IN CALGARY

Long-established as a global centre of excellence in energy, Calgary is home to leaders in the energy transition. Alongside the Energy Transition Centre – a hub for accelerators, academia and industry – accelerators and incubators including Plug and Play, SVG | Thrive, CDL-Rockies and Avatar Innovations spur and fund Calgary-based startups.

Within an ecosystem of support, Calgary-based energy firms and cleantech startups are bringing innovative net-zero ideas to market, as part of the opportunity identified in the *Alberta Energy Transition Study*.

OPPORTUNITIES IN ENERGY AND ENVIRONMENT

The recently released report, *Towards A Fuel Hydrogen Economy in the Calgary Region: A Feasibility Study*, outlines the \$4.6 billion per year potential market opportunity for domestic hydrogen use on a pathway to net zero.

To realize this billion-dollar opportunity, a Calgary Region Hydrogen Hub would provide a vital link with the Edmonton Region Hydrogen Hub and other population centers in Alberta to create hydrogen corridors leading to substantial markets for fuel hydrogen in the Calgary and Alberta region.

Calgary ranked among the

 **Top 30**

of 286 Cleantech Ecosystems in the world by Startup Genome in 2021

OPPORTUNITY:
Invest in the Calgary-region Hydrogen Hub to create hydrogen corridors leading to substantial markets for fuel hydrogen in the Calgary and Alberta region.



 **\$4.6 B**

per year potential market opportunity for domestic hydrogen use on a pathway to net zero

A Calgary Region Hydrogen Hub coordinates industry, government, and the community to simultaneously build out demand and supply of hydrogen. With an approximate operating budget of \$600,000 per year, the Hub will accelerate pilots and projects to increase investment dollars and expand local companies. Based on the needs of participants, companies will be supported for targeted trade missions to international markets.

Funding for the Calgary Region Hydrogen Hub covers the management of the governance structure, techno-economic analysis, industry engagement, communications, international mission support and investment promotion.

OPPORTUNITY:

Collaborate on a provincial vision and incentive strategy to attract business investment within the Lithium Value Chain – a ~\$9 trillion market opportunity by 2030.

Ontario has been successful at attracting ~\$11 billion in investment to the Lithium Value Chain since 2020. Alberta can leverage provincial cashflows to build this value chain of the future, and create new jobs, investment and technology in Western Canada. Ontario's provincial strategies, such as the 10-year vision, *Prosperity – The Future of Ontario's Automotive Sector*, and the *Critical Minerals Strategy* have attracted recent investment.

To become provincially competitive, Alberta needs to establish a provincial vision and introduce competitive incentives. As a start, clear treatment of energy storage in Alberta would be a lynchpin to attract large investment opportunities in the Li-ion cell manufacturing. The grid scale energy storage potential market opportunity is valued at ~\$7.7 billion, and battery storage is valued at ~\$4.8 billion by 2035, according to the Renewables and Storage Rush Scenario in the AESO Net-Zero Report.

OPPORTUNITY:

Prepare Alberta's energy workforce with skilled talent in CCUS to support the additional \$61 billion in 2050 GDP on a net-zero pathway in Alberta.

The Pathways Alliance identifies carbon capture utilization and storage (CCUS) as the main decarbonization pathway for our oil and gas industry by 2030. With a projected \$24 billion spend across 20 single-point carbon capture projects by the Alliance, expanding Alberta's workforce in CCUS is an emerging priority.

Access to skilled talent is key for businesses considering or expanding into Alberta. The recent *Alberta Energy Transition Study* models a future where the labor force for the CCUS sector is incredibly tight or experiences a shortfall. A prepared and willing workforce may constrain industrial activity if investment decisions are clustered in the second half of the decade.

Investment in developing or re-skilling Alberta's energy workforce in CCUS will attract firms investing in the energy transition, while continued policy uncertainty delays investment decisions of Alberta-based oil and gas companies.

LIFE SCIENCES IN CALGARY

Calgary is home to more than 120 life sciences companies ranging from emerging startups to established publicly traded firms. With this critical mass of research, technical talent and expertise, Calgary is leading the way to addressing global health issues.

Calgary's life sciences sector is projected to invest \$428 million by 2024 in digital transformation. This investment in digital transformation is compounded with over \$1 billion in revenues in Alberta's life sciences innovation sector in 2021, which employs approximately 12,400 Albertans (BioAlberta).

Research centres and institutions including Hotchkiss Brain Institute, Alberta Children's Hospital Research Institute, Calgary Cancer Centre, Arnie Charbonneau Cancer Institute, the International Microbiome Centre, Ward of the 21st Century (W21C), Calgary Centre for Clinical Research and IMPACT are driving the next innovations in health care.

Calgary is leading innovation in precision oncology, precision diagnostics, biomedical engineering, microbiome and neuroscience. Bright minds scale solutions to global health challenges in Calgary with 24 per cent of Canadian clinical trials conducted in Alberta, and the University of Calgary ranked the number one startup creator among Canadian universities.

OPPORTUNITIES IN LIFE SCIENCES

Currently, it is a challenge to access de-identified or anonymized patient data and patient samples in Alberta. The process is lengthy, costly and complicated to navigate, which thwarts innovation and our ability (for researchers and private sector) to develop innovative products and solutions for patients in need.

While it is imperative for Alberta Health Services (AHS) and Alberta Health to continue to safeguard patient data and samples, we could work collaboratively towards a solution for data-sharing that does not monetize patient data nor interfere with patient privacy.

 **MORE THAN 120**

life science companies call Calgary home

 **U OF C RANKED #1**

startup creator among Canadian universities

OPPORTUNITY:

Enable innovation for Alberta-based health and life sciences firms and startups by championing access to health data from AHS and Alberta Health.





Health innovation is driven by the needs of patients, but access to clinical data and patient samples is necessary to develop solutions to patient care, improve health care delivery and lessen the burden (cost and efficiency) to the health care system. Over 4.4 million patients access care through AHS, making this one of the most valuable resources that can be tapped and developed to benefit Albertans. If leveraged ethically and effectively, access to patient data would support health care innovation, attract investment and recruit highly skilled professionals and researchers.

OPPORTUNITY:
Develop Alberta as a destination for life sciences innovation and pharmaceutical manufacturing by supporting sector development through financial incentives and investments in infrastructure.

With Calgary home to world-class health care, research institutes and life-sciences innovation hubs, pharmaceutical manufacturing poses a significant opportunity for Alberta.

Already, the Calgary region is experiencing heavy investment in biomanufacturing – via infrastructure and equipment – from companies such as Solvet, Providence Therapeutics and Northern RNA. Solvet, an animal-health pharma company, is actively growing its manufacturing capacity in Calgary through a \$20 million investment, projected to create 100 jobs and build a new 40,000 sq. ft. facility.

Further investment will position the Calgary-region and Alberta as a leader in biomanufacturing and attract international companies. This could be realized by the following:

- **Build biomanufacturing infrastructure** that can support product development from prototyping to pilot-scale manufacturing that has the capacity and capability to support the increasing range of bioproducts.
- **Build the workforce** to support the research-to-commercialization continuum, which includes R&D, biomanufacturing and bioprocessing, clinical or field trials, and business development. Alberta’s health innovation workforce could expand with support from the Government of Alberta in:
 - Investing in training programs, credential programs and internship/practicum/work placement programs.
 - Providing wage subsidies or incentives to employers who are training, recruiting, retaining and upskilling the bio-workforce in Alberta.

As Albertan health and life science firms invest, scale and create jobs, we demonstrate to international firms that biomanufacturing companies can thrive here.

ENTREPRISE TECHNOLOGY IN CALGARY

The technology sector is booming in Calgary. Home to five Narwhals (firms valued at \$1 billion CAD) in 2022, Calgary is an ideal business climate for tech companies to scale to global heights.

With tech and innovation hand-in-hand, the city has experienced record-breaking venture capital investment for the past 5 years, with Calgary seeing the fourth-highest investment nationally in 2022 with \$647 million invested through 64 deals.

Not only are multinational firms moving to Calgary, but they are creating talent hubs to further develop Calgary’s tech ecosystem with in-demand skills, including the RBC Calgary Innovation Hub and IBM Western Canada Client Innovation Centre.

Global tech giants Mphasis and Infosys have opened regional headquarters in Calgary and plan to hire thousands alongside Calgary-based billion-dollar valued unicorns like Neo Financial and Shareworks.

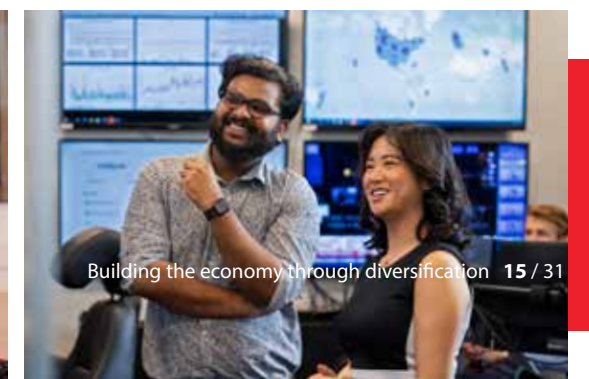
Tech talent is streaming to the city as Calgary businesses drive the \$20 billion forecasted spend on digital transformation in Alberta between 2021 and 2024. With 22 per cent growth in tech talent and total tech jobs over the last five years, Calgary placed 28th among the Top 50 North American markets in the CBRE 2022 Scoring Tech Talent report.

Despite Calgary’s highly skilled workforce, with 41.3 per cent holding a bachelor’s degree or higher, access to skilled talent remains a top priority for tech companies expanding in or moving to Calgary.

Creating a payroll rebate for technology companies would attract businesses expanding in or to Calgary. This incentive would offset the costs for employers hiring highly skilled Albertan tech talent, as well as recruiting top talent from other markets. Payroll incentives have proven successful for emerging tech hubs with a less robust tech talent pipeline, such as Halifax, where competitive incentives have attracted well-established businesses across targeted sectors.

Tech talent is often retrained and upskilled within the business itself to develop the skills needed for the role, as often, relevant third-party training does not exist or is not sufficient. Adjusting the Canada-Alberta Job Grant to cover internal training would make Calgary more appealing by offsetting the cost to employers to retrain or upskill Alberta’s existing talent pool. Expanding parameters for the grant would enable employers

OPPORTUNITY:
Attract IT and technology companies to Alberta by creating payroll and more inclusive training incentives for tech talent.





to invest time in their employees and ultimately grow Alberta's tech talent with skills for the new, digital economy.

OPPORTUNITY:
Invest in post-secondary institutions to develop Alberta's tech talent pool.

The greatest challenge for investors when scaling tech companies is the availability of trained tech talent. This is evidenced by the thousands of open tech jobs in Calgary, and insufficient talent to fill them.

This gap in the tech talent pool is a major deterrent as we continue to try and diversify the economy and attract tech companies. At this time, companies must invest in attracting talent from out-of-market, hire remotely in Toronto and Vancouver, upskill and reskill talent themselves or will "poach" and overpay for local resources, leaving a gap at another company. To address and close this gap, increasing investment in post-secondary institutions would help build the junior tech talent funnel locally.

We have lost business expansion opportunities or have not been able to support the full growth potential of businesses due to a lack of tech talent in junior, mid and senior levels of professional and scientific roles.

Desired roles, and therefore the opportunity for Alberta's talent pool, include:

- software developers
- software engineers
- React Native engineers
- automation engineers
- data engineers
- ML engineers
- front-end and back-end tech
- full-stack, java, python
- boomi systems integrators
- architectural developers
- solutions architects
- technical architects
- financial specialists
- sales and marketing talent specialized in applications and product
- product managers
- HR talent for tech recruiting
- designers
- SAP talent
- Service Now talent
- cybersecurity
- cloud systems
- UX/UI, AI/ML
- high tech or deep tech talent
- emerging tech roles

AGRIBUSINESS IN CALGARY

With access to a strong agricultural base, Calgary and Southern Alberta is a well-connected region with collaboration across geographic areas, industries, research and training institutions. The sector is poised for growth, with agtech named a key subsector driving the net-zero pathway within energy transition in Alberta in the *Alberta Energy Transition Study*.

Calgary-based agribusinesses are projected to invest \$246 million in digital transformation by 2024 and the pursuit of net zero. Agtech companies focused on urban farming, plant and animal protein production are experiencing momentum as demand and global food insecurity drive production of locally grown food and crops for export. Agrifood exports also remain a staple contributor to Alberta's GDP, with \$14.1 billion in exports in 2021, an increase of 8.5 per cent from 2020.

Calgary is emerging as a hub for innovation in agribusiness, led by a transformational shift to integrate technology with agricultural practices. Calgary-based accelerators and incubators specializing in ag investments – such as SVG | Thrive, CDL-Rockies, Plug and Play Alberta and Tall Grass ventures – are investing in Calgary-based ag startups to catalyze this shift. In 2022, The 51 Food and Agtech Fund announced up to \$50 million would be invested in Canadian businesses in the ag, food and aquaculture tech sectors.

Agribusinesses have a strong Calgary presence, as well as rural presence. Urban farming companies such as Agriplay are contributing to Calgary's downtown vibrancy with plans to convert 65,000 sq. ft. of rentable office space into an elevated urban farm.

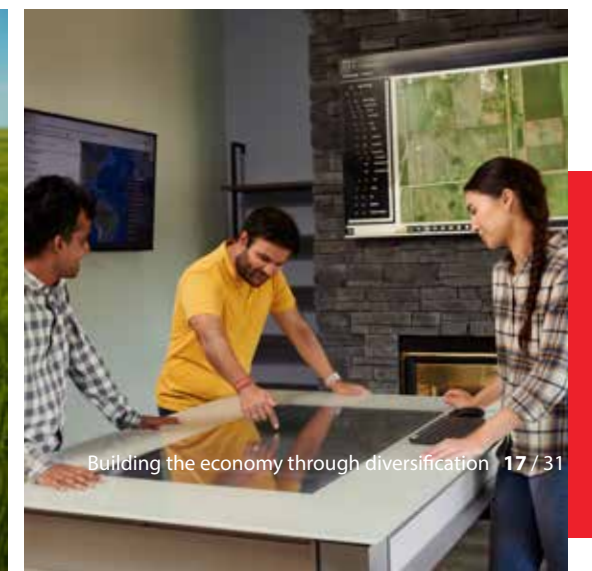
The Government of Alberta's recent announcement of the Alberta Agri-processing Investment Tax Credit will support business investment and expansion of value-added agri-processing in Calgary and the province.

This tax credit is one solution to the hesitation we've heard directly from industry about what's needed to make Alberta a more competitive agri-processing jurisdiction. With this momentum, enhanced international trade opportunities for Albertan agribusinesses – particularly for value-added agri-food products – will emerge for local products in Canadian and global markets.

Calgary-based agribusinesses are projected to invest

 **\$246 M**

in digital transformation by 2024 and the pursuit of net zero



**BUILDING THE ECONOMY THROUGH DIVERSIFICATION:
THE OPPORTUNITY TO DIVERSIFY**

Sector-specific provincial investments to attract skilled talent along with competitive incentives will position Alberta for long-term success. With recent wins in the Calgary region, investments in these key sectors will continue to attract investment and create jobs for Albertans.

Calgary is recognized as a global hub for cleantech innovation and a leader in the net-zero energy transition, ranked in the

 **TOP 30**


of 286 Cleantech Ecosystems in the world by Startup Genome in 2021.

Calgary is experiencing the

 **FASTEST**

pace of tech workforce growth in North America, according to 2022 LinkedIn Talent Insights.

Calgary is recognized as a **fintech ecosystem to watch in North America** by Startup Genome and placed

 **32ND** among the **Top 50 Fintech Ecosystems in the world** for populations under three million.

Calgary is ranked a top tech talent city and job market in North America, with

 **22 per cent**

growth in tech talent and total tech jobs over the last five years. Calgary ranked **28th among the Top 50 North American Markets** in the CBRE 2022 Scoring Tech Talent Report.

Calgary ranked the fourth highest city in Canada for venture capital investment in 2022 with

 **\$647 million** invested through **64 deals**.

BUILDING THE FUTURE THROUGH INNOVATION


Positioning Calgary and Alberta as the destination of choice for innovators and visionaries is a priority for both Calgary Economic Development and the Government of Alberta.

Calgary is an emerging creative and innovative hub solving global challenges. Across sectors, visionaries are developing solutions for cleaner energy, safe and secure food, data-driven health solutions, digital solutions in virtual reality and gaming, the efficient movement of goods and people and technology yet to be discovered.

Digital transformation is proven to drive business recovery, growth and resilience across Alberta, and Calgary companies are projected to lead the \$20 billion spend on digital transformation in Alberta by 2024.

INNOVATION IN CALGARY

Innovation is a key driver to achieve the vision for Calgary as a future-proof, sustainable economy in the economic strategy. Entrepreneurs, innovators and creators are taking notice, moving to Calgary for the limitless opportunities and internationally competitive business environment.


11X
return on funding
committed to OCIF

To build on this momentum, Calgary Economic Development and the Opportunity Calgary Investment Fund (OCIF) are working collaboratively with The City of Calgary and Platform Calgary to design and build an Innovation District. Alongside partners, an Innovation District Scoping Study was conducted in 2022 to validate the potential for an Innovation District in Calgary.

An Innovation District is a space for creators and innovators to connect and collaborate to drive new ways of working. Innovation Districts exist in numerous major centres across North America such as Kendall Square in Boston, Cortex in St. Louis, and the Austin Innovation District.

Previous research by Calgary Economic Development benchmarked international innovation centres in Austin, Greater Helsinki, Tel-Aviv, Montreal and Toronto-Waterloo, conducted economic data analysis and engaged with the local innovation ecosystem. It was recommended that an Innovation District in Calgary could thrive by:

- Fostering collaboration and creative collisions.
- Positioning role model firms to serve as visionary influencers.
- Generating ecosystem collaboration to solve industry challenges.
- Embracing Equity, Diversity, Inclusion and Accessibility to unlock new possibilities.
- Having government support to de-risk early-stage investments.
- Creating a pipeline for startups to increase scale-up success through support from incubators and accelerators.
- Having a critical mass of scale-up investments to build a mature ecosystem.
- Leveraging storytelling to build momentum and change perceptions.

Since 2018, foundational work to develop Calgary's innovation ecosystem has been facilitated through OCIF, through investments in accelerators, incubators and fund managers. These investments support startups to scale to the size of their ambitions in the Calgary region.

Investments in these organizations help scale local companies, strengthen the talent pipeline and position Calgary as an opportunity-rich global innovation hub.

Effective Q3 2022, OCIF investments were projected to spur up to \$790 million in economic activity – a more than 11 times return on funding committed. The investments support the creation or scaling of approximately 500 companies, and the absorption of over 465,000 sq. ft. of office and commercial space.



OPPORTUNITY:
Accelerate record-setting venture capital investment in Calgary and scale Albertan businesses to global markets by investing in the development of a centralized Innovation District in Calgary.

OPPORTUNITIES IN CALGARY’S INNOVATION DISTRICT

The addition of an Innovation District in central Calgary has the potential to create significant annual economic output. Innovation-related job compensation is an average of 1.5 times higher than the average job in Calgary, making an Innovation District a critical step to leverage innovation and technology for Alberta’s economic diversification and growth.

As a benchmark, the Cortex Innovation Community in St. Louis generated approximately \$2.1 billion in regional economic output in 2018. This opportunity is a possibility for Calgary, with the vision for the Innovation District to have a centralized, physical and digital (or virtual) presence.

Already, there are various nodes of innovation under development across Calgary including:

- The University of Calgary’s University Innovation Quarter (UiQ)
- Quantum City – University of Calgary
- Taza Development – Tsuut’ina Nation and Canderel
- YYC International Airport

This central Innovation District will not compete with, but rather complement and connect these existing assets. Since innovation is a priority for the Government of Alberta, further investment in an Innovation District could support talent accelerators, downtown vibrancy, transit connectivity, creative economy and health hubs through a centralized physical and virtual space.

INVESTMENTS IN INNOVATION

Investment in an Innovation District would advance the downtown revitalization priorities of the Government of Alberta and the City of Calgary:

- To date, and as part of the 2023-2026 Service Plans and Budget, The City of Calgary has invested a total of \$10.1 billion in city-shaping capital investments in Calgary’s downtown in Arts Commons, the Glenbow, the Greenline, Eau Claire Plaza and the BMO Centre.
- In the 2023-2026 Service Plans and Budget, The City of Calgary approved \$110 million for downtown improvement and revitalization.
- Budget 2022 saw an initial investment in Calgary’s downtown from the Government of Alberta of \$5 million.
- In 2022, the Government of Alberta launched a working group to advise on leading the revitalization of Calgary’s downtown.
- In 2021, The City of Calgary invested \$200 million to implement the Greater Downtown Plan, an investment in office-to-residential conversions.

**BUILDING THE FUTURE THROUGH INNOVATION:
 THE OPPORTUNITY TO INNOVATE**

Visionaries can scale ideas to the size of their ambitions in Calgary. An Innovation District will scale innovative and creative ideas to global heights, attract the realization of investment and contribute to Calgary’s downtown vibrancy. Government support and funding will expedite economic benefits from this Innovation District and accelerate Calgary as a creative leader and innovative hub in North America.





BUILDING OUR WORKFORCE AND CREATING JOBS

Attracting and retaining talent is an important driver for innovation, competitiveness and economic prosperity and is vital to the growth of Alberta's cities, industries and overall economy.

EXPANDING ALBERTA'S WORKFORCE

Investments in upskilling programs are proven to strengthen Alberta's workforce. Calgary's economic strategy, *Calgary in the New Economy*, aims to create opportunities for the economic participation of historically underrepresented and marginalized communities, newcomers and equity-deserving groups.

An example of this is the Energy to Digital Growth Education and Upskilling Program (EDGE UP 2.0). This reskilling initiative is led by Calgary Economic Development and delivered in partnership with Future Skills Centre of Canada, Information Communication and Technology Council (ICTC), the University of Calgary, SAIT, Bow Valley College, Mount Royal University and Riipen.

The award-winning program supports professionals displaced from the energy sector to pivot their careers into tech. The five-month program offers tech training in areas such as product management, data analytics, cyber security, AWS cloud computing, full stack software development and IT network management.

Of the EDGE UP participants, 44 per cent are newcomers or racialized people, 24 per cent are women, 40 per cent have a PhD or Master's degree and 57 per cent have been unemployed from oil and gas for over two years. EDGE UP grads are mid-career professionals entering the tech workforce as new professionals, but their prior years of experience make them valuable employees with existing business acumen, project management skills and now, in-demand tech skills.

Since the pilot, over 200 EDGE UP graduates have pivoted careers and secured full-time employment. Currently, over 100 local employers are engaged in the program through work-integrated learning opportunities, capstone projects and post-program career opportunities. With an average of 14 years work experience, EDGE UP graduates are prepared for a career transition across all sectors with business acumen, project management skills and now, digital knowledge for the new economy.

Reskilling and upskilling programs and job development initiatives help create an adaptable and agile workforce in Alberta.

OPPORTUNITIES FOR ALBERTA'S WORKFORCE

Further incentive is needed as we help our workforce transition to the needs of the new economy. Financial support through operational funding for in-demand reskilling programs – as well as bursaries or stipends for students requiring financial support – will help to develop a relevant and resilient talent pool and fill critical labour shortages.

The current challenging economic environment can cause students to prematurely drop out of re-skilling programs. Access to personal financial stipends would enable more unemployed Albertans develop in-demand skills to support industry needs.

To address emerging critical skill gaps, employers, community-serving groups, industry and government will provide valuable insights to Alberta's workforce challenges at the Calgary

OPPORTUNITY:

Create opportunities for Albertans to succeed in the workplace by investing in upskilling programs and providing financial support for students. Understand and measure critical gaps and opportunities for Calgary's workforce by investing in Calgary's Talent Supply and Forecasted Demand Study.



Credit: Invest Alberta and Roth & Ramberg

Economic Development Workforce Symposium in mid-2023. Together, industry stakeholders will establish criteria for the upcoming labour market study.

Financial support for the 2023 Talent Supply and Forecasted Demand Study, executed by Calgary Economic Development, would elevate the breadth of talent surveyed and equip the next generation of Alberta's talent for the skills required in the new economy.

This comprehensive survey will also track equity, diversity, inclusion and accessibility (EDIA) of the labour market and assess skills required in the transition to net zero. Data from this survey will be shared with industry and educational institutions to support the next stage of workforce development initiatives to build Calgary's talent pool.

The Government of Alberta is addressing youth unemployment, a persistent problem in Calgary and Alberta, through the Alberta Jobs Now program. This program – as the largest job development program in Alberta's history – successfully advances tactics to attract talent and create opportunities for all, supports employers and positions Alberta as a competitive business environment. These are also the priorities outlined in the economic strategy, *Calgary in the New Economy*.

Adjacent to the Jobs Now Program, the Work-Integrated Learning Pilot Program – developed in partnership with Calgary Economic Development, the Future Skills Centre, PrairiesCan and the Government of Alberta – aims to grow a skilled talent pool and equip students with real-world experience to thrive in the new, digital economy.

By providing private and non-profit businesses with job supports through the Alberta Jobs Now Program, employers can apply for funding to offset the cost of hiring and training Albertans in new or

vacant positions. Expanding parameters of eligibility for this program to include youth, equity-deserving communities and those currently residing outside of Alberta would:

- Support the province's economic recovery.
- Help businesses re-open or grow their workforce.
- Equip Alberta's workforce with skills for today's new, digital economy.
- Encourage employers to diversify hiring practices and employ newcomers.
- Help employ skilled newcomers, closing the gap for Alberta's labour market shortages.
- Position Alberta as a welcoming place to settle in.

Currently, while Alberta promotes the migration of talent to the province, the Jobs Now funding does not apply to those who are new residents of the province or those holding a valid Open Work Permit already residing in Alberta – i.e. international students. By expanding eligible applicants, immigrant-serving organizations would be able to further leverage this asset with local employers and extend support for the settlement of newcomers to Alberta.

Targeted efforts to expand this program would create jobs, fill labour shortages and serve as a significant talent attraction tool. Creative industries, for example, is a sector currently under pressure.

**BUILDING OUR WORKFORCE AND CREATING JOBS:
THE OPPORTUNITY TO STRENGTHEN ALBERTA'S WORKFORCE**

Comprehensive reskilling and upskilling programs – with financial support for employers and employees – build Alberta's workforce, fill critical skill gaps and encourage economic diversification.

**OPPORTUNITY:
Grow Alberta's workforce with the expansion of the Alberta Jobs Now Program to include youth, equity-deserving communities and those currently residing outside the province (not a Canadian citizen or permanent resident but hired for work in Alberta).**





BUILDING FORESIGHT THROUGH ECONOMIC INTELLIGENCE

THE IMPORTANCE OF STRATEGIC FORESIGHT

In times of rapid change, growing complexity and uncertainty, strategic foresight is needed to help prepare for the unexpected. Using a range of methodologies, such as scanning the horizon for emerging changes or signals and developing multiple scenarios, strategic foresight helps reveal useful ideas about the future. While it does not attempt to “get the future right”, foresight aims to expand and reframe the range of possible developments that need to be taken into consideration.

Strategic foresight is driven from and validated by the community. As stewards of *Calgary in the New Economy*, Calgary Economic Development works with the business community, post-secondary institutions, shared interest groups and civic partners to achieve collective objectives towards the economic strategy.

Currently, we openly share research with all stakeholders but want to increase the volume, efficiency and effectiveness of sharing insights and raw data. Specifically, we want to increase opportunities for provincial and municipal governments to contribute to strategic foresight in the same way as the private sector and community members.

Calgary Economic Development’s focus on tackling long-term economic challenges will be supported by building organizational and community capacity for better strategic foresight. As a community connector, our activation of ecosystems will be enhanced by increasing the frequency, intensity and inclusiveness of interactions with and between community members.

OPPORTUNITIES IN STRATEGIC FORESIGHT

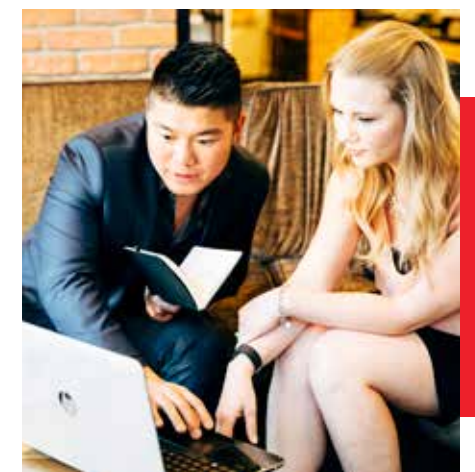
Data drives our understanding of the current and future state of Calgary’s economy. To encourage economic diversification across Alberta, an investment in innovation management platforms would help identify and anticipate economic trends to retain and attract businesses and talent to Calgary.

Innovation management platforms – essentially online data-driven community engagement tools – have the capability to increase the community’s understanding of complex information by facilitating the sharing and exchange of ideas.

The use of these platforms helps increase the inclusiveness of community stakeholders who interact with and evolve economic foresight information, which in turn drives shared action. The voices and perspectives of community members from diverse backgrounds can be captured through this software, with an increase in sample size and engagement opportunities.

A subscription to an innovation management platform would be a strategic investment to facilitate foresight activities with Calgary-based small and medium sized businesses. The platform would support community engagement on strategies and initiatives led by Calgary Economic Development – and community stakeholders developing their own strategies and investments – based on data from foresight processes.

OPPORTUNITY:
Facilitate retention and expansion of Calgary businesses through investment in innovation management platforms (online data-driven community engagement tools).





OPPORTUNITY:
Anticipate the Calgary region's future economic conditions by investing in economic intelligence systems.

To enhance economic intelligence, Calgary Economic Development is creating a data strategy to improve the ability to develop strategic intelligence about Calgary's business environment. Investments to enhance Calgary Economic Development's data systems will improve the organization's capabilities to develop and share insights used to achieve the objectives of *Calgary in the New Economy*.

Enhancements to Calgary Economic Development's data systems would be designed to:

- **Improve access to data for internal and external stakeholders.**
 - With additional data, we will identify signals from environmental scans that may indicate high-impact economic change.
- **Enable community and industry partner collaborations to co-develop datasets.**
 - Ex. The Gateway Connects platform tracks a continuous record of the needs of and supports accessed by each and every newcomer to Calgary. This data could be integrated with downstream labour market information (LMI).
- **Efficiently sort, analyze and share data with less resource-intensity.**
- **Proactively sort 'good data' to enhance accuracy and value of insights to stakeholders.**

**BUILDING FORESIGHT THROUGH ECONOMIC INTELLIGENCE:
THE OPPORTUNITY TO LEVERAGE DATA**

Data drives our understanding of the current and future state of Calgary's economy. Through community engagement and online tools we can anticipate trends and advance economic diversification in Calgary and Alberta.

CONCLUSION

Calgary Economic Development and the Government of Alberta have the opportunity to collaborate and create a sustainable, prosperous future for Albertans. Together, we continue to build a competitive business environment, stimulate economic diversification, and attract bright minds and big ideas to help solve global challenges.

HOW WE WORK TOGETHER:

- **Building the economy through diversification.** Sector-specific investments will increase our skilled talent pool and attract business investment, positioning Alberta for long-term success.
- **Building the future through innovation.** Digital transformation is driving innovation across sectors. To build on Calgary's record-breaking venture capital investment, establishing a physical and virtual Innovation District will help scale Albertan businesses to global markets.
- **Building our workforce and creating jobs.** In the new, digital economy we create opportunities for Albertans to succeed in the workplace through reskilling and upskilling programs such as EDGE UP for displaced energy workers and the Work-Integrated Learning Pilot. We grow Alberta's workforce by supporting local companies and job seekers through access to the Alberta Jobs Now program.
- **Building foresight through economic intelligence.** Data-driven community engagement will retain, expand and prepare Calgary businesses for possible economic challenges. Economic foresight, informed through inclusive community engagement, will make the Calgary-region's economy more resilient.

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