

# Creative Economy Strategy For Calgary

Research, Strategy and  
Implementation

Final Report – April 2024

**calgary** economic  
development

 **Nordicity**

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## Executive Summary

### What is the Creative Economy?

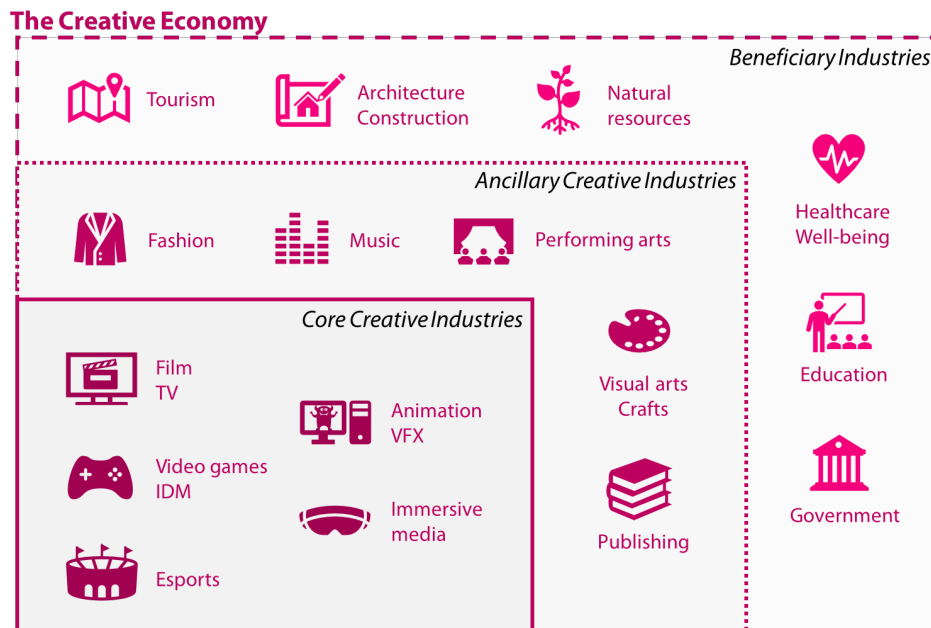
In broad strokes, the Creative Economy foregrounds the role of creative assets in the growth and development of local and regional economies. Specifically, creative economies frame the interplay between technology, intellectual property, and tourism at the economic, social, and cultural level, cultivating knowledge-based, technologically intensive creative outputs. As an economic approach that values innovation, creativity, and placemaking, the creative economy is “not only the most rapidly growing sector of the world economy, it can also be a highly transformative one in terms of income generation, job creation, and export earnings” – if properly constructed.

In turn, ‘creative industries’ is a term that encompasses the economic activities around the production, distribution, and maintenance of media, design and/or entertainment products, services, and experiences. While it has varying scopes in different jurisdictions, the contemporary usage of the term tends to refer to technologically- and service-oriented sectors that digitally mediate the production and consumption of creative goods.

In this context of this document, the strategy is focused on the **core Creative Economy** as defined by Calgary Economy Development’s (CED’s) mandate, namely:

- linear media (film and TV production);
- animation and digital visual effects (VFX);
- video games;
- esports; and,
- immersive media.

The other (**ancillary**) **creative industries** will see positive spillover effects from the strategy but are not the focus of its recommended actions. In turn, there are several other “**beneficiary**” **industries** that will also see positive impact from the development of both the core creative economy and ancillary creative industries and the use of their technology in verticals that are not related to a more traditional and artistic understanding of creativity.



## Calgary in the New (Creative) Economy

Though the energy sector has historically dominated Calgary's economic narrative, there is a timelier story being told about the ways in which Calgary is embracing a changing social and economic order, as expressed in *Calgary in the New Economy*. The city's increasingly diverse industrial profile, headlined by a confluence of burgeoning creative industries, is already driving new opportunities to redefine Calgary's economic identity and global export potential. The City's strategic plan thus recognizes the integration of the creative economy within the city's broader economic narrative, positioning creative industries as an emerging growth cluster alongside areas like life sciences and financial services.

This strategy builds upon the foundation set by *Calgary in the New Economy* and considers how the creative economy can support, and be supported by, five broad strategic priorities:

- **Innovation** – The principles of innovation being advanced through *Calgary in the New Economy* are the same as those that drive success and scale in the creative industries. The document suggests that supportive programming and development opportunities are essential to strengthening an internationally relevant creative economy. The spirit of innovation found in Calgary is an essential ingredient toward creating products and intellectual property that capture global relevance.
- **Talent** – Whether by developing talent locally or attracting established talent from other places, Calgary is seeking to shrink the gap between unmet demand and available supply of talent in the creative industries, and in doing so equip Calgary's creative economy to leverage its cultural and creative products for global market penetration.
- **Livability** – The cultural and creative industries not only depend on these livability conditions to be met to support talent attraction and retention, but their work regularly contributes to community vibrancy. The cultivation of creativity helps to facilitate self-expression and human connection, while higher educational achievements, enhanced mental health and improved general well-being are all positively correlated with vibrant local creative industries.
- **Business Environment** – Calgary is seeking to reinforce its identity as one of the most business-friendly cities in Canada. By championing effective and efficient policies and resources that support business development, Calgary is pursuing global relevance and connectivity for its business community.
- **Brand** – Calgary is building a brand as “an iconic city” full of energy, ambition, optimism, and opportunity. A thriving creative economy can become increasingly central to that brand. As Calgary seeks to change the narrative around what Calgary has to offer, there are few better ways to tell that story than through the cultural and creative products that people enjoy around the world.

## Pillars of a Successful Creative Economy and Situational Analysis

There are three key drivers of success (“pillars”) in creative industries: **Access to Infrastructure, Talent Development and Retention, and Investment and Entrepreneurship**. These pillars align with the five strategic priorities established at the municipal level. Moreover, using these pillars as a foundational framework can enable success similar to that seen around the world while providing room for flexibility and finetuning to the specific features of Calgary’s Creative Economy.

	Talent	Livability	Business Environment	Innovation	Brand
<b>Talent development and retention</b> Identification of transferable skills across the creative economy, dynamic assessment of needs, policies that support talent movement and integration, competitive incentives, and DEI initiatives	X	X	X		X
<b>Investment and entrepreneurship</b> Vibrant technology and innovation ecosystem, capacity to generate and exploit IP, access to markets, pathways to success, rich and connected support network			X	X	X
<b>Access to Infrastructure</b> Specific and non-specific infrastructure, collaborative and knowledge-sharing platforms and spaces, creative hubs/districts and digital infrastructure		X	X		X

One can assess Calgary’s situation through the lens of the strategic pillars:

### Talent

For most companies operating in the Creative Economy, the primary resource (and expense) is human capital. The well-established linear service production (film/TV) expressed the need to backfill some roles, urging for the **continued development and update of the local training pipeline**.

Currently, Calgary is limited in its ability to absorb talent in most of the Creative Economy (apart from service productions in linear media) by the **notable lack of employers**. Eventually, many graduates and junior talent leave the province to find more reliable job opportunities in other Canadian creative hubs, creating a shortage of local mid-career and senior talent.

As such, by the time a company reaches a certain development stage and is ready to scale, there is no local talent to support this growth phase. However, there are also few Calgary companies that not only have reached this stage but have also expressed this desire to scale. Regulatory changes that support scaling would only be effective if enough local companies are **ready and willing** to scale.

### Investment and Entrepreneurship

While a fee-for-service approach is a totally viable and widespread business model in creative industries, the upside of an ecosystem predominantly comprised of service providers is limited if the objective is the robust economic growth of the sector.

Service companies in Calgary should still be supported in their efforts to access new markets and develop strategic partnerships, but special attention should be paid to developing technical and creative intellectual property (IP). There is **great potential from IP** in Calgary, however companies that focus on their own original content or technology are **mostly small or also providing service work**.

Calgary has a unique situation with a unique **concentration of prospective local investors** (family offices). However, these investors are **not well-educated** on the business of creative industries nor the potential return on investment of IP-based products. There is currently no platform for them to learn about the Calgary Creative Economy and investment opportunities.

## Infrastructure

In the short term, Calgary has sufficient infrastructure to sustain the current level of activity in linear production (i.e., soundstages). At this stage, infrastructure developed for other creative industries such as video games and immersive media would likely struggle to find a viable base of local customers.

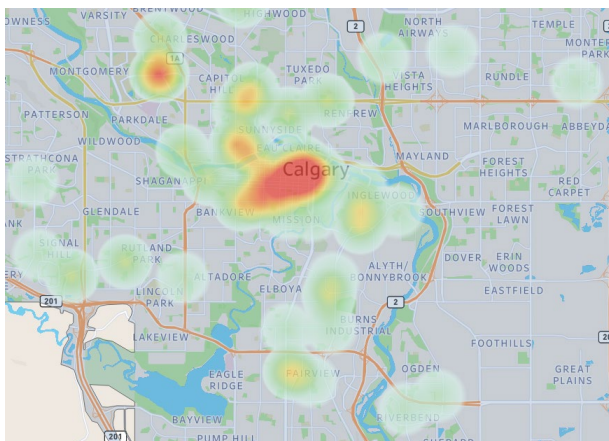
As such, in the context of this strategy, **infrastructure is a secondary, if still important, element**.

A longer-term goal should be to create an environment where being on the leading edge is a given, while also developing the city's reputation as a place where creative events (location-based experiences) occur. Infrastructure investments can also enable smaller companies, which are most common in Calgary, to collaboratively work on and/or create larger projects, for instance by integrating workflows via cloud technology.

## Summary

These three pillars are interdependent and mutually reinforcing. For example, Calgary businesses will benefit from cutting edge infrastructure and an environment conducive to innovation and experimentation. Growth plans will be made possible by the availability of talent and skills that match the fluctuating needs of the industry. Talent will be attracted (and retained) by the creative and inclusive ecosystem that features growing companies. Investment will flow to support the development of this ecosystem and high-profile projects (some of which will be Alberta-owned IP).

In Calgary, there are about 120 organizations engaged in at least one core creative industry.



Core Creative Industry	Number of organizations
eSports	10
Animation and VFX	19
Linear Media	16
Immersive Media	25
Games	34
Support Organizations	14

The barriers identified across the five core industries, although diverse in nature, collectively pose hurdles to the realization of the full potential of the Creative Economy in Calgary.

## **Linear Media**

While Alberta still ranks below Ontario, British Columbia, and Quebec in terms of annual production volume, there has been an uptick in the number of high-profile projects choosing the province. Alberta successfully hosted Season 1 of HBO's *The Last of Us*, which boosted foreign location service production to a record \$441 million in 2021/22. Although most Calgary-based film/TV companies provide service production work, there are a few that actively and consistently invest in their own IP development. While Alberta's tax credit has attracted medium and large-scale productions, consultation suggests that more significant and stable production volume (e.g., through the combination of service and Calgary-owned IP) would facilitate talent retention and support sustainable growth.

## **Animation/VFX**

Even though Alberta accounts for a marginal share of the Canadian revenue from Visual effects and Animation services for audiovisual works, the province is home to a vibrant creative hub of independent studios and animation service providers. Animation/VFX in Calgary counts about twenty companies ranging from micro-studios (1-2 persons) to medium enterprises (up to 15 employees.) Most local companies offer service production, but two-thirds of the industry indicate having a future or existing plan to develop and exploit IP. They however face the challenges of investment/financial support and access to talent to support this business model.

## **Game Development**

Video game development companies in Calgary employ about 200 people. Within this network of primarily independent studios, most of the longstanding talent are mid and senior level. The lack of scalable companies and incentives to support this growth limits the degree to which the industry can absorb junior talent (e.g., new graduates). That said, Calgary does have a vibrant and collaborative gaming community. Post-secondary institutions also have been actively designing and updating game development related certificates and programs.

## **Esports**

The Canadian esports industry is concentrated in two major Canadian cities: Toronto and Vancouver. That being said, the province is investing in the development of this sector, as demonstrated by the esports strategy unveiled in 2022. Alberta has a rapidly developing intercollegiate esports structure and more than 100 community tournaments are taking place every week. Alberta's esports association (AESAs), which represents the provincial esports sector, acknowledges the avenues for improvement to transform a "decentralized" Canadian hub for esports into a structured leadership that goes beyond grassroots capacities.

## **Immersive Media**

Canada is well positioned in the global immersive media market, which makes for significant domestic competition, with leading hubs in Montreal, Vancouver, and Toronto. The immersive media space in Calgary is quite dynamic given the size of the city, with some entertainment companies and a large concentration of business solutions. This dynamism is due in part to the broader innovation and SME ecosystem, and a network of postsecondary institutions that have a vested interest in immersive technologies. Immersive entertainment is also gaining traction in Calgary as the general public becomes more familiar with location-based experiences that these technologies enable.

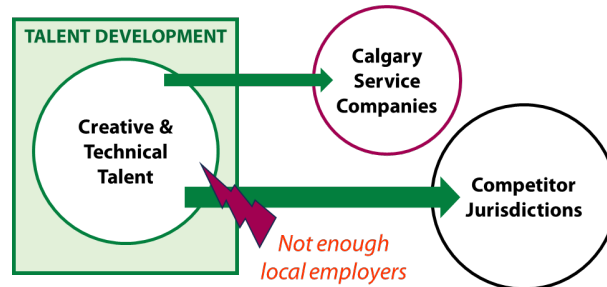


## Problem Statement and Strategy Rationale

The challenges facing the Creative Economy in Calgary can be summarized – and addressed – as follows:

### 1. Challenge: To develop a pool of creative employers

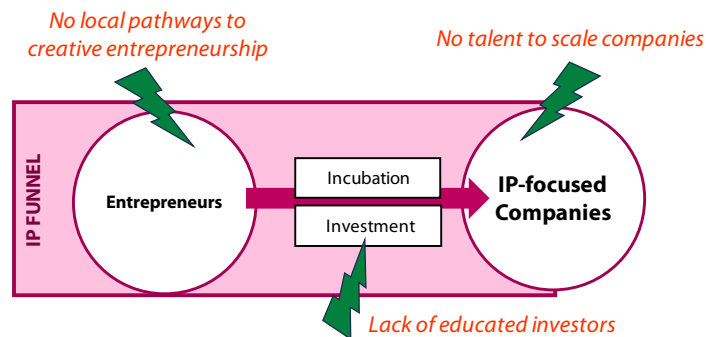
Beyond AV production, the Creative Economy in Calgary **lacks the employers** looking to scale their businesses that would help attract (and retain) talent and investment. In the current context, **talent development efforts would most likely benefit competitive jurisdictions** as only a fraction of Calgary-based graduates would find local job opportunities.



The strategy thus needs to address this lack of employers by supporting the **development of new – and the business expansion of existing - companies that focus on intellectual property**, as these companies are (in general) more sustainable and scalable than those focused on fee-for-service work. With the adequate support ecosystem and investment, these companies would allow the local Creative Economy to absorb a larger talent pool (either by attracting or retaining talent).

### 2. Challenge: To align the talent pipeline

A strategy that focuses solely on investing in Calgary grown IP would in return face a two-fold challenge regarding talent. On one hand, to develop more employers there need to be sector-specific talent development initiatives that **create strong entrepreneurial pathways** to prepare the next generation of founders. On the other hand, companies will need **creative and technical talent to grow and scale**. If the local talent pipeline does not provide these critical resources, high-profile companies will need to redouble efforts to attract talent from other jurisdictions, which could restrict growth prospects.



Consultation revealed that there are **few companies that meet the three conditions for scalability**, that is (a) a desire to scale, (b) an attractive, market-ready product/service, and (c) the internal capacity (i.e., talent) to take their project to the next phase. As such, these employers also lack sufficient capacity and competitiveness to attract and retain talent.

There is also a **lack of local educated investors** that understand how to identify opportunities in the Creative Economy (which are currently limited). Their support will necessary to transform creative teams into scalable and sustainable companies.

### **3. Solution: Combine growth to achieve scalability**

The appropriate approach for Calgary is to combine an entrepreneurship funnel with targeted talent development initiatives.

Both aspects of the talent pipeline are required for the Creative Economy to flourish, but at this stage, the **immediate focus should be on building entrepreneurial skills**. The pipeline for creative and technical talent training should be monitored and adjusted to meet the needs of the existing service companies, but should be expanded when an appropriate population of scalable IP companies exists in Calgary.

In parallel to entrepreneurial talent training, **investor education** activities should be carried out in the short term to set the stage for the next step (investment/incubation). With a better understanding of the context and business models in the Creative Economy, local investors will be ready to examine the pitches of emerging companies.

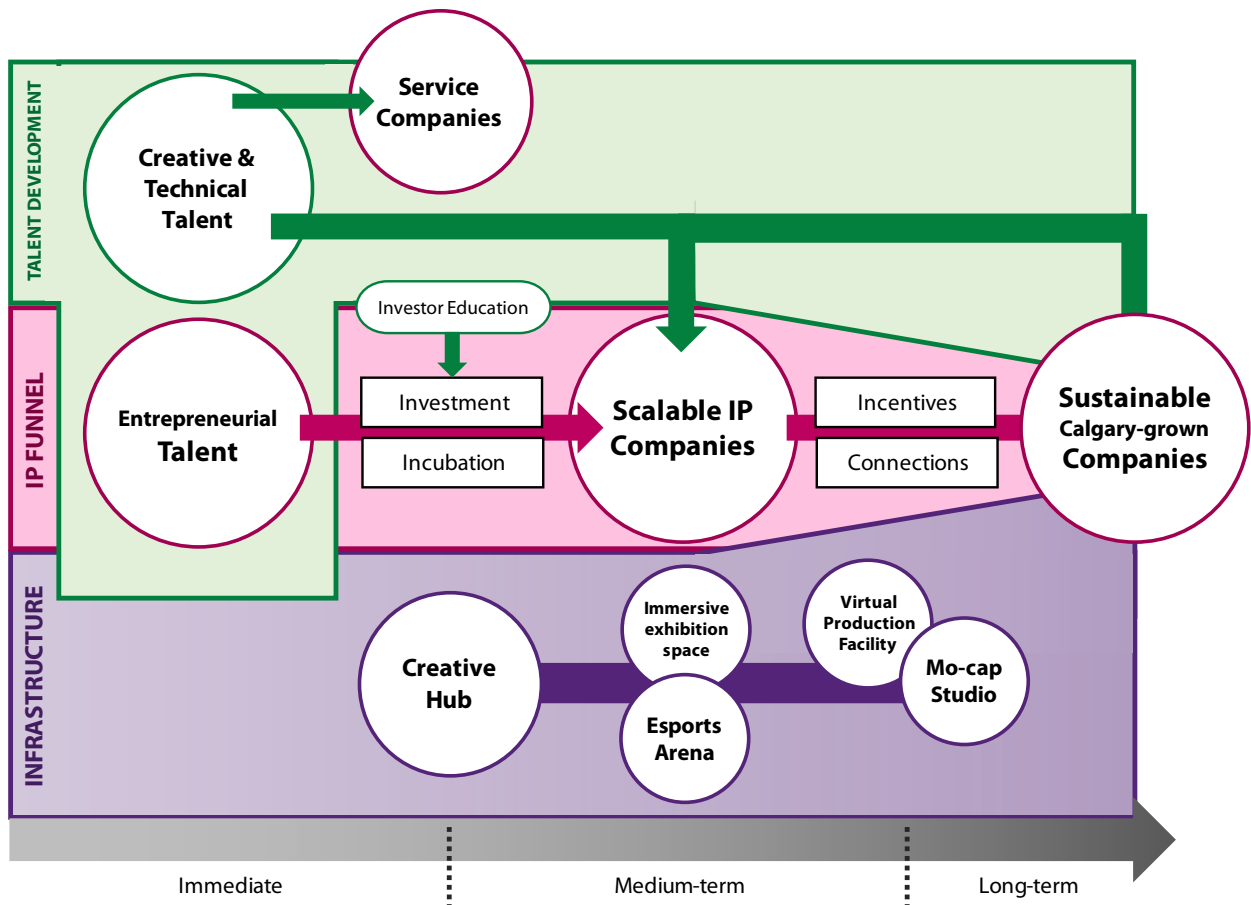
This approach will ensure create the condition for the emergence of scalable companies that will drive informed investment, employment, innovation and creativity: Calgary-grown companies developing Calgary-made products.

### **4. Solution: Amplify efforts with infrastructure**

The dual approach addresses two of the three strategic pillars identified. The third component, Infrastructure, will play **a supporting – but valuable – role in this strategy**, facilitating collaboration and access to technology. The development of industry-specific infrastructure (e.g., eSports facilities) and more general facilities (e.g., a creative economy innovation hub) will stimulate the emergence of creative teams and eventual scalable companies. Some activities will be amplified by supporting infrastructure. For instance, incubation should take place in the creative hub to facilitate knowledge-sharing, host workshops, industry events and investor meetings. As such, infrastructure not only ties into the attractiveness of the city for both talent, but also for investors.

In summary, the **three dimensions should be interwoven** in a cohesive strategy that supports the strong local service industry while preparing talent, infrastructure and the regulatory framework for the emergence of an entrepreneurial culture.

The diagram below illustrates the strategic pillars and the outcomes they support.



### 5. Implementation: Let the Strategy play out over time

While all three dimensions should be developed in parallel to achieve this level of complementarity, it must be noted that this strategy falls within a **five-plus-year horizon**. As a result, not all efforts and investments should be made in the short term.

For instance, incentives such as tax credits (e.g., for games and IM companies) are most effective for companies ready to scale and/or sustain their growth. However, Calgary is not yet home to many such companies, so there is time to effect that policy change. Rather, **priority should be given to actions that first support the creation of these potential targets** (e.g., balanced talent development, incubation).

### 6. Implementation: Establish strategic partnerships

This multidimensional sector strategy cannot be undertaken by CED alone. Rather, it requires **strategic partnerships within the support ecosystem**. In this sense, every support organization can play to its own strengths and enter the framework where and when needed. For example, CED has the resources (and mission) to advance opportunities in achieving economic success and would therefore be best positioned to support scalability. Incubation, on the other hand, will be better delivered by Innovation Calgary and/or Platform Calgary. Of course, for CED to play its optimal role, it will also need to be party to the creation of more creative industry companies that have the desire and means to scale.

## A Creative Economy Strategy for Calgary

The Strategy aims to strengthen the three supporting pillars of the Creative Economy and to achieve the following vision.

*Building on its existing reputation as an innovative and dynamic city, Calgary will become known as the best place in Canada – and one of the best places in the world – to collaborate with creative talent, and to develop, launch, scale, and maintain creative IP.*

The cohesive Creative Economy strategy will support the strong local service industry while preparing talent, infrastructure, and regulatory framework for the emergence of an entrepreneurial culture through:

1. **Business Attraction - Full Service In-bound Service Production:** long the 'bread and butter' of Calgary's creative economy, it is important to maintain the City's reputation as a destination for world-class production, moving it to a full-service destination. In turn, this reputation will enable and encourage investment in other elements of the Creative Economy.
2. **Talent Acceleration – Building the Local Talent Pool:** Talent being the cornerstone of the Creative Economy and one of the key catalysts for growth, it is imperative that the local talent pool reflects the need of the industry to best support scalability. Constant monitoring and adjustment will be required to identify in-demand areas and relevant programs and skills. Finally, to stimulate the local entrepreneurial mindset, the talent pool will need to establish these industry-specific entrepreneurial skills needed to make IP successful.
3. **Business Expansion – Successful Entrepreneurialism and Scalability through IP Ownership:** The biggest opportunity for Calgary's creative economy is the development of new IP in several industries. From animation to games to linear audiovisual content, the strategy will need to focus on methods to support successful entrepreneurialism and scalability, and thus generate wealth for Calgary and its residents.

The success of this strategy will rely on strategic partnerships established between key organizations at various levels. As such, while CED initiated this momentum, the strategy is above all a sector strategy involving an array of municipal and provincial support organizations with the adequate resources to implement and evaluate the strategic actions listed in the following pages.

### I – Maintaining and Growing the Talent Pool

Training will be a key component to continue to deliver high-quality service production while ensuring the emergence of competitive and scalable new ventures. As such, the talent pipeline should cover creative, technical, and business skills.

Post-secondary institutions will continue to play a key role in **developing entry-level talent** for Calgary's Creative Economy. There are several opportunities from a variety of industries, including:

- Further developing micro-credential programs for key linear media roles, reinforcing the status of Calgary as a high-quality full-service production hub
- Exploring opportunities for immersive media within and outside the core creative industries
- Considering new internship and co-operative models to better fulfill the needs of students and employers
- Inviting students to leading-edge facilities and testing labs, and inviting more industry professionals into the classroom

Furthermore, there is untapped potential for **entrepreneurship** in the core creative industries, notably through the development of IP-focused businesses. The talent pipeline will play a key role in creating this appetite for entrepreneurship and preparing future graduates to develop investor-ready products. As such, the IP funnel described in Part III of this strategy integrates additional elements of talent development.

To seize these opportunities, there must be clear **lines of communication between industry** (e.g., via CED and/or industry associations), **and Calgary-based PSIs and other training institutions**. By facilitating the creation of this forum CED and partner organizations will not only enable institutions to have a clearer picture of the industry’s needs and expectations, but also to coordinate and supplement efforts.

Eventually, when more employers exist and are attempting to scale their companies, CED and its partners should **explore an incentive to help offset the cost of onboarding new talent**. For most companies in the Creative Economy, there is a gap between what is taught in an academic environment and the skills/knowledge needed to thrive in the workplace. Support to offset this onboarding cost would likely lead to the retention of more graduates in Calgary-based companies.

Irrespective of the directions taken with respect to talent development in Calgary, it is imperative that they be done in an inclusive and anti-colonial manner.

<b>Immediate</b>	<ul style="list-style-type: none"> <li>▪ Deliver entrepreneurial training, mentoring and talent acceleration</li> <li>▪ Develop and deliver investor education initiatives</li> <li>▪ Establish clear line of communications from industry to training ecosystem</li> </ul>
<b>Medium term</b>	<ul style="list-style-type: none"> <li>▪ Ramp up creative and technical talent development</li> <li>▪ Facilitate knowledge-sharing and dissemination of market intelligence</li> </ul>
<b>Long term</b>	<ul style="list-style-type: none"> <li>▪ Regularly assess industry needs and align talent pipeline</li> <li>▪ Advocate for changes to the regulatory framework to support talent attraction and retention</li> </ul>

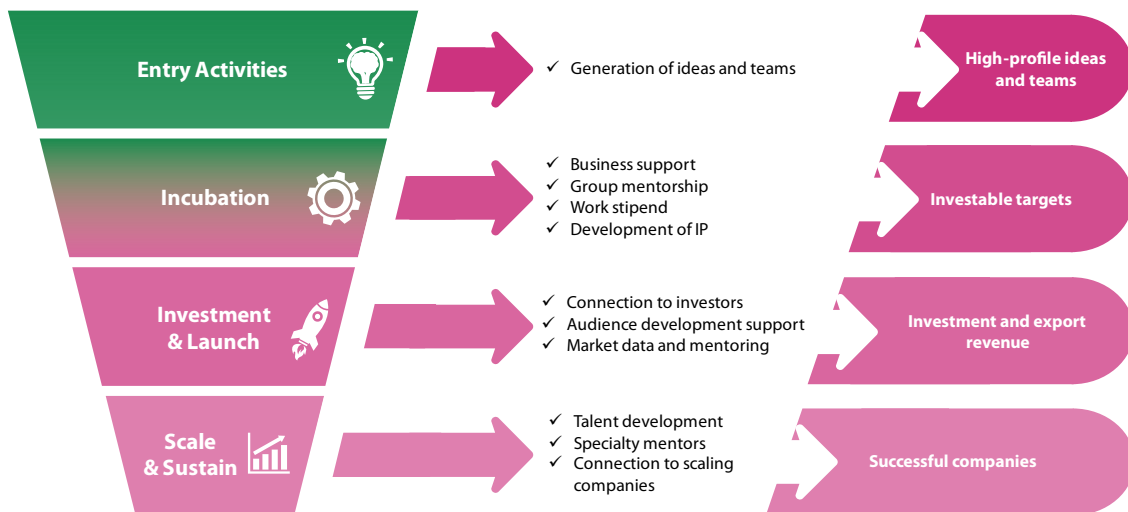
## II – Fostering Entrepreneurial Culture through IP Development

Cultivating entrepreneurship in the Creative Economy will lead to the absorption and attraction of more talent. IP is the strategic asset that will allow creative industry companies to attract investment and scale in a sustainable way. With the right training pipeline and support infrastructure, successful companies (i.e., new employers) will emerge.

Investing in **IP will be pivotal to -- and include -- talent development**, and it will lead to the development of a more economically sustainable creative industries ecosystem. The overarching goal for Calgary’s creative economy vision is to transition from being part of the known IP production to being the origin of that IP.

The process of establishing an IP funnel is designed to enable and encourage companies in the core creative industries by tapping into Calgary’s diverse communities to stimulate the creation of content set for commercial success on the global stage.

Of course, this funnel will be most relevant to those core creative industries for which IP is (or can be) a primary focus: linear media, animation, immersive media, and games.



1. **Entry activities** – The first step in the IP funnel focuses on generating ideas and teams through industry-specific inclusive and accessible entry activities, such as local jams, community events, and student competitions/capstone projects. The target audience of these activities would be anyone with an interest in generating IP.
2. **Incubation** – The next phase involves supporting teams with viable ideas, which can be considered to enter the incubation process. Instead of a grant, a stipend will be provided to teams while they work on the idea/product. This modest stipend would allow teams to “go all in” on their projects, ensuring that their focus remains on the project at hand (as opposed to making a living). Talent development activities continue as participants will also have access to group mentoring based on specific sectors, lending them access to international/global experts in their fields.
3. **Investment and Launch** – At this stage, pitches or prototypes (depending on the core creative industry) validated by international experts are mandatory for entering eligibility, though it is expected that many will derive from the incubation program. The primary focus of this stage is for CED and its partners to facilitate industry connections between companies and informed investors: distributors, publishers, or even local high-net-worth individuals looking to invest in high-potential properties and/or their underlying companies.
4. **Scale and Sustain** – The scaling efforts need talent development programs, which can be achieved through high schools and PSIs collaboration, introductions between funnel participants, and building on the existing Workforce Action Plan. On-demand access to subject-specific mentors (and similar services) will help keep companies at the leading edge. Therefore, participants at this stage are encouraged to become mentors for entry-activities. The scaling efforts will also require placemaking to attract and retain talent.

As such, the IP funnel is deeply intertwined with the efforts to strengthen the talent pipeline and placemaking investments.

<b>Immediate</b>	<ul style="list-style-type: none"> <li>▪ Design and execute incubation program for existing creative teams</li> <li>▪ Support IP development and scalability for existing creative teams</li> <li>▪ Conduct entry activities to identify next cohort of incubatees</li> </ul>
<b>Medium term</b>	<ul style="list-style-type: none"> <li>▪ Support market access and introduction to informed investors</li> <li>▪ Evaluate, revise, and deliver incubation program</li> </ul>
<b>Long term</b>	<ul style="list-style-type: none"> <li>▪ Facilitate industry connections and strategic partnerships</li> <li>▪ Advocate for incentives that support scalability strategies and business sustainability</li> </ul>

### III – Creating and Developing the Infrastructure

Infrastructure reinforces the service production environment while facilitating access to technology, knowledge sharing, innovation, and creativity for potential new entrepreneurs.

It is recommended that support organizations explore both general and sector-specific infrastructure upgrades. **Sector-specific infrastructure investments** would include:

- virtual production studios
- shared cloud-based workflow pipelines to enable more collaboration between smaller companies
- lower-cost access to facilities like advanced motion capture studios for emerging games studios
- a mid-sized dedicated esports arena that could host regional tournaments
- a dedicated immersive exhibition space that will facilitate strategic partnerships for location-based experiences

Some investments in infrastructure should be more general. For the IP funnel (described in Part II) to operate optimally, it would be housed within a dedicated **creative hub** (in which the sector-specific infrastructure could also be located). This hub would provide a space for incubation, game/animation jams, master class, and other in-person programming needed to make the IP funnel operate most efficiently. The hub would also help to offset rising rental costs for emerging entrepreneurs --and be accessible to anyone participating in the IP funnel.

Finally, it is crucial that any investment made in infrastructure be focused on **long-term value**. The Creative Economy – and the technology that powers it –evolves rapidly. As such, spaces (like the hub) should be flexible and updated on a regular basis.

<b>Immediate</b>	<ul style="list-style-type: none"> <li>▪ Identify non-specific infrastructure that can be activated</li> <li>▪ Identify space for specific infrastructure</li> </ul>
<b>Medium term</b>	<ul style="list-style-type: none"> <li>▪ Launch the Creative Hub</li> <li>▪ Design the Esports arena and the Immersive exhibition space</li> </ul>
<b>Long term</b>	<ul style="list-style-type: none"> <li>▪ Develop a state-of-art Virtual production facility and Motion capture studio</li> <li>▪ Upgrade and update infrastructure</li> </ul>

## 1. Introduction

### 1.1 What is a Creative Economy?

Before embarking on the development of any strategy, it is crucial to define its scope. That is especially true for those strategies targeting a relatively nebulous concept like a “Creative Economy.”

In broad strokes, the notion of a Creative Economy foregrounds the role of creative assets in the growth and development of local and regional economies. Specifically, creative economies frame the interplay between technology, intellectual property, and tourism at the economic, social and cultural level, cultivating knowledge-based, technologically-intensive creative outputs.<sup>1</sup> As an economic approach that values innovation, creativity, and placemaking, the creative economy is “not only the most rapidly growing sector of the world economy, it is also a highly transformative one in terms of income generation, job creation, and export earnings”<sup>2</sup>. At the core of a creative economy are political, economic, and social support mechanisms for some (or all) creative industries.

In turn, ‘creative industries’ is a term that encompasses the economic activities around the production, distribution, and maintenance of media, design and/or entertainment products, services, and experiences. While it has varying scopes in different jurisdictions, the term can apply to – though is not limited to – sectors such as music, film and television production, graphic design, game development, and architecture. However, the contemporary usage of the term tends to refer to technologically- and service-oriented sectors that digitally mediate the production and consumption of creative goods.

In this context of this document, the strategy is focused on the core Creative Economy as defined by Calgary Economy Development’s (CED’s) mandate, namely: linear media (film and TV production), animation and digital visual effects (VFX), video games, esports, and immersive media. The other (ancillary) creative industries will see positive spillover effects from the strategy but are not the focus of its recommended actions. For example, growth in the linear media, animation, and games industries may well stimulate demand in Calgary’s music industry (e.g., for scoring, soundtracks).

In turn, there are several other “beneficiary” industries that will also see positive impact from the development of both the core creative economy and ancillary creative industries and the use of their technology in verticals that are not related to a more traditional and artistic understanding of creativity.

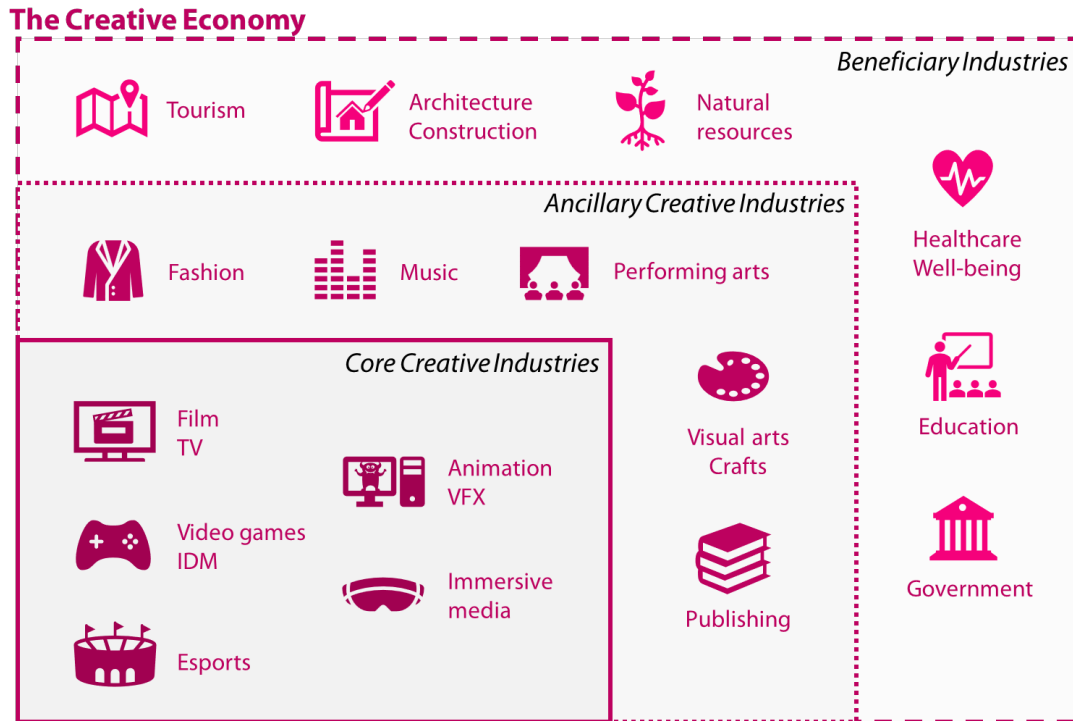
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<sup>1</sup> *United Nations Economist Network*, [New Economics for Sustainable Development – Creative Economy](#)

<sup>2</sup> *Ibid*, p. 4



Figure 1: Calgary's Version of the Creative Economy



To enable growth in the Creative Economy as a whole, this strategy presents a medium-term (three- to five-year) planning horizon. That timeframe will allow actions in the core Creative Economy to see the desired spillovers into the ancillary creative industries – and beyond. For example, improvements to Calgary’s esports offerings will take some time to materially impact its overall tourism numbers, as the sector will need time to establish itself in the minds of potential visitors.

## 1.2 What does a Creative Economy Strategy accomplish?

The primary goal of a Creative Economy Strategy is to **stimulate substantial economic benefits**, both directly (to the core industries) and through spillover effects (as outlined above). At the same time, such strategies – when successfully implemented – can have far reaching effects. For example, by attracting and retaining skilled workers, the strategy not only nurtures a thriving creative workforce but can also enhance the overall economic productivity of the city. The strategy also focuses on boosting cultural and creative exports, leveraging the unique offerings of the creative industries (mainly intellectual property) to generate value on the international market.

Simultaneously, creative economy strategies recognize the potential of the creative sector to enable growth in adjacent industries. Tourism, for example, benefits as cultural and artistic attractions and events become magnets for visitors – and potential newcomers. Furthermore, by elevating the city’s global reputation as a creative hub, and nurturing high-profile businesses, the strategy attracts investment, fostering a virtuous cycle of economic growth. While its primary focus is on core creative industries as defined above, the positive spillover effects extend to benefit the broader creative economy, contributing to the city’s overall economic vibrancy, which translates into the generation of employment, gross domestic/provincial product, and tax revenue. In fact, as discussed throughout the report, the five core industries have deep ties with the ancillary and beneficiary industries, especially in Calgary where the creative technologies are recontextualized within the **broader**

**innovation ecosystem** to develop solutions for verticals such as healthcare, construction, government, training, and education.

Another crucial objective of a Creative Economy Strategy is to serve as a **tool for facilitating coordination among existing strategies**. Recognizing the interconnected nature of the creative sectors, the strategy aims to eliminate silos, and foster collaboration by addressing common barriers and opportunities. This objective involves aligning creative economy initiatives with broader development plans, ensuring that creative industries are integrated into the city's overall economic vision. By serving as a coordinating framework, the strategy enables a more holistic and effective approach to economic development and city planning, where the creative industries become an integral part of the city's and province's growth plans (as elaborated upon in Section 2.1).

Beyond economic impacts, a Creative Economy Strategy aspires to **shape the city's identity and reputation on a global scale**. The development of a more creative city involves not only nurturing and showcasing local talent but also actively engaging with the global creative community. By fostering an environment that encourages knowledge sharing and innovation, the strategy aims to build a city known for its vibrant cultural scene, cutting-edge technologies, and forward-thinking solutions. In turn, these efforts contribute to the city's reputation as a global hub for creativity, attracting talent, businesses, investment, and partnerships from around the world. Ultimately, the strategy seeks to position the city as a beacon of creativity, innovation, and cultural richness, enhancing its national and global standing and influence. This strategy is also an opportunity to ensure that Albertan stories are told and shared with the world with the best chance of succeeding.

### 1.3 About this Document

This document is structured in four parts that build toward a relevant, achievable and evidence-based strategy for the Creative Economy in Calgary:

- Section 2: **"The Context"** provides a more general understanding of the global and municipal context in which this strategy is being developed and implemented and introduces the thematic pillars that guided the creation of this strategy.
- Section 3: **"The Starting Point: A Situational Analysis"** dives deeper into the specific strengths and barriers of Calgary for each core creative industry, addressing not only how they fit within the broader Creative Economy but also the key needs and opportunities that emerged from the research and consultation.
- Section 4: **"A Vision for Calgary's Creative Economy"** summarizes the strong positioning that will drive Calgary core and ancillary creative industries.
- Section 5: **"How We Get There: Strategic Actions"** presents the recommendations that would support the development and expansion of Calgary's Creative Economy and enable the ambitious vision for a flourishing and sustainable creative future. At this stage (Complete Strategy delivered in December 2023), these recommendations are preliminary and do not discuss implementation considerations.

## 2. The Context

### 2.1 Calgary's Economic Development Environment

Calgary is a dynamic and fast-growing metropolitan city in Southern Alberta. Known widely as an industrial capital, Calgary serves as the metropolitan area with the largest per capita concentration of corporate headquarters in Canada, and the second largest concentration overall.<sup>3</sup> The inclusive and entrepreneurial business environment that Calgary has built is firmly rooted in the city's identity, making it an ideal destination for new and established enterprises. So too are the city's built and natural assets encouraging new workers to consider Calgary as a choice location to live and work.

Though the energy sector has historically dominated Calgary's economic narrative, there is a much more timely story being told about the ways in which **Calgary is embracing a changing social and economic order**, as expressed in [Calgary in the New Economy](#). The city's increasingly diverse industrial profile, headlined by a confluence of burgeoning creative industries like film and television, animation/VFX, video games, esports, and immersive experiences, is already driving new opportunities to redefine Calgary's economic identity and global export potential. *Calgary in the New Economy* recognizes the integration of the creative economy within the city's broader economic narrative, positioning creative industries as an emerging growth cluster alongside areas like life sciences and financial services.

This strategy seeks to build upon the foundation set by [Calgary in the New Economy](#) and consider how the creative economy can support, and be supported by, the five pillars driving change in the local economy: talent, livability, business environment, innovation, and brand.

#### Talent

Calgary is a city that understands that **long-term prosperity relies on sustainable talent development**, attraction, and retention, particularly in specific high-demand skills.<sup>4</sup> Calgary's ability to unlock its diverse economic potential rests on empowering locals and newcomers alike to build their careers in Calgary, supported by learning opportunities for workers of all experience levels.

Skills development is particularly crucial for supporting a sustainable creative economy, especially as it relates to the high demand technical skills required to thrive in film and television production and digital media entertainment. Bow Valley's College's recently introduced diploma program in virtual production and video game development is a strong step toward building capacity for the development of talent locally, as well as attracting new prospective creative workers to the region. The creation of this program and other initiatives like it at PSIs in Calgary align with the [Cultural Plan for Calgary](#), to create "opportunities to develop skills, supports and connections" for students and workers in the creative economy,<sup>5</sup> where technical workers with highly specialized skills are often in short supply.

In a broader sense, the ability for Calgary to attract and retain talent in the creative industries relies on effective implementation of the other pillars of [Calgary in the New Economy](#). Livability, for example, is central in literature around the 'creative class,' whereby creative workers are attracted to urban environments with vibrant culture and nightlife.

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<sup>3</sup> Fact Sheet: Calgary Head Offices – Calgary Economic Development

<sup>4</sup> 'Talent' pillar in [Calgary in the New Economy](#)

<sup>5</sup> Recommendation B 2.5, [Cultural Plan for Calgary](#).

Whether by developing talent locally or attracting established talent from other places, Calgary is seeking to shrink the gap between unmet demand and available supply of talent in the creative industries, and in doing so equip Calgary's creative economy to leverage its cultural and creative products for global market penetration.

### **Livability**

Calgary understands that to create economic opportunity, **a city must build the kind of environment in which people want to live and work.**<sup>6</sup> *Calgary in the New Economy* emphasizes the themes of environmental sustainability, safety, connectivity, affordability, and community vibrancy as necessary conditions for a livable modern city.

The cultural and creative industries not only depend on these livability conditions to be met to support talent attraction and retention, but their work regularly contributes to livability too. Chinook Blast brings upwards of 40,000 people to the city centre every winter; not only does the festival rely on the output of creative workers for installations and programming – which supports employment – but it also connects a whole new audience with cultural and creative experiences to which they might not otherwise be exposed. An installation like Pixel Park, for example, brings video gaming experiences to new audiences, all the while helping local games workers to showcase their field. Likewise, Breakout West 2022 in Calgary supported career development for local music workers, but it also created ample opportunity for Calgarians to go out and enjoy live music. Film festivals, immersive experience exhibits, murals; all these creative outlets contribute to the kind of vibrancy that is conducive to attracting and retaining skilled workers. To the extent that Calgary seeks to invite people to “be part of the energy,” the creative economy is instrumental in bringing that energy.

The [CreativeCITY: Prosperity through the Creative Economy](#) report represents a strong acknowledgement that the creativity spirit fostered by creative industry development permeates Calgary's economic, social, human and environmental prosperity. While the far-reaching economic benefits of creative and cultural industries are documented at length in existing documents such as [Calgary in the New Economy](#) and [Cultural Plan for Calgary](#), it bears mentioning here that these other non-economic ancillary benefits contribute greatly to Calgary's livability.

At a community level, a developed creative economy builds community, contributes to urban revitalization and safety, and increases civic participation and social cohesion. At the individual level, the cultivation of creativity helps to facilitate self-expression and human connection, while higher educational achievements, enhanced mental health and improved general well-being are all positively correlated with vibrant local creative industries. Lastly, creative and cultural products will often educate by engaging critically with social and environmental issues, and creatively-minded workers contribute to energy efficiency and emissions reductions through sustainable design and other creative solutions to environmental problems.

### **Business Environment**

Calgary is seeking to reinforce its identity as **one of the most business-friendly cities in Canada.** By championing effective and efficient policies and resources that support business development, Calgary is pursuing global relevance and connectivity for its business community.<sup>7</sup>

Improvements at YYC Airport and the recent national LGBTQIA2S+ accreditation for the Calgary TELUS Convention Centre contribute to an increasingly welcoming, globally connected city that

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<sup>6</sup> 'Livability' pillar in [Calgary in the New Economy](#)

<sup>7</sup> 'Business Environment' pillar in [Calgary in the New Economy](#)

attracts established companies to do business in Calgary. Meanwhile, accelerator programs like Living Labs and supportive organizations like Platform Calgary and Calgary Economic Development seek to create opportunities for emerging businesses to scale up and reach beyond the city's borders.

Sustainability and global relevance for Calgary's creative economy, too, are driven by the local investments and policy inputs that support the capacity for scale, both for local and internationally established companies. To the extent that major banks and technology companies respond to business incentives and variations in City policy, so too do major players in the creative industries. The [Cultural Plan for Calgary](#) identifies a need to strategically support growth for Calgary's creative industries through the development of business information and investment, strengthened product marketing, events and networking opportunities, as well as by addressing "barriers and opportunities related to City processes and policies."<sup>8</sup>

The City of Calgary's Film Friendly program represents a strong example of supportive creative industry policy in action toward creating a more business friendly environment for film production. The program engages 30-some City departments and agencies to create a simple, easy to navigate, one-stop shop approach for incoming production and investment, capturing everything from location scouting to business permitting to road closures. This kind of efficient, streamlined policy environment has been key to unlocking Calgary potential as centre for a film and television production.

## **Innovation**

[Calgary in the New Economy](#) positions Calgary as an aspiring creative hub; a city **where creativity and innovation are celebrated and fostered** to help companies accelerate their growth into global players.<sup>9</sup> Initiatives like the Opportunity Calgary Investment Fund, the Creative Destruction Lab and the proposed Innovation District are headlining the city's embrace of a more diverse and innovative economy.

It is important to delineate between the concept of 'creativity' in a general business development context and the creative industry development that is the focus of this Creative Economy Strategy. That being said these two notions are complementary, and the [CreativeCITY: Prosperity through the Creative Economy](#) report leans into the well-established linkage between local creative industries development and a healthy innovation ecosystem. The same kind of 'creative class' centric culture that breeds new and interesting intellectual property and product development in the creative industries, also drives innovation in established sectors considered integral to Calgary's economy – from oil and gas, to agriculture, to finance. In addition, championing a robust creative economy over time encourages spillover in terms of the makeup of workers that are engaged in innovation throughout the economy.

The principles of innovation being advanced in Calgary through [Calgary in the New Economy](#) are the same as those that drive success and scale in the creative industries. The document suggests that supportive programming and development opportunities are essential to strengthening the internationally relevant creative economy that Calgary is seeking to build. As creatives sit down to work on the next big thing in film or gaming, the practices established through Calgary's various innovation initiatives can help springboard Calgary's intellectual property into the global market. To the extent that this Creative Economy Strategy seeks to enhance the capacity for Calgary's creative

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<sup>8</sup> Recommendation A 2.2, [Cultural Plan for Calgary](#).

<sup>9</sup> 'Innovation' pillar in [Calgary in the New Economy](#)

industries to compete on a global scale, the spirit of innovation is an essential ingredient toward creating products and intellectual property that capture global relevance.

## Brand

Calgary is building a brand as **“an iconic city” full of energy, ambition, optimism, and opportunity**,<sup>10</sup> and a thriving creative economy can become increasingly central to that brand. As Calgary seeks to change the narrative around what Calgary has to offer, there are few better ways to tell that story than through the cultural and creative products that people enjoy around the world.

The [Cultural Plan for Calgary](#) calls for Calgary to promote itself to the rest of the world as a film, television and digital media centre.<sup>11</sup> To this end, in 2022 Mayor Jyoti Gondek led a delegation to meet with film and television executives in Los Angeles to “reinforce the message that Calgary is the ideal location to host global productions of any size and scale”.<sup>12</sup> Recent successes, such as *Ghostbusters: Afterlife* and HBO’s *The Last Of Us* – one of the largest productions ever undertaken in Canada – are giving the world a glimpse at the calibre of work that Calgary’s creative industries can produce and contributing to the city’s visibility on the global stage.

As it relates to the visitor economy, the [Calgary Destination Strategy](#) considers how Calgary’s flourishing cultural and creative scene can enhance tourism efforts by leveraging “revitalized performing arts infrastructure” and “a defined cultural district.”<sup>13</sup> Calgary’s ambitious slate of recent and forthcoming creative and cultural infrastructure projects, such as the Calgary Film Centre, the National Music Centre, renovations to the BMO Centre and the \$270 million Arts Commons Transformation Project, create iconic spaces that align with Calgary’s emerging brand as a hub for the creative industries and support the goal to become the “ultimate host city”.<sup>14</sup> Meanwhile, Calgary Municipal Land Corporation’s development of the [Culture + Entertainment District](#) has the potential to create a venue for visitors and tourists to gather and share experiences, further reinforcing Calgary’s 2012 designation as Canada’s Cultural Capital. This district model may also help to satisfy a recommendation from the [Culture Plan for Calgary](#): to develop new marketing strategies to promote Calgary’s creative and cultural resources to tourists and residents.<sup>15</sup>

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There is a strong positive correlation between creative economy development and the broader city-building goals expressed in Calgary’s economic development and strategic planning literature: attracting, retaining, and developing talented workers; enhancing livability; supporting business development; inciting innovation; and refining Calgary’s brand.

This Creative Economy Strategy is certainly not the first place in recent years in which Calgary has indicated a resolve to cultivate the local creative and cultural economy toward these expressed aims. Aspects of *Calgary in the New Economy*, *CreativeCITY: Prosperity through the Creative Economy*, *Culture Plan for Calgary*, *Calgary Destination Strategy*, *Living A Creative Life* and others recognize the broad contributions that the city’s creative economy make to the city’s social and economic health. As such,

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<sup>10</sup> ‘Brand’ pillar in [Calgary in the New Economy](#)

<sup>11</sup> Recommendation A 2.1, [Cultural Plan for Calgary](#).

<sup>12</sup> [Calgary in the New Economy](#)

<sup>13</sup> [Calgary Destination Strategy](#)

<sup>14</sup> [Calgary Destination Strategy](#)

<sup>15</sup> Recommendation A 2.4, [Cultural Plan for Calgary](#)

this strategy aligns with these existing strategic priorities and seeks to enhance the work already underway, rather than retreading the same ground.

## 2.2 The Global Creative Industries

The creative industries addressed in the context of this strategy are **characteristically global, with ecosystems (companies, labour forces, markets, talent pipelines, etc.) that connect across borders**. A global portrait of these industries provides insight into the vitality and economic imperatives of its activities, which we can use to infer at a more regional level:

**Table 1: Global revenue and projected growth for the core creative industries (in USD)<sup>16</sup>**

Sector	2023 Global Revenue	Projected Growth
Film	\$92.5 B	CAGR of 0.3% to \$93.7 B by 2028
Television	\$287.8 B	CAGR of 5.2% to \$353.2 B by 2027
Animation and VFX	\$164 B	CAGR of 9.43% to \$284.6 B by 2028
Video games	\$184 B	Anticipated to reach \$205.7 B by 2026
Esports	\$1.47B	CAGR of 21.1% to \$6.8 B by 2030
Immersive media	\$32.1 B	CAGR of 12.6% to \$58.1 B by 2028

As the creative industries operate at the intersection of technology and entertainment, many sectors are subject to the same market conditions and social tendencies. Specifically, sectors in the creative industries are all greatly **affected by emergent technologies, labour practices, investments and venture capital trends, and audience behaviour**.

The rise of new industrial and consumer technologies has presented opportunities for optimizing and improving production practices but has, at times, caused tensions for creative labourers. For example, large language models like ChatGPT and generative AI programs like *Midjourney* are being used as productive tools across all sort of creative activities. Alternatively, game studios like Ubisoft have been developing their own specialized game writing AI tools like *Ghostwriter*<sup>17</sup> and film-specific model are being used to supplement screenwriting, VFX, and previsualization work.<sup>18</sup> The use of AI has, however, figured prominently in the 2023 WGA strike, with the tentative agreement barring the use of AI as source material or credited writing.<sup>19</sup> Ultimately, artificial intelligence and machine learning can help supplement or complement the workflows of creative workers. At the same time, such programs also present new problems related to creative attribution and the value of original creative labour itself.

Another development within – and likely beyond – the creative industries is the use of video game development engines and middleware outside of game development. Game engines provide unified digital environments for all aspects of video game creation (3D modeling, programming, sound, lighting, asset creation and manipulation, etc.). These digital environments are increasingly being

<sup>16</sup> Revenue and projected growth metrics found in market reports by IBIS World, Research and Markets, Mordor Intelligence, Newzoo, Zion Market Research, and Statista Market Insights, respectively.

<sup>17</sup> Polygon, [Can AI really make a video game?](#) March 2023

<sup>18</sup> Variety, [Generative AI in Film and TV: A Special Report](#). December 2023

<sup>19</sup> AP News, [In Hollywood writers' battle against AI, humans win \(for now\)](#). September 2023

used in virtual production practices for the film and television industry, but have also been used by architects, engineers, and industrial designers to unify workflows. For example, game engines like Unity are being used by automakers to streamline the process of designing and engineering cars, and by airports to build “digital twins” and visualize operations in a game-style interface.<sup>20</sup> Convergent and novel uses of technology have begun to demonstrate the **inherent compatibilities that exist between different sectors in the creative economy**, and the possibilities that exist for creative industry tools in other sectors such as transport logistics, manufacturing, and construction.

Finally, augmented reality and virtual reality technology are becoming increasingly commonplace, with consumer-side technology allowing for AR and VR experiences beyond arcades, into a wide range of settings, including (but by no means limited to): museums, galleries, cultural centers, sports arenas, and hotels. The use of AR and VR in new contexts, well beyond their traditional niches in games and immersive narrative experiences, signals the impacts that a creative economy, marked by **creative uses of technology, can reach into other, more traditional sectors**, presenting new avenues for inter-sectoral collaboration and growth.

As these technological advancements are changing the nature of creative work, so too is the broader economic climate in which they operate. Currently, that environment is characterized by volatility, higher costs of living, above average inflation, and investor risk-aversion, which (in combination) have had a significant impact on creative labour, production practices, and corporate operations. For example, buyers of (and investors in) creative properties (e.g., games publishers, linear media platforms) have become increasingly hesitant to invest in IP -- requiring more developed pitches alongside stronger connections to existing audiences.

Meanwhile, the creative industries are currently adjusting their operations in response to markets recovering from the pandemic: while film and television production has returned from work stoppages and immersive technology developers have found new avenues for growth, major video game companies have had to reduce their workforces due to their rapid but ultimately unsustainable expansion following the onset of the pandemic. News about the creative industries is dominated by headlines reporting waves of layoffs, such as those announced by game publishers and tech giants like Microsoft,<sup>21</sup> game development studios owned by Embracer,<sup>22</sup> and film animation studios such as DreamWorks.<sup>23</sup> Companies are closing down of specific divisions and studios, such as Lucasfilm’s shuttering of its Singapore-based VFX and animation studio,<sup>24</sup> are removing content from their platforms for tax purposes, such as HBO Max’s (now Max) removal of over 85 shows from its streaming service.<sup>25</sup> What is currently happening across the creative industries can be characterized as **course corrections and attempts at stabilization in response to a market in flux**.

Given that creative industries are subject to rapid technological development and volatile market forces, many localized strategies focus on more administrable components of these industries: supporting the creation and export of valuable **intellectual property**, attracting long-term investment, and building infrastructure through **placemaking and identity building**, and sustaining

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<sup>20</sup> *XRToday*, [Unity, Vancouver Airport Authority Partner to Leverage Digital Twins](#), June 2023

<sup>21</sup> *CBC News*, [Microsoft laying off 10,000 workers – about 5% of all staff](#), January 2023

<sup>22</sup> *The Verge*, [More layoffs at another Embracer Group studio](#), December 2023

<sup>23</sup> *Variety*, [DreamWorks Animation Laying Off 70 Employees](#), October 2023

<sup>24</sup> *Deadline*, [Lucasfilm Closing Singapore VFX and Animation Studio After Two Decades](#), August 2023

<sup>25</sup> *IndieWire*, [87 Titles Unceremoniously Removed from HBO Max](#), May 2023



strong and well-supplied **workforces and talent**. Regardless of the “where”, investors, policymakers, and regional stakeholders can mitigate the influence of technological change and fluctuating markets by ensuring that their ecosystems can systematically support the creation and sale of valuable commodities (video games, movies and television shows, apps, animation, and other licensable material), while ensuring that the region is economically and socially appealing to investors, entrepreneurs, and skilled workers. As such, the more successful creative economies across the world are those that have been able to create robust ecosystems tailored to the unique offerings and strengths of their respective jurisdictions.

### **Key trends affecting the trajectory of the creative industries:**

- **Convergence and cross-sector adoption of new technologies** – The use of creative technology is bolstering other economic activities and sectors.
- **Advent of generative AI** – AI and LLMs are providing new workflow opportunities but are also causing issues for creative labor related to originality and attribution.
- **Use of game engines** – Game development environments are increasingly being adapted and adopted for use outside of games, including for virtual production, design work, and industry applications.
- **Consumer-side AR/VR** – Availability of AR/VR technology is making immersive media less niche and increasingly accessible to the general public in all sorts of social and cultural contexts.
- **Risk-averse investment climate** – The volatility of global and local markets following the pandemic are inciting more cautious investment decisions.
- **Inflation and increased cost of living** – The higher cost of everyday goods is impacting affordability for both creative workers and for companies.
- **Market course correction** – The rapid expansion of creative industries during pandemic is now decelerating, requiring sudden reductions resulting in layoffs, closures, and tax write-offs.

## **2.3 Pillars of a Successful Creative Economy**

The process (research, consultation, and strategy design) has been approached through three strategic lenses. Indeed, the pillars described below have been observed to be key drivers of success in creative industries in jurisdictions across the world. Moreover, they align with the strategic priorities established at the municipal level as discussed in Section 2.1. This broad framework should allow the replication of successes examined around the world while providing room for flexibility and finetuning to the specific features of Calgary’s Creative Economy.

### **Talent attraction and retention**

**Alignment with *New Economy* drivers:** Business Environment, Talent, Brand

Talent is at the very core of the Creative Economy. Throughout the production and distribution pipeline, human resources are the cornerstone of success, from artists to developers, from project managers to marketing specialists. A successful Creative Economy Strategy will plan for the training, attraction, and retention of these critical human resources.

A successful Creative Economy Strategy hinges on the regular **mapping of skills** and the **identification of transferable competencies** across various creative sectors. By doing so, organizations can foster a more agile and adaptive workforce, enabling professionals to navigate seamlessly between sectors (the core creative industries, the ancillary creative industries and eventually the other beneficiary industries), ultimately enhancing innovation and promoting a collaborative, cross-disciplinary environment.

The cornerstone of an effective strategy lies in a **continuous and dynamic assessment of needs** within the Creative Economy. Agencies and post-secondary institutions play a pivotal role in this process, hence the importance of creating platforms for open dialogue between industry players and these . These spaces facilitate discussions on the evolving demands for talent, identify skill gaps, and devise strategies to bridge them. Collaboration between academia and industry ensures that educational programs remain relevant and responsive to the ever-changing needs of the creative workforce, fostering a symbiotic relationship that benefits all parties.

In a situation of shortage of skilled talent, a successful strategy must be underpinned by policies that not only ensure the emergence of a new generation of local talent, but also **actively support the movement and integration of talent**. This involves for instance streamlining immigration processes to attract international – and Canadian – expertise and providing incentives for talent to relocate. Creating a welcoming environment for creative professionals, regardless of their geographic origin, not only enriches the talent pool but also enhances the global competitiveness of a creative economy.

Beyond specific immigration policies, the overall **labour policy framework should be competitive** to alleviate the substantive labour costs that come with developing and delivering creative products and services. Incentives such as tax credits have proven to play a key role in the attractiveness and competitiveness of a jurisdiction, especially for film, television, animation, VFX and video games. In the Canadian context where leading provinces compete for domestic talent, designing such incentives has become an important consideration for employers and investors.

Furthermore, and in line with the City's objectives, this pillar will need to be examined through the lens of intersectionality. A forward-thinking strategy acknowledges the intrinsic value of **diversity, equity, and inclusion**. Talent is not a one-size-fits-all concept, and the strategy should recognize and celebrate the benefits of a diverse workforce. By actively promoting diversity in recruitment, fostering an inclusive culture, and addressing equity concerns, the creative industries can harness the power of varied perspectives, in the workplace as much as in the content. A DEI-focused strategy ensures that the benefits of a thriving Creative Economy are accessible to individuals from all backgrounds, contributing to a more vibrant, innovative, and socially responsible industry.

## **Investment and entrepreneurship**

**Alignment with *New Economy drivers*:** Innovation, Business Environment, Brand

First, a successful Creative Economy prioritizes growth and sustainability by ensuring a business-friendly environment conducive to partnerships and innovation.

**Technology and innovation** have become strategic advantages in a substantially digital creative landscape. Accessing the latest technology, or ideally developing original proprietary tools and solutions requires capital and/or a network that spans across industry and academia. A supportive creative ecosystem stimulates research and development, facilitates access to strategic information and thought leadership, and invites entrepreneurs to test and adopt new technology. Innovation also happens in the more creative sphere, but creative entrepreneurs need a space to experiment with new artistic concepts and ways to approach the production and distribution pipeline.

The key to unlocking entrepreneurship and investment of a creative hub is its capacity to generate **intellectual property** (IP). While a fee-for-service approach is a totally viable and widespread business model in creative industries, the upside of an ecosystem predominantly comprised of service providers is limited if the objective is the robust economic growth of the sector. Service companies should still be supported in their efforts to access new markets and develop partnerships, but special attention should be paid to developing IP. IP in the Creative Economy can be creative (i.e., a feature film, a TV show, a video game licence, etc.) or technical (e.g., a piece of software or hardware, a development tool or platform, etc.). The value that can be generated from the exploitation of IP is considerable and contributes to the sustainability of the Creative Economy. However, IP creation and monetization is a resource- and time-consuming process. A successful creative ecosystem will alleviate the risks associated with adopting an IP strategy, while identifying the most promising candidates and facilitating matchmaking with partners and investors.

In fact, **access to markets** is also an important focus of a strategy that benefits the core and ancillary creative industries. In one hand, this component translates into more partnerships and collaborations between local companies, organizations, and institutions. In the other hand, this means more opportunities for the most competitive projects and companies to meet with new clients, suppliers, partners and investors, locally and internationally.

With the objective of inspiring a new generation of entrepreneurs, thriving creative ecosystems have protocols to identify and promote **pathways to success**. The aim is to understand how successful businesses started and the key factors that participated in their success to eventually replicate these ventures and better align the support programs with industry needs. In addition, marketing efforts and a comprehensive communications plan around these success and initiatives will ensure that the strategy continues to yield the best results.

Finally, the last dimension to consider under investment and entrepreneurship is a rich and connected **support network**. A successful strategy should aim to reinforce the connections between support organizations (funders, policy makers, etc.), the industry (through direct outreach or via industry associations' advocacy) and the creative entrepreneurship ecosystem, from post-secondary institutions to incubators/accelerators, to artists centres and freelance communities.

## **Access to infrastructure**

**Alignment with *New Economy* drivers:** Business Environment, Livability

Infrastructure primarily includes spaces and places where creative outputs are developed and/or consumed but this definition can extend to equipment, material, and ancillary amenities such as high-speed internet, and access to public transportation.

Some segments of the creative industries rely on **specific and technology-heavy infrastructure**, as discussed in the deep-dive analysis of Section 3. Strategic assets include for instance film/TV soundstages, LED volumes (for virtual production) and displays (for immersive entertainment), motion-capture facilities (for video games, VFX and animation scanning) and high-tech arenas (for esports competition).

More general infrastructure can also be critical to the development of a creative economy. Locations like co-working spaces, accelerators/incubators, research labs and testing facilities stimulate **collaboration, innovation, and knowledge sharing**. They are also great opportunities to educate students, audiences, clients, and policy makers about the potential of creative technology. Visual and performing art centres, theatres, arcades, and multisensorial exhibition spaces allow the dissemination/distribution of content.

A successful strategy will take stock of existing assets, identify gaps, and **invest in specific and non-specific infrastructure and support their continued updating** given the fact that staying on the technological leading edge is a competitive advantage in the creative industries. Hybrid and adaptable spaces (between creation and exhibition) can be great platforms to stimulate activity and generate interest in the local creative ecosystem.

In a broader context of a housing crisis, a responsible strategy will adapt to the local supply to efficiently build, update, and repurpose spaces and places as needed. Moreover, a creative economy should **integrate into the municipal city planning agenda** to build a consistent, organic, and efficient ecosystem that consciously concentrates public-facing creative activities in an area of the city. Similarly, **creative hubs or districts** where practice meets innovation, presentation meets education, are emerging as constructive pieces of successful placemaking frameworks and critical places for community building.

A successful infrastructure strategy will also consider the following elements:

- **Affordability:** subsidized and cost-effective rent.
- **Sustainability:** low impact development and energy efficient buildings and equipment.
- **Accessibility:** welcoming and safe spaces.

Beyond physical infrastructure, the strategy should question the meaning of **digital infrastructure** for the creative economy. While the interpretation of digital infrastructure is still discussed, the strategy should encourage carrying out these key principles - affordability, sustainability, accessibility – as well as other – transparency, interoperability, respect of privacy – into the digital realm. This approach will ensure that the strategy is future-proof as digital platforms become more prominent in the creative discourse and policies and standards are designed.

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These three pillars are interdependent and mutually reinforcing. Calgary businesses will benefit from cutting edge infrastructure and an environment conducive to innovation and experimentation. Growth plans will be made possible by the availability of talent and skills that match the fluctuating needs of the industry. Talent will be attracted (and retained) by the creative and inclusive ecosystem. Investment will flow to support the development of this ecosystem and high-profile projects (some of which will be Alberta-owned IP).

### 3. The Starting Point: A Situational Analysis

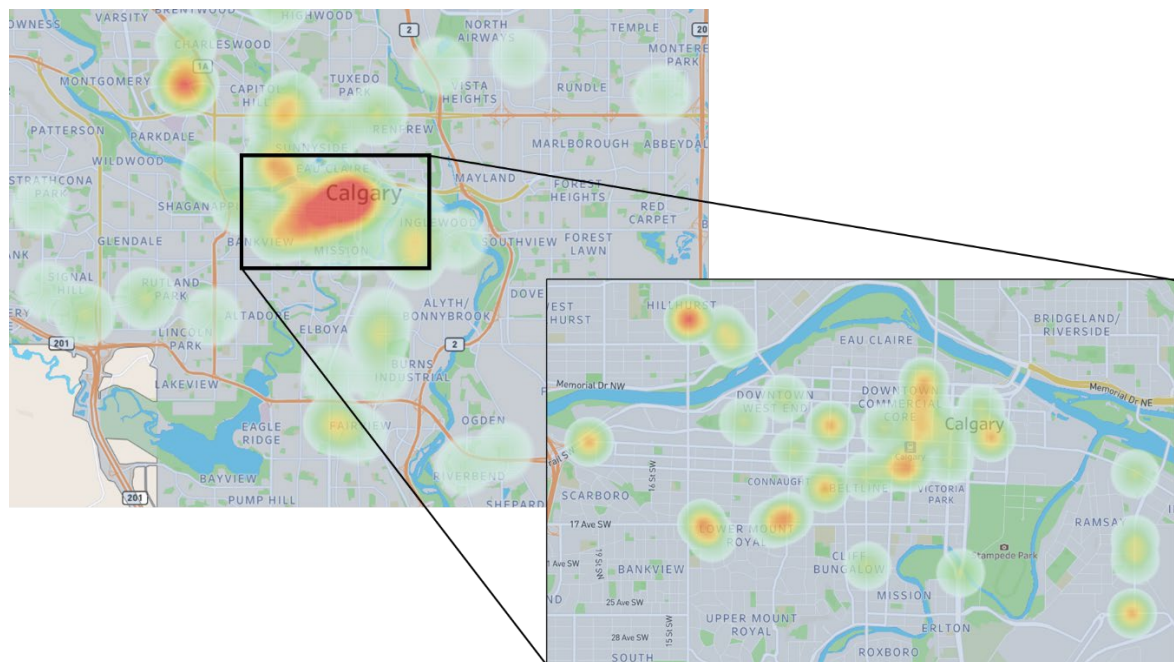
To devise an effective strategy for Calgary's creative economy, it is important to start with an analysis of the state of those industries at its core. To begin, the following table presents a summary of the number of organizations identified in each industry.

Core Creative Industry	Number of assets*
eSports	10
Animation and VFX	19
Linear Media	16
Immersive Media	25
Games	34
Support Organizations	14

\* In this context of this mapping, "assets" vary by core creative industries. For games, animation/VFX, and immersive media, the assets are operating companies. For Linear Media, they include support companies (e.g., production services) and infrastructure (e.g., soundstages). For eSports, they include both leagues and organizations engaged in eSports activities (e.g., colleges).

While there are core creative organizations spread across the wider Calgary area, most assets are located in Calgary's downtown core.

**Figure 2: Preliminary heatmap of core creative assets**



## 3.1 Linear Media (Film and TV)

### Definition

The film and TV industry typically encompasses a range of activities related to concept creation, script writing, production, post-production, distribution and exhibition of film and TV content. In Canada, the Canadian Media Producers Association (CMPA) categorizes the film and television production sector in Canada into four key segments.<sup>26</sup>

**Table 2: Linear media segmentation**

Type of Production	Description
Canadian Television Production	Television programs made largely by independent production companies, but also includes television programs made by production companies affiliated with Canadian broadcasters. All these television programs are certified as Canadian content by the Canadian Audio-Visual Certification Office (CAVCO) of the Department of Canadian Heritage, or the Canadian Radio-television and Telecommunications Commission (CRTC).
Canadian theatrical feature film production	Feature-length films made by independent production companies that were certified as Canadian content by CAVCO.
Foreign location and service (FLS) production	This segment largely consists of feature films and television programs filmed in Canada by foreign producers or by Canadian service producers. For the majority of FLS projects, the copyright is held by non-Canadian producers; however, for approximately 5% to 10% of projects, the copyright is held by Canadians.
Broadcaster in-house production	Television programs made by Canadian television broadcasters in their own facilities as opposed to being made by an external production company that is either independent or affiliated with the broadcaster. Broadcaster in-house production primarily comprises news, sports, and current affairs programs.

It is worth noting that Calgary's film and TV production consists of a wide range of productions, from high budget drama series to independent documentaries. Companies that produce unscripted dramas, documentaries, and commercials are part of a dynamic and rapidly growing sector.

### Connections to the Creative Economy

The film and TV industry plays a key role in the creative economy by contributing to other sectors that provide goods and services to the production of content. Film and TV productions not only boost direct employment in adjacent industries such as music and arts, but also support tourism, hospitality, and technology. The talent in the film and TV industry also shares similar skillsets with those in the video game and immersive media industries, particularly in the post-production and virtual production sectors.

### Situation

The scan of Calgary's assets identified 16 production companies and other production-related assets. The result shows that most production companies in Calgary have been established for over a decade. Although most of these companies provide service production work, there are a few that

<sup>26</sup> Profile 2020, CMPA, <https://cmpa.ca/wp-content/uploads/2023/09/Profile-2022-EN.pdf>

actively and consistently invest in their own IP development, indicating an emerging trend in IP investment. However, those companies that can afford to do so usually share a few common traits:

- Established trust and industry connections with foreign producers, enabling them to secure stable streams of revenue.
- Crew capacity to scale up production if volume increases.
- A stable team of talent devoted to IP development.

The Alberta film and TV industry has seen great strides in recent years, and Calgary's film and TV industry contributes 80% of Alberta's film, TV and commercial production spend.<sup>27</sup> As the fourth-largest filming jurisdiction in Canada, Calgary has attracted high profile productions such as *The Last of Us* and *the Fraggles*.<sup>28</sup> The economic impact of film and television production in the Calgary area soared to a record \$522 million in 2021.<sup>29</sup> However, the majority of the production volume comes from service production. Calgary still grapples with a scarcity of domestically owned and produced IP. The reliance on service production makes the industry susceptible to disruptions, such as the recent strike.

The production growth of the film and TV industry in Calgary also attributed to the recent provincial film and TV production tax credit enhancement. In 2021, Alberta government removed the cap of a maximum \$10 million tax-credit claim. As a result of the momentum, film and TV production spending surged to a record \$522 million in 2021 and the value of municipal building permits reached a 10-year high.<sup>30</sup>

### **Overall Competitiveness**

While Alberta's tax credit has attracted medium and large-scale productions, consultations suggest the jurisdiction could enhance certain aspects of its production pipeline, particularly in post-production and audio production services. The post-production is a \$20-million-a-year industry in Alberta, but it still ranks well below similar industries in Ontario, British Columbia, and Quebec.<sup>31</sup> Additionally, international jurisdictions, particularly Los Angeles, present competition due to their skilled workforce and cost-effective services.

### **Key opportunities and barriers**

#### **Investment and entrepreneurship**

##### **Barriers**

- While Calgary has seen growth in attracting productions, most of the economic impact comes from below-the-line production work. Service production work does not allow local talent to participate in IP development. As a result, little downstream revenues are kept in

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<sup>27</sup> Alberta Film

<sup>28</sup> Canadian Media Producers Association

<sup>29</sup> CED, [Calgary's Film and TV Industry Best in Show](#), April 2022

<sup>30</sup> CED, [Calgary in the New Economy: Progress Report](#), May 2022

<sup>31</sup> *Global News*, [Alberta post-production film and television industry gets \\$1.25-million boost](#), Sept 2018

the region. Further, over reliance on service production could result in work supply interruption and inconsistency in economic growth.

- The film and TV sector in Calgary is at the very beginning stage of IP development. Consultations found that Calgary lacks support on developing original content. The need for support comes from companies that produce scripted content as well as unscripted content. Local producers face significant entry barriers before taking advantage of the provincial tax credit. Developing original IP is not only expensive but also resource demanding. It requires knowledge of writing sales materials as well as the industry connection to get into a meeting.
- For producers who can get into a pitch meeting, they don't get to participate in splitting downstream revenue because streamers tend to buy off the story right.
- However, interviewees also noted a paradigm shift that may merge in the next few years. As streamers face a tighter fiscal environment, there have been cases where producers can bring different ways of financing and partners to the table, which allow them to keep some downstream rights. Furthermore, mandates and policies by CRTC could also contribute to shaping a new broadcast regulation by bringing streamers to participate in Canadian media system in a meaningful way.
- Compared to other major film and TV hubs, Alberta doesn't offer regional bonuses for producers to go outside the center. As a result, producers limit the shooting window outside of the center region.

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#### Opportunities

- CED can collect all location photos together and allow more days of scouting days. Putting Alberta on the map will lead to more wealth spread across the jurisdiction.
- Alberta needs to keep the tax credit stable and reliable.
- Initiatives around enabling domestic producers to develop IP are key to ensure sustainable economic growth. Specific aspects of IP development include script writing, pitch coaching, mentorship and industry connections.
- Unscripted production needs to be recognized by government's supporting system, which represents a portion of independent domestic production.

#### Access to infrastructure

#### Barriers

- Calgary's incentives for post-production are not competitive when compared to other jurisdictions such as Ontario.
- Calgary's post-production services are still in its infancy. The sector needs more post-production facilities, audio and coloring studios, etc., Interviews shown that the film and TV sector in Calgary faces the phenomenon of "shoot and scoot", in which producers take post-production elsewhere due to the skilled labour and cost-effective pipelines. As such, the substantial uptake on the production revenue doesn't trickle down into post-production.

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#### Opportunities



- There is an opportunity to incentivize the productions to do pre-production and post-production in Calgary. Calgary can capture a portion of the pre-production and post-production by integrating across different industry sectors such as VFX and video games. Those pre-production and post-production will in turn generate more full-time jobs and brick and mortar tax-paying companies in permanent locations.
- Cloud-based solutions and virtual production represent an opportunity to integrate small teams as part of a larger team to take on bigger projects. By using the same software platform, smaller shops can create a hub and spoke model.
- There is great awareness for the need for greener production practices among streamers. Strengthening the green production aspect of the infrastructure will enhance Calgary's attractiveness to producers.

### Talent attraction and retention

#### Barriers

- Calgary faces challenges in the growing production sector due to a shortage of human resources. The volume of production work in Calgary is insufficient to retain talent and support sustainable growth. While attracting foreign service production greatly boosts the economy, the jobs created are temporary which force skilled labors to leave elsewhere to seek work.
- Calgary lacks local producers that make it an innovative and reputable hub of original content.
- In Calgary's film and TV industry, there exists a significant gap between trained workers and skilled workers, primarily due to differences in industry experience. Calgary's talent lacks skilled workers, such as department heads, who possess extensive industry experience.
- There are limitations in bringing students on set due to union policy and rules. Students can only be brought into sub-union production, where the labor positions they can take are restricted. When a production volume goes higher and is unionized, bringing students into production becomes an increasing cost for the producer.
- The greatest gap in advancing graduate students from PSI is in mentorship. Interviews with production companies revealed that in addition to training programs offered by PSIs and unions, professional development is also key to making talent truly skilled.

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#### Opportunities

- PSIs are best positioned to take a leadership role in becoming a center of excellence for preparing graduates as contributing members in the industry and developing proprietary tools and software.
- Many skills required in the film and TV industry are also prevalent in other sectors, such as theatre, video games, and other creative arts. Therefore, a training ecosystem that spans these sectors could provide talent with more opportunities to find their ideal career path.
- For example, the not-for-profit theatre sector can be further leveraged as a training ground for workers to gain technical skills that will be transferable to film and television production. Similarly, successful production companies in Calgary have expressed a willingness to collaborate with CED to train and mentor emerging talent.

### 3.2 Animation and VFX

#### Definition

Animation and Visual Effects (VFX) are two industries generally grouped together for the overlapping skillset they employ. Despite the numerous similarities, there are critical differences that should be noted to understand the specific needs of each industry. However, it is very common for a company to offer services in both industries, as well as more general post-production services (dailies lab, colorimetry, post-sync, etc.)

In the Summer 2023, CED and the Edmonton Screen Industries Office released *Key Frames: A Growth Strategy for Animation and VFX in Alberta*, prepared by Nordicity. Subsection 3.2 of this report presents results and learning outcomes from this provincial strategy, while adding more context for the City of Calgary when available. To access the full report click here: [Key Frames](#).

	Animation	VFX
<b>Definition</b>	Computer-generated or physical imagery manipulated to appear as a moving image	Computer-generated imagery applied to live-action footage
<b>Business models</b>	Fee-for-service contracts	
	Original content production Proprietary technology (software, hardware)	Proprietary technology (software, hardware) Proprietary asset libraries
<b>Creative outcomes</b>	Feature films, TV series (including streaming platforms), commercials, eLearning platforms, immersive exhibition, video games, etc.	

Animation can take many forms, from hand-drawn animation to computer-generated animation, to stop-motion animation. Each animation style will bring nuances to the production and distribution pipeline (e.g., skills involved).

Technology and innovation have had – and continue to have – a significant impact on Animation and VFX. The use of game engine technology and their applications in virtual production, or the strategic use of artificial intelligence to perform quick fixes are only two recent examples of a fast-paced technological environment.

#### Connections to the Creative Economy

Animation and VFX have organically emerged as spin-off branches of the linear media industry (i.e., film and TV). Often categorized as a genre of its own, Animation has seen the emergence of critically acclaimed production from powerhouses Disney/Pixar, Dreamworks, Sony Pictures Animation, Illumination, LAIKA Studios or Canadian companies WildBrain, Guru Studio and Spin Master. The rapid progress in computer power, as well as the desire from the film industry to offer more ambitious spectacles, propelled VFX to become a cornerstone of Hollywood. As reported by Vulture, only five of the highest-grossing movies required VFX in 1975 while an estimated 90 percent of all films released in 2022 presented VFX shots.<sup>32</sup>

<sup>32</sup> Vulture, [Inside the VFX Union Brewing in Hollywood](#), January 2023

Animation and VFX have natural ties with the video games industry, now more than ever. The parallels are manifold, from some software used (Unreal Engine) to skills employed. On the content side, video games have been adapted in animated series and films (e.g., *Cyberpunk: Edgerunners*, *Arcane/League of Legends*, *Super Mario Bros.*, *Pokémon* or the Canadian game *Cuphead*) and conversely, video games have been produced based on animated films (more recently *Avatar: Frontiers of Pandora* published by Ubisoft).

Animation and VFX are at the crossroads of the other creative industries as they converge. In the last years, the increased interest in immersive entertainment also provided new opportunities for Animation and VFX: wall projections, virtual and augmented environments, arcades and simulations are examples of experiences that involve animation and/or VFX.

## **Situation**

A scan of animation and VFX companies in Calgary reveals a small yet established sector. In total, 19 companies were identified. Nine of these companies have operated for over 10 years, with four out of the nine have operated for over 20 years. While some organizations specifically focus on either VFX or animation, almost half engage in both VFX and animation. 53% of the companies are small-scale (6-10 employees), while 37% are classified as micro (under 5 employees), and 11% fall into the medium category (11-25 employees).

*Key Frames* provides an overview of the state of Animation and VFX in Alberta. As 60% of the industry is based in Calgary, the learnings of this provincial study can shine a light on the Animation and VFX landscape in the City.

Highlights from the Animation and VFX survey conducted in the Summer 2022, include the following:

- The average company size in Alberta is 4.3 permanent employees and 3.6 temporary and freelance workers, showing a heavy reliance on contract workers.
- The main client industries are Film and TV (for 93% of respondents), advertising and marketing (79%), education (57%) and government (57%). Note that only 21% of respondents indicated working with the video games industry. Interviews conducted in 2023 indicate that there is an appetite for more collaboration and connection with the other creative industries, in particular the video games industry.
- 85% of the industry revenue in Alberta comes from professional fees and only 4% from the exploitation of creative and technological intellectual properties.
- 71% of the industry expenditure is incurred on labour: talent remains the core “raw material” of the creative industries.
- Nordicity estimated that the VFX and Animation industry in Alberta supported a total of 110 full-time equivalents in 2021, as well as a total \$10 million in GDP.

The report underlines the importance of a solid support ecosystem. Post-secondary institutions are consulting the industry to revise or develop more industry-relevant programs. That being said, industry players indicated that graduates are not quite market-ready and need to go through further internal training when hired, a time-consuming and expensive process. The industry can rely on non-profit associations such as the Alberta Post-Production Association (APPA) or Quickdraw Animation society to promote and advocate for the industry. Government agencies can play a critical role in building the attractiveness of a jurisdiction. While the Post-Production Grant is welcome by the industry, its limited scope and competitiveness, in comparison to what is offered by other Canadian hubs, was often noted by consulted parties.

Over the past 12 months, companies that focus on international post-production/VFX services have suffered from the writers’ and actor’s strikes in the USA. Companies that work primarily with local or

Canadian clients, as well as companies that develop original content or work outside the entertainment sphere were less impacted by the production hiatus, although the industry indicated a certain winding down of production across all client verticals, as well as the limited opportunities on the local market for Animation and VFX.

There is uncertainty around the medium- and long-term impacts of the strike on the entertainment VFX and Animation. With more resources allocated to talent (i.e., writers and actors in this case), some observers anticipate a decrease of VFX budgets. On the other hand, tighter budget may indicate that production companies will look for more cost-efficient solutions such as virtual production, therefore offering an opportunity for companies that provide these services or develop assets used in this context.

### **Overall competitiveness**

Alberta accounts for less than 0.1% of the Canadian revenue from visual effects and Animation services for audiovisual works (\$1.2 billion in 2019). In this industry, Calgary has to compete with more established Canadian hubs in Vancouver, Toronto and Montreal which capture a substantive share of the activity. These hubs benefit from the combination of attractive incentives, high-profile specialized post-secondary institutions, a vibrant creative and entrepreneurship community and anchor companies that project a brand and reputation for these cities.

Despite this outlook (43% of companies estimated that competition from other jurisdictions is a significant barrier to growth) and known roadblocks, Animation and VFX companies in Alberta, and more specifically Calgary, are feeling confident in the future. Some companies intend to expand their workforce to match the anticipated level of activity but the growth plan for the average company in Calgary is to sustain healthy growth while working on exciting projects. In this context, there is a path for Calgary to draw on its passionate Animation/VFX industry and its film and TV ecosystem to build a fresh hub, an alternative to the crowded competitor jurisdictions while learning from their history.

*Key Frames* outlined a strong vision for Alberta that is still relevant to Calgary's Animation and VFX industry:

*The growth strategy will further integrate Animation and VFX companies into the broader provincial creative and technological ecosystem to position Alberta as the fourth audiovisual production centre in Canada.*

This realistic ambition for the Animation and VFX industry aims to create neural pathways with the other creative industries, facilitate industry collaboration and enable the development of creative IP, therefore echoing the overarching efforts of the present Creative Economy Strategy. As such the competitiveness of Calgary as an Animation and VFX hub will be unlocked by its capacity to build a cohesive and crosspollinating Creative Economy.

### **Key opportunities and barriers**

Recent consultation supplemented the situational analysis provided in *Key Frames*, a necessary update in the context of inflation, creative industries strikes and technological changes.

#### **Investment and entrepreneurship**

##### **Barriers**

- Local incentives (PPG) are not competitive enough to attract foreign productions and support local productions (Alberta production end up doing post-production outside the province).
- The local and Canadian market is limited for entertainment and non-entertainment verticals.

- Original Animation IP is restrained by financing opportunities: companies do not have the resources to develop ideas and struggle to find broadcasting/streaming partners. 78% of respondents to the *Key Frames* survey indicated that investment and financial support are the major barrier preventing them from developing an IP strategy.
- Similarly, researching and developing technical IP requires massive investment that Calgary-based companies have not been able to secure.
- The entrepreneurship mindset that remains to be built in an industry that primarily relies on fee-for-service work.
- Poor understanding of the post-production pipeline, VFX and Animation from decision-makers and investors, which require constant education.

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#### Opportunities

- Original creative content can be fueled by Alberta stories waiting to be told, including Indigenous stories.
- The innovation ecosystem provides a foundation to develop new solutions for the industry, including artificial intelligence and machine learning.
- The robust film and TV pipeline can act as a funnel, thus creating a one-stop shop for production and post-production.
- Aligned willingness of the industry and government.
- Some parts of the creative industries are still nascent in Calgary, providing an opportunity to learn from other successful jurisdictions while giving room to experiment with new approaches.

### Access to infrastructure

#### Barriers

- On the VFX side, Calgary would need infrastructure investment to offer a state-of-the-art virtual production space and level the playing field with other jurisdictions.
- While there is an appetite to further connect with other facets of the Creative Economy (e.g., video games industry), there is no hub nor group to effectively facilitate these relationships.
- Similarly, foreign producers visiting the City struggle to identify key local partners that could accompany them throughout the production value chain. It can even be hard for local companies to identify local partners.

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#### Opportunities

- Beyond virtual production, Calgary Animation and VFX companies seem to have the necessary infrastructure: companies that focus on commercials or corporate uses of Animation/VFX do not require overly complex infrastructure.
- The network and connectivity meet the needs of Calgary-based companies.

### Talent attraction and retention

### Barriers

- The Animation and VFX industry is no exception and face talent shortage, notably at the senior level.
- The skill gap is particularly strong on the creative side, less so on the technical front (but. The industry is struggling to find and secure CG artists, animators, composers, riggers, software developers, graphic designers, understanding of storytelling techniques, proficiency with After Effects and Unreal Engine, customer service, business development, etc.
- There is no incentive to help relocate talent from competitor jurisdictions.
- Companies have limited resources and bandwidth to take on internships and internal training.



### Opportunities

- Local post-secondary institutions are developing new programs to meet the industry demand and are consulting with companies to design relevant courses.
- The province offers a flexible talent pool of hobbyists and freelancers.
- The City is committed to develop the Calgary brand around creativity, and to improve livability, therefore boosting its attractiveness to creative talent.
- Positioning Calgary as a one-stop-shop for production and post-production and building more bridges with the other creative industries establishes the vibrancy of the City and further ensuring the City is a magnet for talent.

### 3.3 Game Development

#### Definition

The video game industry covers a wide range of professions and activities, such as developing, creating, publishing, and distributing video games. Video games can be played on dedicated devices, such as game consoles, or be played on personal computers and mobile phones. The production of video games scales from independent development, with small teams producing “indie” titles with limited resources, to “AAA” production, which mobilizes hundreds of employees across multinational studios to create expansive titles such as *Grand Theft Auto* and *Call of Duty*. The video game industry in Canada is largely composed of various small indie studios as well as larger studios operated as divisions of multinational game developers and publishers.

There is an important difference between games produced as a product (GaaP) and games offered as a service (GaaS): Games-as-a-product tend to be characterized as games that offer more contained, story-driven, single-player experiences that are sold to consumers as a one-time product purchase, while games-as-a-service used to describe always-online or “live” games driven by multiplayer experiences and core gameplay loops and are sustained by “free-to-play” models with in-game purchases. GaaS models are becoming increasingly prominent across all genres and markets, underlining the success of titles like *League of Legends*, *Candy Crush*, and *Rocket League*. Moreover, some games like *Fortnite* and *Minecraft* are seeing success expanding their IP beyond games and integrating other popular licenses in their games.

Video Games	
<b>Definition</b>	Interactive software developed for entertainment, played by users via devices such as game consoles, smartphones, and computers.
<b>Business models</b>	<b>Game development (original properties):</b> Studios conceptualize and develop new/original titles; value comes from games sales and resulting intellectual property (wherein IP can be further commodified)
	<b>Game development (fee-for-service):</b> IP holders can commission studios to produce games based on licenses they hold; may also provide on-demand or as-needed development services to supplement other game developers
	<b>Game publishing:</b> Finance game development projects and ensuring profitability of a game via publishing, distribution, marketing, licensing, and localization; tend to be both IP and platform holders
<b>Creative outcomes</b>	Video games (as products, or as online services); middleware tools such as game engines and backend network programs; licensable content (IP).

#### Connections to the Creative Economy

Video game technologies developed for games are being applied to other creative sectors such as film and TV production, playing a critical role for them. As the forefront of the creative industries, the video game companies are also figuring out how to transfer tools and programming across

industries.<sup>33</sup> For example, the use of game engines like Unreal Engine are being used for virtual production processes, creating immersive shooting environments beyond green screens. Calgary is also seeing video game companies partnering with film studios to develop games for movie franchises. In fact, the TV production of HBO's *The Last of Us*, which filmed around Alberta, is based on a video game.

Major video game franchises such as *Overwatch*, *Rocket League*, and *Call of Duty* are also the basis for competitive video gaming. Esports, which organizes and sanctions competitive video gaming around leagues, tournaments, and professional sports-style events, presents a more tangible extension of video games as a medium.

Video games also privilege music creation, with teams of composers and musicians creating original soundtracks for games, and visual arts, with character, environment, and concept artists providing original visuals.

### **Situation**

Desk research identified 34 video game companies in Calgary. Most of these companies are content producing studios. More than half of these companies are micro-sized, with fewer than five (and often just one) employees. Almost all of the remainder employ between 6 and 50 people -- though most are at the bottom end of that range. The largest employer related to Calgary's games industry is Unity (formerly Finger Foods), which does not directly create games IP. That said, it can serve as a magnet for some mid-career and senior talent who can then be hired by Calgary-based games studios.

In terms of company maturity, about half of the scanned companies are established over 10 years, suggesting that they have not successfully –or do not want to – scale their studios. As such, there are currently not many employers in Calgary's games industry – thereby limiting the degree to which the industry can absorb junior talent (e.g., new graduates).

That said, Calgary does have a vibrant and collaborative gaming community. Industry associations such as Digital Alberta have played a key role in fostering the gaming community over the years. Post-secondary institutions also have been broadening their options for game development related certificates, offering more opportunities for the next generation to develop desired skills and knowledge at an early age.

It is worth noting that, Calgary's video game industry is part of a larger and rapidly growing industry in Canada and the world. Globally, the video game industry worth increased to 179 billion USD in 2021, surpassing the forecast made in 2016. The ESAC Canadian Video Game Industry 2021 report reveals that the number of video game companies has increased by 32% over five years. CED has developed a Video Games & Immersive Technology Strategy to capitalize on this growth. The strategy is aimed towards establishing Calgary as a hub for video games and immersive technology.

### **Overall competitiveness**

Canada is the third biggest producer of video games worldwide after the U.S. and Japan, making Canada a significant player in the global gaming landscape. However, **Calgary operates at a competitive disadvantage compared to other Canadian jurisdictions** (e.g., Montreal, Vancouver, Toronto, Halifax, Winnipeg). These more established ecosystems, more major global players, available talent, and/or attractive labour-based tax incentives tailored for the video game industry.

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<sup>33</sup> *Calgary Herald*, [Calgary video game developers set to level up globally](#). June 2023



Indeed, access to funding, both public and private, is a commonly reported perceived issue by video game companies in Calgary.<sup>34</sup> Most notably, the lack of a competitive labour-based tax credit makes scaling a video games company in Calgary a difficult business proposition. As a result, companies looking to scale are likely to do so by hiring remote workers in other, more competitive jurisdictions (e.g., Quebec).

## Key opportunities and barriers

### Investment and entrepreneurship

#### Barriers

- Alberta lacks competitive tax incentives for video game companies. What's more, the lack of understanding of the video game industry leads to less sophisticated investors as well as viable supporting mechanisms in banks.
- Calgary's video game industry consists of small businesses, which means they can not take advantage of Alberta's lower corporate tax rate before they can put a product out to the market.
- The need to support games-specific marketing/audience development efforts.
- The video game industry is shifting towards a discovery-based digital economy. In this environment, the focus of a company has shifted from seeking external support to increasing quality engagement. As a result, the need for support staff who can assist in creating those engagements, such as creating promotional videos and editing content, are crucial to increase sales.

#### Opportunities

- The amount of micro sized companies means that Calgary needs to foster an ecosystem to scale up small companies before they can become major profitable ventures.
- The young generation of Angel networks and high network individuals represent a private investment opportunity in Calgary. Furthermore, the U.S. represents another potential private investment source to tap into.
- Creative Destruction Lab has the potential to become a center of investable targets that can be accessed to high network individuals. Other collaboration partners include Alberta Games Series, Startup TNT, etc., At the same time, the partnership could also offer mentorship to equipped people with business knowledge.

### Access to infrastructure

#### Barriers

- Successful jurisdictions (e.g., Montreal) offer low- or no-cost office space and act as a physical catalyst for networking, upskilling and collaborating within the sector.

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<sup>34</sup> CED, Video Games & Immersive Technology Strategy, 2020

- Calgary has a lower cost of business operation and cost of living, compared to other leading video game hubs such as Toronto and Vancouver. However, small companies are a few steps away from taking advantage of the attractive business environment as they do not generate enough revenue.



## Opportunities

- Further leveraging Unity's presence (the only globally recognized entity) in Calgary, can provide Calgary-based companies with a technical edge (e.g., by having Unity review their code).
- To support startup stage companies, Calgary could offer low to no cost office space which lower part of the operating costs (typically 15-20% of annual operating expenses).

## Talent attraction and retention

### Barriers

- Calgary lacks a mature stable base of talent because skilled workers would move to jurisdictions that offer competitive tax incentives.
- Calgary, in general, is missing a tier of experienced employees in the local talent pool. The existing talent pool consists mostly of solo founders and junior developers, with few senior and mid-career workers available to hire (as they are attracted to competing Canadian and international jurisdictions).
- Without effective tax incentives, companies in Calgary have to hire remote-working employees from other provinces.



### Opportunities

- Creating a repository of and/or providing access to industry experts and mentors could be a valuable source for video game professionals seeking guidance and growth.

## 3.4 Esports

### Definition

Esports has been historically difficult to define and describe as an industry. This ambiguity is, in part, because it appears to be an offshoot of the video game industry but its operations have little to do with the game development ecosystem. Rather, esports operate more like the traditional sports industry, utilizing video games as a medium for competitive play. Like its sports counterpart, esports range in type, scope, and level of professionalization. For example, the Call of Duty League, run by multinational game publisher Activision, is a multi-million-dollar professional North American esports league with 12 franchised teams playing the eponymous first-person shooter; this league is supported by sponsors and its broadcast with commentary on both dedicated streaming platforms. Alternatively, high schools across Alberta host their own intermural and interscholastic esports tournaments and leagues for free-to-play games like *Rocket League* and *Pokémon Unite*.

Ultimately, discussing the economic viability of esports requires understanding that while it is rooted in competitive video gaming and can be sustained at a grassroots level, the professionalization and growth of the esports sector is contingent on developing other parts of the stakeholder network. Specifically, infrastructure providers, community enablers, and investors provide important levers for the localized growth of esports, tied to placemaking and tourism, as well as sponsorships and franchise appeal seen in traditional professional sports.

Esports		
<b>Definition</b>	Competitive video gaming that is coordinated by various entities via leagues and tournaments; it is often framed by its spectatorship as play is broadcast to audiences.	
<b>Business models</b>	<p><b>Game-based:</b> Game developers and publishers build the games and are involved in sanctioning and running leagues and events.</p> <p><b>Sports-based:</b> Provide a digital counterpart for traditional sports leagues and teams (namely for licensed sports video games).</p> <p><b>Media-based:</b> Linked to the business logics of broadcast media and the value of event spectatorship.</p>	All involve value derived from sponsorships, licensing, and advertising.
<b>Creative outcomes</b>	Established and localized esports organizations, leagues, and teams; broadcast events; placemaking and tourism around esports facilities and arenas.	

### Connections to the Creative Economy

As its different business models would suggest, esports are heavily tied to other parts of the creative economy. The most common association is with the video game industry, as games are the primary vehicle of competitive play. Virtually all mainstream esports titles are developed and published by multinational developers such as Activision Blizzard, Epic Games, EA, Tencent and Nintendo. These same companies also operate and sanction esports events, leagues and tournaments for their titles and tend to be *de facto* governing bodies. However, it should be noted that the existence of a local or regional game development industry alone does not foreground a successful esports industry; esports are intricately linked to multinational game publishers (which tend to operate in hubs in the United States, China, and Japan) and are not tied to independent game development ecosystems.

Esports are also connected to streaming and broadcast media. Given that much of the value of esports is derived from sponsorships, advertising, and licensing, the industry has developed a symbiotic relationship with gaming streaming platforms such as Twitch, video streaming sites like YouTube, and traditional broadcasters like ESPN to broadcast matches and events. The onus on

spectatorships has resulted in high production values, detailed commentary, sponsored content, and advertising, akin to professional sports programming on cable television.

And while more on the periphery of the creative economy, esports is an activity and a sector that appeals to a mix of demographics, including those with an affinity to tech, professional sports, and gaming culture – this itself is highly conducive to placemaking and branding for specific neighborhoods and districts. An esports presence, whether it be a venue or headquartered organizations, can bolster urban entertainment districts or existing technology hubs.

### **Situation**

While professional esports are starting to establish themselves on an international scale, the sector is focused primarily in major metropolitan areas with existing tech and sports infrastructure that can support franchised leagues and teams as well as professional sports' digital analogues. Esports have not yet emerged in this form in Alberta or Calgary specifically.

Nordicity's mapping of esports assets in Calgary demonstrates that the sector is nascent, sustained by grassroots, community organizations and collegiate esports initiatives. Certain communities have formed around informal competitive play of titles such as *Halo*, *Super Smash Brothers*, and *Street Fighter VI*, while other leagues and tournaments are run out of post-secondary institutions, like the University of Calgary, and sports and recreation organizations like the YMCA of Calgary and the Calgary Sports and Social Club.

However, Calgary is seeing more tangible opportunities for esports emerge. TracksVR is a venue with 12 set-ups for virtual racing simulation, an example of infrastructure that could provide opportunities for participating in established esports leagues, including iRacing events and the FIA Formula One Esports Series. The Southern Alberta Institute of Technology (SAIT) Trojans esports program, now in its second year, saw success in its participating in the North American Collegiate Esports Starleague (NACE Starleague) across 5 teams/game titles, advancing esports on the intercollegiate front and engaging students and staff alike in more formal leagues and tournaments.

The most prominent and immediate opportunity for esports in Calgary is Bow Valley College's forthcoming Calgary Entertainment Arts Production Hub, which plans to house an esports arena with a capacity for 300 spectators in Downtown Calgary; capitalizing on these facilities, Bow Valley College is also launching an Esports Business Management program in 2024.<sup>35</sup> The Hub received \$5.5 million from the Opportunity Calgary Investment Fund, an initiative supported by CED. This investment in esports infrastructure and training underlines the city's desire to upstart and grow the industry in a sustainable way, connecting infrastructure and training opportunities.<sup>36</sup>

### **Overall competitiveness**

While not on the scale of the United States or Western Europe, the esports sector in Canada is incrementally growing, leveraging strong grassroots initiatives, established professional sports franchises, and strategic investments from dedicated esports companies. However, the esports industry is concentrated in 2 major Canadian cities: Toronto and Vancouver. Both cities have hosted major international esports tournaments and had franchised esports teams (for example, Call of Duty League's Toronto Ultra, and formally, the Overwatch League's Vancouver Titans). The next major step in Canadian esports is Overactive Media's anticipated Toronto esports arena, planned to have 7000

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<sup>35</sup> *Calgary Herald*, [Beyond a game: Calgary looks to score millions with esports tournaments](#). January 2023

<sup>36</sup> *Calgary Herald*, [Digital media hub at Bow Valley College receives \\$5.5M investment from city fund](#). November 2023

seats and a dedicated training center.<sup>37</sup> Ultimately, this marquee arena is intended to attract major tournaments and events from established international leagues and franchises.

Alberta's esports association, the AESA, represents an authoritative presence for the provincial esports sector. The organization's 2020-2025 Strategic Plan characterizes the Alberta esports landscape as "decentralized" and "lacking the fundamental infrastructure to scale, with limited career pathways and developmental opportunities for professional players and industry talent, no governance to establish leadership and accountability, and growing demands exceeding grassroots capacities".<sup>38</sup> Ultimately, while there are few competitors in Canada, Calgary's success in the esports industry will be contingent on its ability to present the city as a unique destination for esports domestically and internationally.

## Key opportunities and barriers

### Investment and entrepreneurship

#### Barriers

- The "Wild West" nature of the esports industry means that there is no clear path for investors, both in terms of long-term planning and risk management; it becomes more harder to persuade established firms to pursue esports.
- Volatility/cyclicality of esports titles/leagues/events can hinder buy-in and reduce appeal of industry, especially against the backdrop of the deceleration of technology and games company growth.

#### Opportunities

- Organic partnerships between major sports franchises (Calgary Flames and Calgary Stampeders) provide a basis for the growth of sports-based esports (for example, leagues related to NHL and Madden games, respectively).
- There is the possibility of leveraging existing entrepreneurship and business acceleration resources out of Calgary PSI (creative sector, tech, tourism, and other industries).
- The value proposition of esports as an attraction, like any other major sports event, can provide unique opportunities for tourism and city programming, if supported and promoted in the right way.
- The presence of grassroots esports community can provide a springboard for a more formal presence (brokering relationships, building credibility, standardizing policies and approaches, creating governance structures, etc.) eventually appealing to potential investors for additional buy-in.

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<sup>37</sup> Sportnets, [OverActive Media to build \\$500M esports, entertainment venue in Toronto](#). February 2021.

<sup>38</sup> Alberta Esports Association – [Strategic Plan 2020-2025](#), p. 7

## Access to infrastructure

### Barriers

- There are no dedicated esports venues in Calgary, meaning that events are hosted in different, less-optimal spaces (convention centers, university rooms, community centers, bars, etc.).
- Esports require specific technical set-ups, scaled based on the nature of the event; this includes network and telecommunications infrastructure to ensure low-latency play, seamless broadcasting, and anti-cheating systems. The scale of these set-ups may prevent larger marquee events from being held if the infrastructure cannot support these needs.

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### Opportunities

- The appeal of esports, based on its affiliation with video games and sports, provides a unique opportunity for placemaking around a technology district or downtown core neighborhoods that value unique types of attractions.
- The existence of grassroots esports communities unique to Calgary can help inform stakeholders about the specific infrastructural needs for the city's current and prospective esports sector.

## Talent attraction and retention

### Barriers

- Calgary is not internationally recognized as a gaming or creative technology hub like other Canadian counterparts (Montréal and Toronto), which makes attracting and retention of labour more difficult.
- The lack of visibility and mainstream understanding of esports makes communicating and demonstrating potential career pathways more tedious.

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### Opportunities

- The interscholastic and collegiate esports presence in Calgary can, if cultivated in partnership with the City, support pathways into industry (via the formation of networks and increased exposure to the industry as a whole)
- Forthcoming training programs out of Bow Valley College (their new Esports Business Management) is likely to help attract and eventually retain newly-qualified labour, with the skills and networks needed to sustain and growth the local esports ecosystem.
- The appeal and overlap of esports across video games, broadcast media, and professional sports provides alternative recruitment pools and skills cross-over (sports management, media production, game development programs, etc.).

### 3.5 Immersive Media

#### Definition

Trying to grasp the concept of immersive media is a complex task as, despite the work conducted around digital realities in the 1980s, the sector is still emerging and changing at a rapid pace. Unlocked by virtual reality (VR) hardware such as the Oculus headset released in 2013, immersive technologies have seen a decade of ups and downs, of euphoria and disillusion. Most of all, immersive media has become a catch-all phrase to encompass the various innovations that blur the frontier between digital realities and real-life. As such, VR was quickly followed by a number of technologies such as augmented reality (AR), haptics and spatial audio, which further enhance the sense of immersion into these experiences between two worlds.

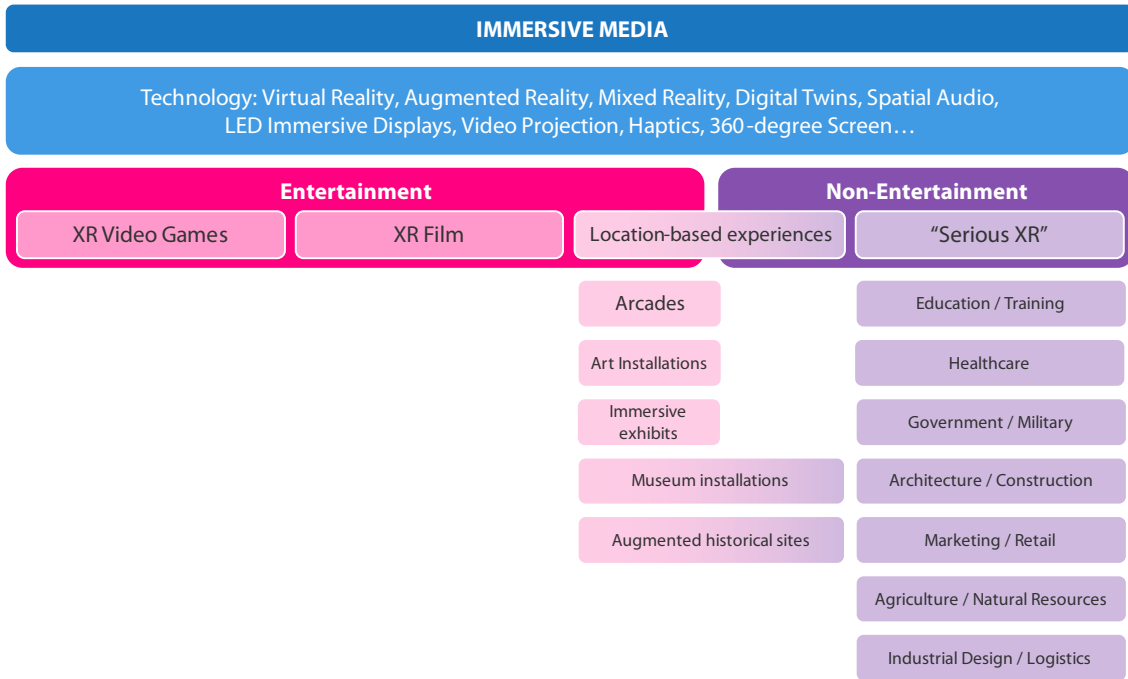
This variable geometry is better apprehended when considering the wide array of industry verticals in which immersive technologies can be applied. The first use cases that come to mind are entertainment products, VR games such as *Beat Saber* and *Half-Life: Alyx*, or AR applications like *Pokémon GO* or Snapchat filters. For this strategy, these entertainment uses of immersive technologies have been integrated into Video Games (Section 3.3) or Film (3.1) with respect to the creative output.

A significant part of the growth in the immersive media sector can be attributed to non-entertainment use cases (“serious XR”). Immersive technologies have proven to be key innovations in healthcare (telemedicine, PTSD treatment), architecture and construction (previsualizations), education and training (simulations), etc.

More recently, immersive media has taken a very tangible turn, focusing on the augmentation of our reality through video and audio projection, LED walls, etc. Around the world, purpose-built spaces and repurposed infrastructures are now dedicated to this type of location-based experiences. This type of venues has been very popular in the past months, notably with the grand opening of Sphere in Las Vegas, a music and entertainment arena with a 580,000 sq ft exterior LED display space. Similar technologies are used by museums, science centres, natural and heritage sites to offer new experiences to visitors, thus opening a space between entertainment and enterprise use-cases. Location-based experiences have thus emerged as a key component of creative and innovative placemaking.

For this strategy, immersive media is therefore primarily defined as location-based experiences (entertainment and non-entertainment). The profile of the sector in Calgary, predominantly non-entertainment focused (see Situation below), supports the rationale to include industrial and educational applications in this strategy. In fact, the underlying technologies and skillsets are the same across the spectrum and all immersive media companies can face similar challenges, regardless of the verticals they operate in.

The schematics below provides a high-level overview of this complex sector:



Immersive media		
<b>Definition</b>	In this context, the use of immersive technologies to develop augment in-person experiences (location-based experiences) or as innovative solutions for industrial, educational, government and marketing purposes.	
<b>Business models</b>	<b>Location-based experiences</b> Ticket sales, space rental Fee-for-service contracts Original content production Proprietary technology (software, hardware)	<b>Industrial use cases</b> Fee-for-service contracts Proprietary technology (software, hardware)
<b>Creative outcomes</b>	Immersive/interactive exhibits (galleries, museums, science centres, historical sites), arcades, XR software, training simulations	

## Connections to the Creative Economy

Immersive media, beyond film/TV and video games applications, relies heavily on Animation and VFX tools and techniques to create engaging and convincing digital environments. Even in serious XR applications, 3D artists and animators are employed (e.g., training simulations, construction previsualizations), which reinforces the idea that immersive media, across its spectrum of use cases, is deeply intertwined with other segments of the Creative Economy.

As technology is key in this sector, the immersive media community has organic ties with the broader innovation ecosystem. Research and development is a strategic component of the immersive media sector to always keep the edge on the latest, most immersive technologies. A platform where immersive media companies and academia can interact, collaborate and dream together is key in the success of this industry.



Looking at beneficiary industries, immersive media can also have a significant impact. Of course, serious XR utilizes creative technologies in non-entertainment verticals and innovations made for the entertainment industry can be converted for industrial uses, and conversely. In addition, location-based experiences are playing a key role in placemaking and are becoming key landmarks to attract tourists. Numerous cities are developing immersive arenas (some replicating the Sphere model, some opting for less monumental venues) and exhibition spaces such as the OASIS Immersion in Montreal and Illuminarium in Toronto. Immersive technology can thus augment the potential of other core and ancillary creative industries with a live component such as Esports, Sports, Music, Performing Arts and Visual Arts.

Finally, when it comes to inclusion and diversity, immersive media can be a powerful storytelling tool as a way to design non-linear structures, a traditional way to tell stories in some communities. Immersive technology has also been proven to increase empathetic responses for the user/audience, thus becoming a strong medium to convey a message or invite other perspectives.

### **Situation**

Out of the 25 immersive media companies identified in Calgary (as defined for this strategy), 20 are primarily focused on industrial use cases (architecture, agriculture, manufacturing, training and healthcare), 5 are offering location-based experiences. In addition, 4 video games companies have shown significant interest VR/AR games.

As such, the immersive media space in Calgary is predominantly non-entertainment. This community is quite dynamic for a city the size of Calgary. It is in part thanks to the broader innovation ecosystem and the rich network of postsecondary institutions that have shown interest in immersive technologies. For instance, the Serious XR Lab (SEER Lab), housed at the University of Calgary, conducts research on how to engineer immersive analytics and immersive control applications for specific industry uses. The Mount Royal Experience Lab facilitates access to XR technology for faculty and students, acting as a research and testing ground.

The Alberta chapter of the VR/AR Association further activate the immersive media and technology community with regular events, meetups and conferences. VR After Dark, hosted at Platform Innovation Centre in November 2023 was an opportunity to try out the latest immersive technologies in entertainment (i.e., video games) and other supporting industries like healthcare, oil and gas, and manufacturing.

When it comes to location-based experiences, VR enthusiasts can find a few arcades in Calgary to play immersive games and simulation. The city will also welcome the Beyond Monet Exhibit, an extended reality celebration of Claude Monet's paintings, and a very popular type of attraction in recent years. The Digital Innovation Gallery at the Telus Spark Science Centre is a 3,000 square-foot space dedicated to digital and interactive narratives and presents experiences between science and storytelling.

In summary, immersive media is quite vibrant in Calgary, spearheaded by companies operating in ancillary creative and industrial sectors. The immersive entertainment sphere is gaining traction as the general public becomes more familiar with the spectrum of experiences that these technologies enable.

### **Overall competitiveness**

At a high level, Canada is well positioned in the global immersive media market. This outlook makes the domestic competition quite fierce, with leading hubs in Montreal, Vancouver, and Toronto. These hotspots have built on a fertile ground of video games companies to stimulate the creation and development of XR expertise. Montreal has notable past success with company Vrvana acquired in 2017 by Apple or SACO Technologies becoming the provider of the LED technology used for the

external display of Sphere. Toronto has also drawn attention with companies like Secret Location and Lighthouse Immersive.

With its dynamic and rapidly growing community of SMEs and freelancers, Calgary could become a solid second tier jurisdiction in Canada, with the potential to emerge as a key leading competitor, notably in the enterprise space.

### **Key opportunities and barriers**

#### **Investment and entrepreneurship**

##### Barriers

- More difficult to make connections at the federal level to understand funding opportunities.
- No community/lounge for founders to connect and share knowledge.
- Education is still needed for funders, investors, users, and customers to understand the potential of these technologies.

##### Opportunities

- Strong ties with the innovation ecosystem and post-secondary institutions.
- A track record of investment in technology that demonstrates the potential of Calgary.

#### **Access to infrastructure**

##### Barriers

- Immersive technology must be tested in-person to fully grasp its potential.
- Location-based experiences require purpose-built or repurposed spaces regularly updated to showcase the latest technologies.

##### Opportunities

- Beyond location-based experience, limited infrastructure needs.
- Some spaces are already dedicated to immersive experiences.
- A strong support ecosystem at the municipal and provincial levels.

#### **Talent attraction and retention**

##### Barriers

- A decent talent pool, but some specific expertise that is not always found in Calgary, or Alberta.
- Challenges getting technology into the schools to raise awareness.
- Programs are mainly focused on creating content, less on developing tools.

#### Opportunities

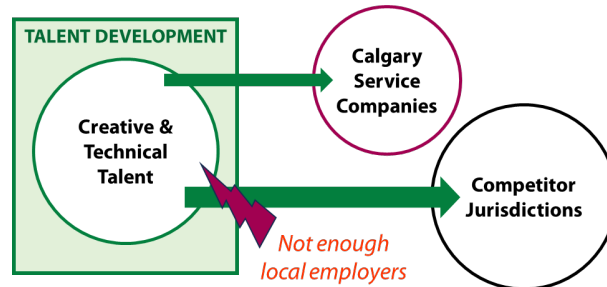
- Post-secondary institutions are already interested and involved in the industry.

## 4. Problem Statement and Strategy Rationale

The challenges facing the Creative Economy in Calgary can be summarized – and addressed – as follows:

### 1. Challenge: To develop a pool of creative employers

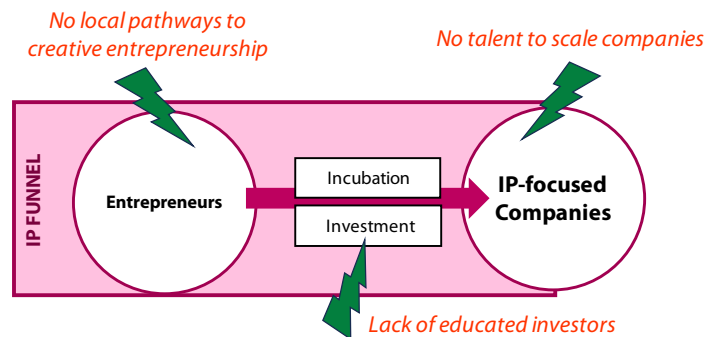
Beyond AV production, the Creative Economy in Calgary **lacks the employers** looking to scale their businesses that would help attract (and retain) talent and investment. In the current context, **talent development efforts would most likely benefit competitive jurisdictions** as only a fraction of Calgary-based graduates would find local job opportunities.



The strategy thus needs to address this lack of employers by supporting the **development of new – and the business expansion of existing - companies that focus on intellectual property**, as these companies are (in general) more sustainable and scalable than those focused on fee-for-service work. With the adequate support ecosystem and investment, these companies would allow the local Creative Economy to absorb a larger talent pool (either by attracting or retaining talent).

### 2. Challenge: To align the talent pipeline

A strategy that focuses solely on investing in Calgary grown IP would in return face a two-fold challenge regarding talent. On one hand, to develop more employers there need to be sector-specific talent development initiatives that **create strong entrepreneurial pathways** to prepare the next generation of founders. On the other hand, companies will need **creative and technical talent to grow and scale**. If the local talent pipeline does not provide these critical resources, high-profile companies will need to redouble efforts to attract talent from other jurisdictions, which could restrict growth prospects.



Consultation revealed that there are **few companies that meet the three conditions for scalability**, that is (a) a desire to scale, (b) an attractive, market-ready product/service, and (c) the internal capacity (i.e., talent) to take their project to the next phase. As such, these employers also lack sufficient capacity and competitiveness to attract and retain talent.

There is also a **lack of local educated investors** that understand how to identify opportunities in the Creative Economy (which are currently limited). Their support will necessary to transform creative teams into scalable and sustainable companies.

### **3. Solution: Combine growth to achieve scalability**

The appropriate approach for Calgary is to combine an entrepreneurship funnel with targeted talent development initiatives.

Both aspects of the talent pipeline are required for the Creative Economy to flourish, but at this stage, the **immediate focus should be on building entrepreneurial skills**. The pipeline for creative and technical talent training should be monitored and adjusted to meet the needs of the existing service companies, but should be expanded when an appropriate population of scalable IP companies exists in Calgary.

In parallel to entrepreneurial talent training, **investor education** activities should be carried out in the short term to set the stage for the next step (investment/incubation). With a better understanding of the context and business models in the Creative Economy, local investors will be ready to examine the pitches of emerging companies.

This approach will ensure create the condition for the emergence of scalable companies that will drive informed investment, employment, innovation and creativity: Calgary-grown companies developing Calgary-made products.

### **4. Solution: Amplify efforts with infrastructure**

The dual approach addresses two of the three strategic pillars identified. The third component, Infrastructure, will play **a supporting – but valuable – role in this strategy**, facilitating collaboration and access to technology. The development of industry-specific infrastructure (e.g., eSports facilities) and more general facilities (e.g., a creative economy innovation hub) will stimulate the emergence of creative teams and eventual scalable companies. Some activities will be amplified by supporting infrastructure. For instance, incubation should take place in the creative hub to facilitate knowledge-sharing, host workshops, industry events and investor meetings. As such, infrastructure not only ties into the attractiveness of the city for both talent, but also for investors.

In summary, the **three dimensions should be interwoven** in a cohesive strategy that supports the strong local service industry while preparing talent, infrastructure and the regulatory framework for the emergence of an entrepreneurial culture.

### **5. Implementation: Let the Strategy play out over time**

While all three dimensions should be developed in parallel to achieve this level of complementarity, it must be noted that this strategy falls within a **five-plus-year horizon**. As a result, not all efforts and investments should be made in the short term.

For instance, incentives such as tax credits (e.g., for games and IM companies) are most effective for companies ready to scale and/or sustain their growth. However, Calgary is not yet home to many such companies, so there is time to effect that policy change. Rather, **priority should be given to actions that first support the creation of these potential targets** (e.g., balanced talent development, incubation).

### **6. Implementation: Establish strategic partnerships**

This multidimensional sector strategy cannot be undertaken by CED alone. Rather, it requires **strategic partnerships within the support ecosystem**. In this sense, every support organization can play to its own strengths and enter the framework where and when needed. For example, CED has the resources (and mission) to advance opportunities in achieving economic success and would therefore be best positioned to support scalability. Incubation, on the other hand, will be better



delivered by Innovate Calgary or Platform Calgary. Of course, for CED to play its optimal role, it will also need to be party to the creation of more creative industry companies that have the desire and means to scale.

## 5. Creative Economy Strategy

### 5.1 Vision

The cohesive Creative Economy strategy will support the strong local service industry while preparing talent, infrastructure and regulatory framework for the emergence of an entrepreneurial culture through:

1. **Business Attraction - Full Service In-bound Service Production:** Long the ‘bread and butter’ of Calgary’s creative economy, it is important to maintain the City’s reputation as a destination for world-class production, moving it to a full-service destination. In turn, this reputation will enable and encourage investment in other elements of the Creative Economy.
2. **Talent Acceleration – Building the Local Talent Pool:** Talent being the cornerstone of the Creative Economy and one of the key catalysts for growth, it is imperative that the local talent pool reflects the need of the industry to best support scalability. Constant monitoring and adjustment will be required to identify in-demand areas and relevant programs and skills. Finally, to stimulate the local entrepreneurial mindset, the talent pool will need to establish these industry-specific entrepreneurial skills needed to make IP successful.
3. **Business Expansion – Successful Entrepreneurialism and Scalability through IP Ownership:** The biggest opportunity for Calgary’s creative economy is the development of new IP in several industries. From animation to games to linear audiovisual content, the strategy will need to focus on methods to support successful entrepreneurialism and scalability, and thus generate wealth for Calgary and its residents.

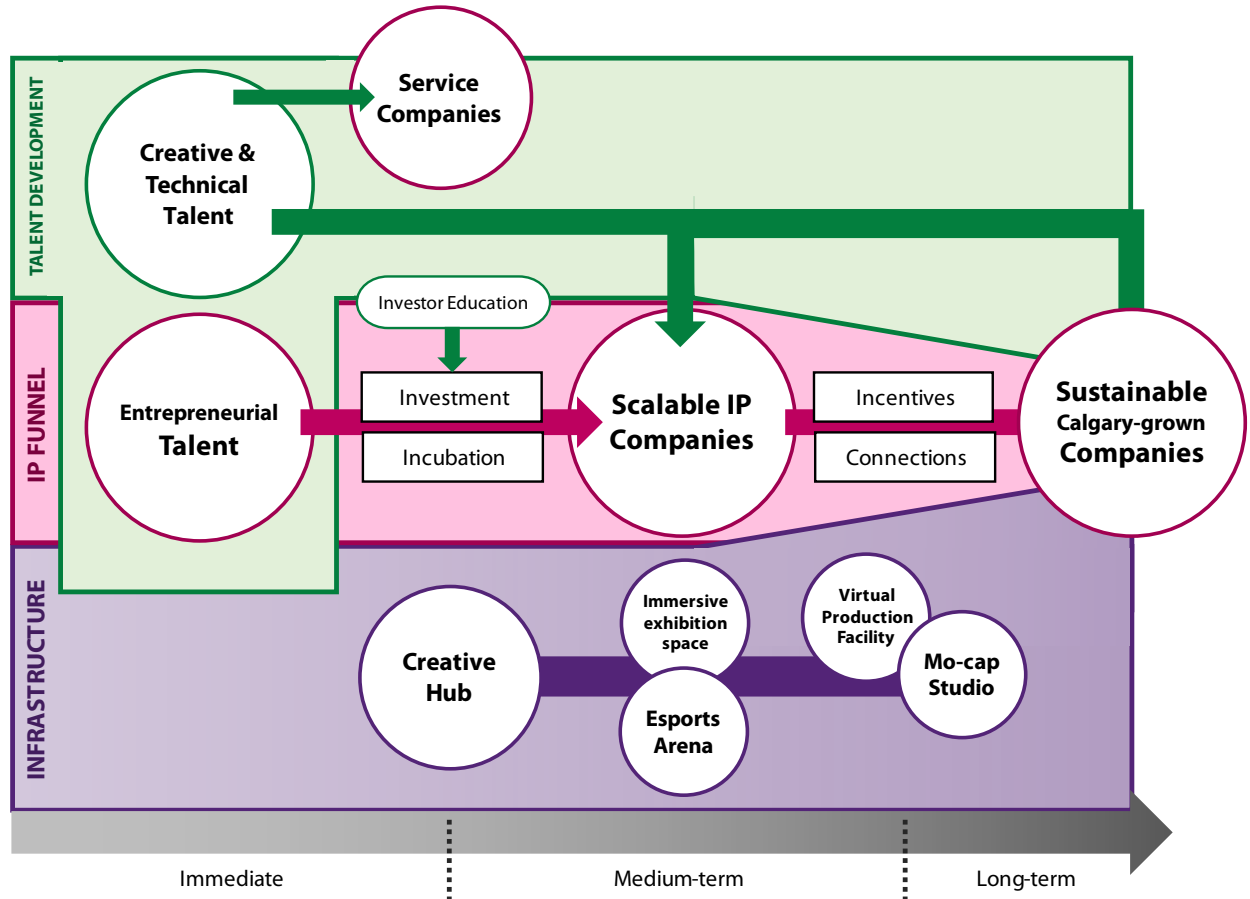
Pulling these three streams of creativity together, the vision for Calgary’s Creative Economy could be summarized as follows:

*Building on its existing reputation as an innovative and dynamic city, Calgary will become known as the best place in Canada – and one of the best places in the world – to create, develop, launch, scale, and maintain creative IP.*

### 5.2 Strategic Actions

To achieve the vision of a sustainable Creative Economy in Calgary, CED and its partners will need to address all three strategic pillars (as outlined in Section 2.3). That said, given the current state of Calgary’s Creative Economy, the greatest emphasis should be placed on supporting the development of commercializable intellectual property. This overall structure is depicted in the following graphic:

Figure 3: Recommendation Overview



### 5.2.1 Maintaining and Growing the Talent Pool

For most companies operating in the Creative Economy, the primary resource (and expense) is human capital (talent). As noted in Section 3, there are some structure/regulatory challenges that limit Calgary’s ability to attract and retain talent – notably the lack of a competitive labour-based incentive in animation/VFX and games/immersive media. These impediments provide a strong disincentive for Calgary-based companies to scale their teams in Calgary – while at the same time creating a drain on mid-career and senior talent who tend to move to jurisdictions with competitive incentives.

At the same time, Calgary is currently limited in its ability to absorb talent in most of the Creative Economy (apart from service productions in linear media) by the relative lack of employers. As such, it is likely that the most impactful action that CED and its partners can take to support employment in the Creative Economy is to support the development of successful IP.

Irrespective, post-secondary institutions will continue to play a key role in developing entry-level talent for Calgary’s Creative Economy. As Section 3 notes, there are several opportunities from a variety of industries, including:

- Further developing micro-credential programs for key linear media roles.
- Exploring opportunities for immersive media within and outside the core creative industries.
- Ensuring that recent graduates are encouraged to join the IP Funnel.



- Considering new internship and co-operative models to better fulfill the needs of students and employers.
- Inviting students to leading-edge facilities and testing labs, and inviting more industry professionals into the classroom.

To seize these opportunities, there must be clear lines of communication between industry (e.g., via CED and/or industry associations) and Calgary-based PSIs and other training institutions. CED and its partners can serve as a conduit for this communication (e.g., by holding a regular roundtable). By facilitating the creation of this forum CED and partner organizations will not only enable institutions to have a clearer picture of the industry’s needs and expectations, but also to coordinate and supplement efforts. As such, CED staff could use their connections and knowledge to be a reference point for the industry and share crucial information to inform PSIs’ decision-making (i.e., flexible programs such as microcredentials and certificates, revision of core programs, etc.).

Eventually, when more employers exist and are attempting to scale their companies, CED and its partners should explore an incentive to help offset the cost of onboarding new talent. For most companies in the Creative Economy, there is a gap between what is taught in an academic environment and the skills/knowledge needed to thrive in the workplace. While better communication between industry and PSIs can help to mitigate this gap, it will nonetheless persist. At the same time, the same people who train new hires (to close this gap) are typically those needed to develop the creative products in the first place. As such, support to offset this on-boarding cost would likely lead to the retention of more graduates in Calgary-based companies.

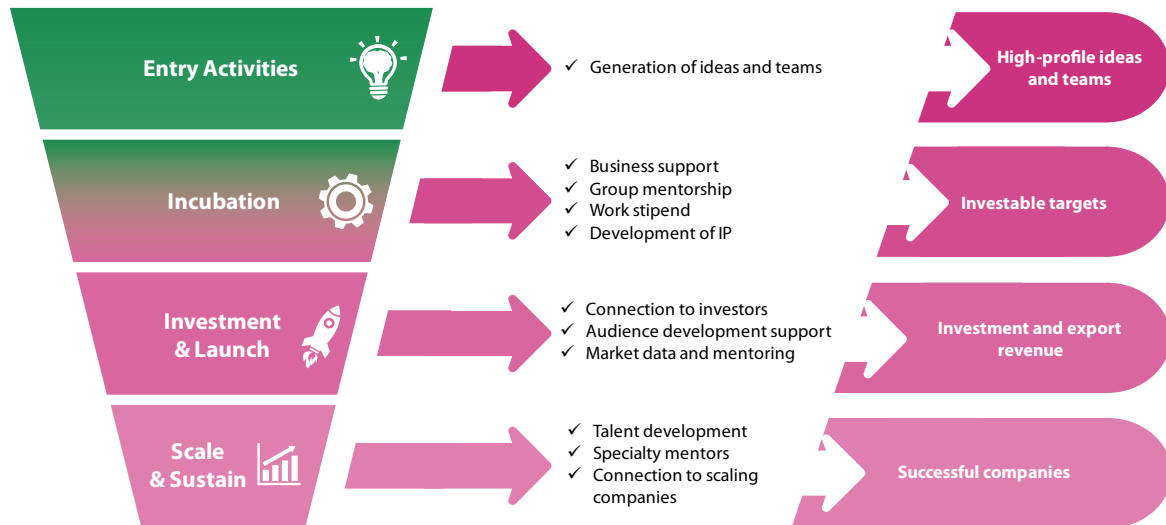
Irrespective of the directions taken with respect to talent development in Calgary, it is imperative that they be done in an inclusive and anti-colonial manner. For example, supporting unpaid (or low paid) internships will ensure that only a certain demographic will be able to access them. On the other hand, widening the lens from only formal PSIs to “training institutions” brings a wider range of participants to the table.

<b>Immediate</b>	<ul style="list-style-type: none"> <li>▪ Deliver entrepreneurial training, mentoring and talent acceleration</li> <li>▪ Develop and deliver investor education initiatives</li> <li>▪ Establish clear line of communications from industry to training ecosystem</li> </ul>
<b>Medium term</b>	<ul style="list-style-type: none"> <li>▪ Ramp up creative and technical talent development</li> <li>▪ Facilitate knowledge-sharing and dissemination of market intelligence</li> </ul>
<b>Long term</b>	<ul style="list-style-type: none"> <li>▪ Regularly assess industry needs and align talent pipeline</li> <li>▪ Advocate for changes to the regulatory framework to support talent attraction and retention</li> </ul>

## 5.2.2 Fostering Entrepreneurial Culture through IP Development

The overarching goal for Calgary’s creative economy vision is to transition from being part of the known IP production to being the origin of that IP. This shift therefore guides the direction and focus of the recommendations, as illustrated in the diagram below.

Figure 4: The IP Funnel



The process of establishing an IP funnel is designed to enable and encourage companies in the core creative industries to form in Calgary and to stimulate the creation of content set for commercial success on the global stage. Of course, this funnel will be most relevant to those core creative industries for which IP is (or can be) a primary focus: linear media, animation, immersive media, and games.

It is important to note that while the IP funnel is designed as multi-stage, entry can be made at any stage for those who meet the requirements. For example, existing emerging Calgary-based animation companies seeking to develop new IP, could join at the Incubation stage.

Throughout the funnel process, a pool of national/global experts will be needed to judge projects’/teams’ progression and act as mentors. In this way, the funnel will always have access to the perspectives needed to be responsive to current and future trends impacting the development of the creative economy.

To support the creative economy growth, the IP funnel should **operate in tandem with continued support for service production** (primarily) in linear media. This support includes (but is not necessarily limited to) initiatives such as market trade mission and the promotion of well-known IP that was produced in Calgary. This activity both sustains a portion of the talent pool (e.g., film/TV crews), and also contributes to Calgary’s overall reputation as a hub of creative activity. At the same time, the strategy must recognize the limited upside potential of service production (i.e., fees for services rendered), as well as the potential of such production to be susceptible to market disruptions (e.g., labour strikes).

### Entry Activities

The first step in the IP funnel focuses on generating ideas and teams through industry-specific inclusive and accessible entry activities, such as local jams, community events, and student competitions/capstone projects. The target audience of these activities would be anyone with an

interest in generating IP. To ensure inclusivity and wide participation, these activities need to be directed to and communicated to various diverse parts of Calgary's community. Events can also be scheduled at different times of day/weekends so as to accommodate different work schedules.

Collaborating with organizations such as Digital Alberta and post-secondary institutions is crucial to connect with and amplify (but not duplicate) their respective efforts. These partnerships will be essential to the implementation of a larger, long-term strategy.

The common element to all entry activities will be the identification of those teams who are able (i.e., have an idea that could potentially be a commercial success) and willing (i.e., have an interest in pursuing the idea) to take the next step into incubation. That process will be the first opportunity for international/global experts to participate in the funnel.

**Objective(s):** The primary objectives at this stage are to generate commercializable ideas and "proto-teams", which then leads to increased participation in entry-level events.

## **Incubation**

The next phase involves supporting teams with viable ideas, which can be considered to enter the incubation process. Instead of a grant, a stipend will be provided to teams while they work on the idea/product. This support would be provided for a flexible period of time, depending on the specific product and industry. For example, it may take longer for a game to be incubated than a linear media project. This modest stipend would allow teams to "go all in" on their projects, ensuring that their focus remains on the project at hand (as opposed to making a living). This approach also helps to include communities that may otherwise not be able to participate for financial reasons.

This phase also includes mandatory participation in activities held at a creative hub (see Section 5.3) and essential business training tailored to specific sectors. The participants will also have access to group mentoring based on specific sectors, lending them access to international/global experts in their fields. These experts – alongside a small number of dedicated staff -- will also monitor the development of the projects, cutting those that stall or for which no reasonable market exists.

While a high failure rate is expected at this stage, the "fail fast" approach ultimately benefits the participants to test their products quickly, and it allows the funnel to identify investable targets early without excessive resource investment. Also, this experience will render those teams that do not complete the incubation period more employable by existing or new companies looking to scale.

**Objective(s):** The aim here is to create investable targets or proto companies. Potential deliverables include the following:

- For games: prototype/vertical slice
- For animation/linear: script development
- For both: audience intelligence, pitch deck

## **Investment & Launch**

The third stage of the funnel is centered on investment and launch support. At this stage, pitches or prototypes (depending on the core creative industry) validated by international experts are mandatory for entering eligibility, though it is expected that many will derive from the incubation program. The primary focus of this stage is for CED and its partners to facilitate industry connections between companies and potential investors. These investors may be distributors (linear media, animation) or publishers (games) at in-market sales events. Alternatively, they could be private

investors (e.g., local high-net-worth individuals) looking to invest in high-potential properties and/or their underlying companies.

At the same time, support for self-publishing (in games) and audience development (for all IP) is also crucial to be provided. This support will encourage IP-holding companies to retain relationships with their customers, while also reducing the perceived risks involved with their pitches (e.g., by illustrating the potential audience).

One potential opportunity for audience development support taps into the core creative industries themselves. Content creation teams could be connected to Calgary’s commercial video production sector to produce sales and marketing materials for their IP. In other cases, CED/Partners can also provide business intelligence and mentorship on how to use the data to support pitch development and self-publishing.

**Objective(s):** The primary goal is to secure investments in Calgary-based IP and commercialize products to attract export revenue.

### Scale & Sustain

Finally, the IP funnel addresses helping companies to scale and maintain their scale whenever/if they desire to do so. The scaling support consists of below actions:

1. Continued **advocacy** plays a significant role in advancing all sectors as scaling efforts vary between sectors due to uneven regulatory environments (most notable in games, immersive media, and VFX).
2. The scaling efforts also need **talent development programs**, which can be achieved through high schools and PSIs collaboration, introductions between funnel participants, and building on existing Workforce Action Plan (see Section 5.2).
3. The scaling efforts requires **placemaking** to attract and retain talent.
4. On-demand **access to subject-specific mentors** (and similar services) will help keep companies at the leading edge. Therefore, participants at this stage are encouraged to become mentors for entry-activities.

**Objective(s):** The objectives include establishing strong roots for companies in Calgary, creating sustainable company growth and eventually economic growth for Calgary.

<b>Immediate</b>	<ul style="list-style-type: none"> <li>▪ Design and execute incubation program for existing creative teams</li> <li>▪ Support IP development and scalability for existing creative teams</li> <li>▪ Conduct entry activities to identify next cohort of incubatees</li> </ul>
<b>Medium term</b>	<ul style="list-style-type: none"> <li>▪ Support market access and introduction to informed investors</li> <li>▪ Evaluate, revise, and deliver incubation program</li> </ul>
<b>Long term</b>	<ul style="list-style-type: none"> <li>▪ Facilitate industry connections and strategic partnerships</li> <li>▪ Advocate for incentives that support scalability strategies and business sustainability</li> </ul>

### 5.2.3 Creating and Developing the Infrastructure

As Section 3 details, there is a need to further develop the available infrastructure in Calgary’s Creative Economy. At the same time, it is important to note that (other than linear media production) infrastructure is not the key requirement for the sector. It is likely that sufficient infrastructure (i.e., soundstages) exists to sustain the current and envisioned levels of linear media production.

As such, in the context of this strategy, infrastructure is a secondary, if still important, element. The overall goal is to create an environment where being on the leading edge is a given, while also developing the city’s reputation as a place where creative events occur. These investments can also help to enable smaller companies (which are most common in Calgary) to collaboratively work on and/or create larger projects (e.g., by integrating workflows via cloud technology).

To that end, it is recommended that CED and its partners explore both general and sector-specific infrastructure upgrades. Sector-specific infrastructure investments would include:

- **Linear Media:** Investing in virtual production studios that can be made accessible to a variety of established and emerging filmmakers/producers.
- **Animation/VFX:** Developing and/or providing access to shared cloud-based workflow pipelines to enable more collaboration between smaller companies.
- **Games:** Creating lower-cost access to facilities like advanced motion capture studios that are commonly only available to larger companies.
- **Esports:** Development of a mid-sized dedicated esports arena that could host regional tournaments -- and can also act as a training ground for esports-related broadcasting endeavours (e.g., in partnership with Bow Valley College).
- **Immersive Media:** A dedicated exhibition space for emerging and established immersive media companies based in Calgary to launch and/or showcase their products. Such a space could also be used to attract international immersive media exhibits.

Some investments in infrastructure should be more general. For the IP funnel to operate optimally, it would be housed within a dedicated creative hub (in which the sector-specific infrastructure could also be located). This hub would provide a space for incubation, game/animation jams, master class, and other in-person programming needed to make the IP funnel operate most efficiently. The hub would also help to offset rising rental costs for emerging entrepreneurs --and be accessible to anyone participating in the IP funnel.

Finally, it is crucial that any investment made in infrastructure be focused on long-term value. The Creative Economy – and the technology that powers it –evolves rapidly. As such, spaces (like the hub) should be flexible and updated on a regular basis.

<b>Immediate</b>	<ul style="list-style-type: none"> <li>▪ Identify non-specific infrastructure that can be activated</li> <li>▪ Identify space for specific infrastructure</li> </ul>
<b>Medium term</b>	<ul style="list-style-type: none"> <li>▪ Launch the Creative Hub</li> <li>▪ Design the Esports arena and the Immersive exhibition space</li> </ul>
<b>Long term</b>	<ul style="list-style-type: none"> <li>▪ Develop a state-of-art Virtual production facility and Motion capture studio</li> <li>▪ Upgrade and update infrastructure</li> </ul>

## 6. Implementation Plan

### 6.1 Roles

As outlined in the Problem Statement and Strategy Rationale, the success of the Creative Economy Strategy relies on strategic partnerships across the Creative Economy, from industry to training institutions to government agencies. This collaborative effort allows every partner to play to its own strengths while building a cohesive strategy.

Organizations	Roles
<b>CED</b>	<ul style="list-style-type: none"> <li>▪ Stewards of the Strategy: building relationships and partnerships to successfully deliver and implement the Strategy.</li> <li>▪ Conduit and connector: catalyzing business development through IP development and scaling, stimulating opportunities and networking.</li> </ul>
<b>Training ecosystem</b> <ul style="list-style-type: none"> <li>▪ Post-secondary Institutions</li> <li>▪ Professional development organizations</li> <li>▪ High schools</li> </ul>	<ul style="list-style-type: none"> <li>▪ Guarantor of the relevance of training pipeline: designing and delivering programs aligned with industry needs.</li> <li>▪ Industry promoter: developing an appetite for a career in the creative economy and facilitating connections with the industry.</li> <li>▪ Facilitator of equity, diversity and inclusion: ensuring that professional development in the Creative Economy remains accessible.</li> </ul>
<b>Industry</b> <ul style="list-style-type: none"> <li>▪ Industry associations</li> <li>▪ Creative Economy businesses</li> </ul>	<ul style="list-style-type: none"> <li>▪ Advisor: communicating evolving needs, share inputs on the design of support programs, training programs and industry-specific facilities.</li> <li>▪ Leaders and mentors: accompanying entrepreneurs, stimulating the interest of graduates and newcomers, showing a pathway to success.</li> <li>▪ Advocate: representing the interest of the Creative Economy, identifying avenues for improvement and solutions.</li> <li>▪ Facilitator of equity, diversity and inclusion: ensuring a safe environment and accessible careers in the Creative Economy.</li> </ul>
<b>Innovation ecosystem</b> <ul style="list-style-type: none"> <li>▪ Platform Calgary</li> <li>▪ Startup Calgary</li> <li>▪ Innovate Calgary</li> </ul>	<ul style="list-style-type: none"> <li>▪ Innovation catalyst: encouraging and facilitating startup launches, research and development.</li> <li>▪ Educator and promoter: shining a light on the creative industries, educating investors and decision-makers.</li> </ul>
<b>Municipal departments and business units</b> <ul style="list-style-type: none"> <li>▪ Community Services</li> <li>▪ Planning and Development Services</li> </ul>	<ul style="list-style-type: none"> <li>▪ Responsible for a business-friendly environment: reviewing by-laws and policies and adapting them when necessary.</li> <li>▪ Facility manager: updating and upgrading public facilities, supporting industry-specific infrastructure investments.</li> <li>▪ Strategy monitor and champion: ensuring the alignment of the Creative Economy strategy with municipal objectives and providing support where required.</li> </ul>
<b>Provincial and federal agencies</b>	<ul style="list-style-type: none"> <li>▪ Responsible for a business-friendly environment: reviewing and adapting policies and incentives.</li> <li>▪ Additional support: providing additional support to amplify municipal efforts.</li> </ul>

## 6.2 Overview of Key Partners and Performance Indicators

### 6.2.1 Immediate Initiatives and Activities

In the **short term**, strategic actions will lay the foundation of future ambitious initiatives. The first phase pertains to the acceleration of existing companies, the generation of new creative teams, the multiplication of education and training opportunities, and the identification of strategic places and spaces. Leading partners are bolded in the table below.

	Pillar	Initiative	Partners	KPIs
IMMEDIATE	Talent	Deliver entrepreneurial training, mentoring and talent acceleration	<b>Training ecosystem</b> <b>Industry and associations</b> CED CGDA	# new creative companies/teams
		Develop and deliver investor education initiatives	<b>CED / OCIF</b> Platform Calgary Family Foundations Industry and associations	# investors workshops # deals
		Establish clear line of communications from industry to training ecosystem	<b>CED</b> Industry and associations Training ecosystem	# industry/training ecosystem touchpoints Workforce retention
	IP	Design and execute incubation program for existing creative teams	<b>Platform Calgary</b> Industry and associations	# investable projects
		Support IP development and scalability for existing creative teams	<b>CED</b> Industry and associations CGDA Innovate Calgary Platform Calgary	# scalable IP-based companies
		Conduct entry activities to identify next cohorts	<b>Training ecosystem</b> Industry and associations Grassroot organizations	# of participants # of creative teams formed # of applicants to IP funnel \$ invested in Calgary IP
	Infrastructure	Map out non-specific infrastructure that can be activated	<b>Calgary Planning and Development</b> Community Services and BIA Industry and associations Calgary Arts Development Authority Calgary Real Estate Board Tourism Calgary	# events
		Map out space for specific infrastructure	<b>Calgary Planning and Development</b> Community Services and BIA Industry and associations Calgary Arts Development Authority Calgary Real Estate Board Tourism Calgary	

To operationalize these initial priorities, Nordicity and CED identified **strategic activities** to kick start the short-term initiatives. These activities offer concrete first steps into the implementation of the Creative Economy Strategy.

The immediate activities primarily focus on gathering strategic partners and collecting perspectives and data to inform the actual program design. They each also target several specific strategic initiatives.

### **Immediate Activity 1: Identification of Viable Ideas and Teams**

Strategic initiatives targeted:

- *Conduct entry activities to identify next cohorts.*
- *Establish clear line of communications from industry to training ecosystem.*

#### **1. Organize a roundtable with sector partners to gather information on:**

- Existing entry activities and similar efforts led by partners or community.
- Resources, capacities, and desire of partners to participate in entry activities development and administration.
- Potential events and activations.
- How to identify high-potential projects.
- Gaps in knowledge and industry intelligence.
- Gaps in knowledge sharing and institution/industry communications.

As grassroots and student events are central to entry activities, roundtable participants should include post-secondary institutions (e.g., SAIT, Bow Valley College) and community associations (CGDA for video games, Quickdraw Animation Society for animation, etc.)

#### **2. Identify and connect with industry leaders to:**

- Bridge knowledge gap when needed.
- Vet selection criteria and outcome metrics used to identify viable projects.
- Gauge interest in further involvement (mentorship, coaching, talks, etc.)

### **Immediate Activity 2: Incubation Activation and Program Design**

Strategic initiatives targeted:

- *Design and execute incubation program for existing creative teams.*
- *Support IP development and scalability for existing creative teams.*
- *Develop and deliver investor education initiatives.*

#### **1. Organize a roundtable with sector partners to gather information on:**

- Resources, capacities, and desire of partners to participate in program development and administration.
- Existing programs that could be refined to fit within this IP funnel approach.



- Identifying activities and support needed throughout the incubation period.
  - Developing launch/graduation and for participating teams.
2. **Identify and connect with local investors to better understand their existing familiarity with the creative economy.**
  3. **Collaborate with independent third parties to design sector-specific incubation program(s).**
    - Define inputs: creative teams, development stage of project and selection criteria.
    - Define activities and design program: mentorship and coaching, learning opportunities, reporting requirement, etc.
    - Define output: for each core creative industry, development stage and graduation criteria.
    - Model operations and set performance metrics.

While these activities are critical to the successful and smooth launching of the strategy, additional measures should be taken in the short term to cover all strategic initiatives. These activities only describe the more immediate steps that should be taken to operationalize the Creative Economy Strategy.

## 6.2.2 Medium Term and Long Term Initiatives

Building on this initial phase, strategic actions in the **medium-term** center on ramping up efforts across the three pillars. Increasing market access and knowledge sharing, reinforcing the talent pipeline and developing specific infrastructure will lead to greater production volume, investment and tourism activity.

	Pillar	Initiative	Partners	KPIs
MEIDUM TERM	Talent	Ramp up creative and technical talent development	<b>Training ecosystem</b> CED Industry and associations	\$ service production volume # full-time equivalents
		Facilitate knowledge-sharing and dissemination of market intelligence	<b>CED</b>	# industry panel and workshops
	IP	Support market access and introduction to informed investors	<b>CED</b>	# trade market participations # investor pitches \$ invested in Calgary IP
		Evaluate, revise, and deliver incubation program	<b>Platform Calgary</b> CED Plug and Play Industry and associations	# scalable IP-based companies \$ invested in Calgary IP
	Infrastructure	Launch the Creative Hub	<b>CED</b> Calgary Arts Development Authority Industry and associations	Tenancy rate # industry events # public events # visitors
		Design the Esports arena and the Immersive exhibition space	<b>CED</b> Calgary Arts Development Authority Industry and associations	# events # visitors (AB and non-AB)

**Long-term** initiatives aim to cement efforts carried out in the previous phases. Scalable companies are accompanied in their successful journey, incubation and training initiatives are adjusted and enhanced, infrastructure is updated and upgraded.

	Pillar	Initiative	Partners	KPIs
LONG TERM	Talent	Continuously assess industry needs and align talent pipeline	<b>Training ecosystem</b> CED Industry and associations	# creative programs graduates Workforce retention
		Advocate for changes to the regulatory framework to support talent attraction and retention	<b>Industry and associations</b> CED	Workforce retention # newcomers in the industries
	IP	Facilitate industry connections and strategic partnerships	<b>CED</b>	# partnerships # creative economy events
		Advocate for incentives that support scalability strategies and business sustainability	<b>Industry and associations</b> CED	\$ creative economy investments # successful IP-based companies
	Infrastructure	Develop a state-of-art Virtual production facility and Motion capture studio	<b>CED</b> Calgary Planning and Development Industry and associations	Usage rate (Calgary businesses) Usage rate (service production)
		Upgrade and update infrastructure	<b>CED</b> Calgary Planning and Development Industry and associations	Tenancy rate # industry events # public events # visitors

## 6.3 Estimated Output

As described in section 6.2.2 and summarized in section 7.1, the IP Development plan will guide the transition of startups and mature companies from service production IP origin, focusing on the core creative industries. The charts below show the potential output produced by the IP funnel process.

To understand the estimated output of the IP funnel, let's follow the journey of a successful creative team from the first cohort of this funnel.

Through game jams, community events and grassroots workshops, Calgary-based creative teams will test the hypotheses of their concept, and explore the potential of turning their idea into a product.



For every 50 potentially viable IP concepts found in entry activities in year 1, we assume that 40% of the concepts will be promising enough to proceed to the incubator.<sup>39</sup> At this stage, creative teams are comprised of one to two individuals, for a total of 60 individuals ready to take their project to the next phase. Unsuccessful creative teams will gain experience through entry activities and will be able to revisit these activities in the following years.

The 20 creative teams will go through an incubation program to develop a prototype relevant to their industry (e.g., vertical slice, script, etc.). These teams will receive about \$75,000 to develop their concept.



Among the IP concepts that made it to Incubation stage, about half of the participating companies will succeed and deliver a solid prototype. By the time they become investable targets, companies will grow to count five employees on average: the IP funnel can then further support 55 workers. Companies and individuals that do not reach the investment phase exit the IP-funnel with valuable experience, knowledge and a solid network. Entrepreneurs can pursue their venture out of the funnel or find an opportunity with existing local companies.

The Investment and Launch phase will allow companies to attract an estimated average of \$500,000. Industry research shows that only 17% of the incubated concepts will likely make it through this stage.<sup>40</sup> As such, one company will emerge with an innovative and marketable concept, ready to scale beyond this phase.

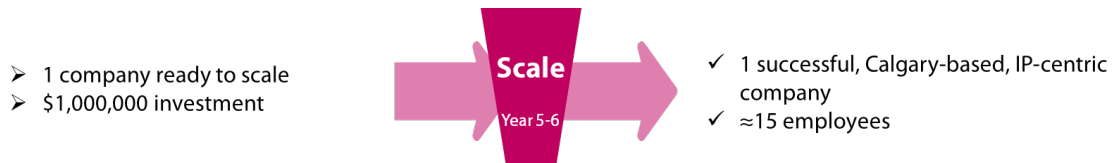
<sup>39</sup> <https://www.codeventures.com/startup-failure>

<sup>40</sup> 83% of mobile games fail in the three years after launch. <https://www.gamesindustry.biz/report-83-of-mobile-games-fail-in-the-three-years-after-launch>



Again, entrepreneurs and workers who exit the funnel at that stage have gained significant experience and industry knowledge that they will be able to sell on the job market or to reuse in a new venture.

Finally, the last step of the IP funnel supports scalability and sustainability, transforming this promising company into a flourishing business attracting investment and recording employment growth.



If successful throughout this last phase<sup>41</sup>, this IP-focused company will pave the way for other Calgary-based creative business.

As such, the impact of the IP funnel for cohort 1 could be summarized as follows:

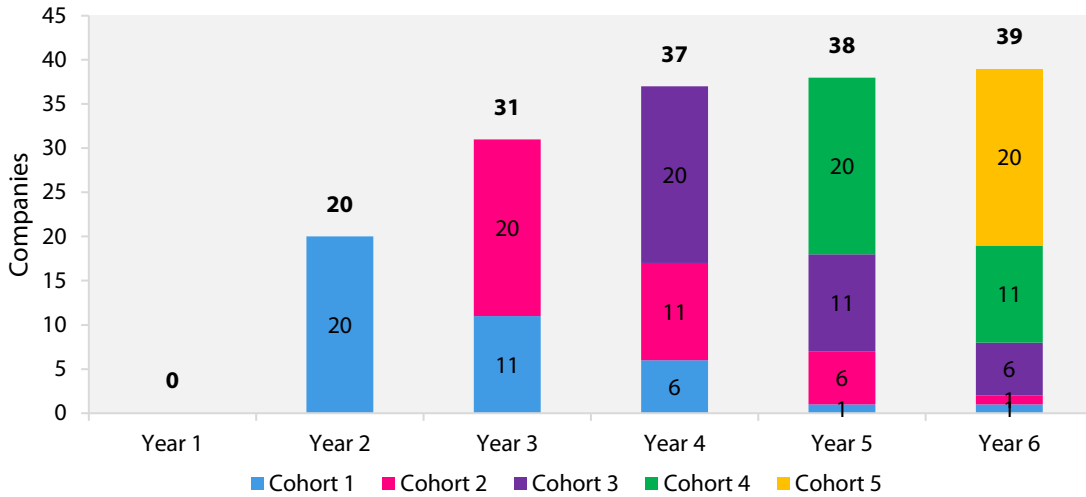
	Entry Activities	Incubation	Investment and Launch		Scale and Sustain	
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Companies	0	20	11	6	1	1
FTEs	0	60	55	30	15	15
Trained individuals leaving the funnel	40	27	25	25	0	0
Investment	0	\$1,500,000	\$2,000,000	\$2,500,000	\$500,000	\$500,000

Assuming a new IP cycle starting every year and successive “cohorts” (although companies that are ready and promising can join the funnel without having been through the previous steps), we can estimate the impact of this program by Year 6. The estimate presented below also assumes no correction in the number of participating companies or investment raised, which are likely to evolve as the Creative Economy in Calgary becomes more attractive and the programs are refined to reflect this changing reality.

The first figure shows the number of companies supported through the IP funnel every year. In Year 6, 39 IP-based companies are receiving support from the various programs of this IP-funnel, including two scalable companies from “cohorts” 1 and 2.

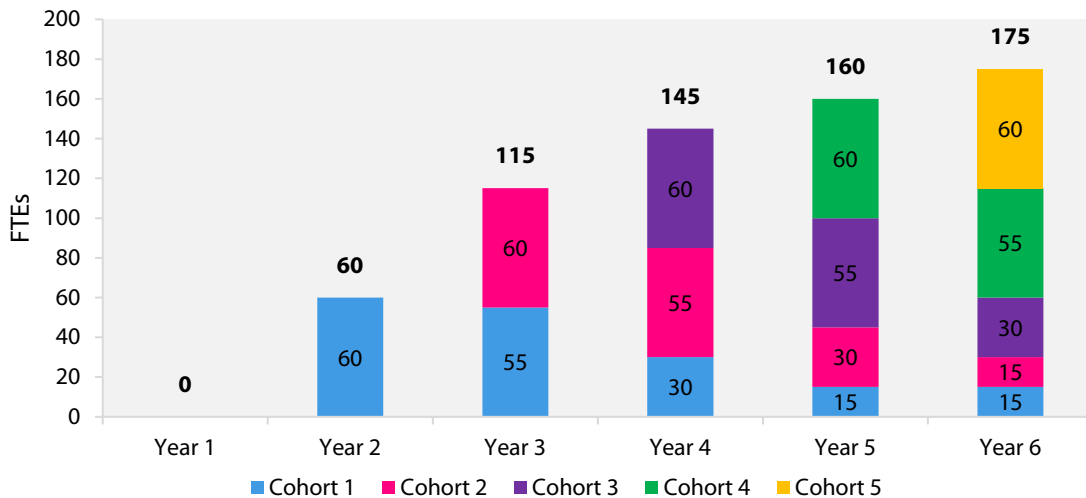
<sup>41</sup> Approximately 35% Startups Fail Before Series B. <https://www.codeventures.com/startup-failure>

**Figure 5: Companies supported by the IP funnel**



In Year 6, these 39 creative companies will support 175 full-time equivalents. The model assumes that full-time employees will only be supported in Incubation, Investment & Launch and Scale & Sustain stages.

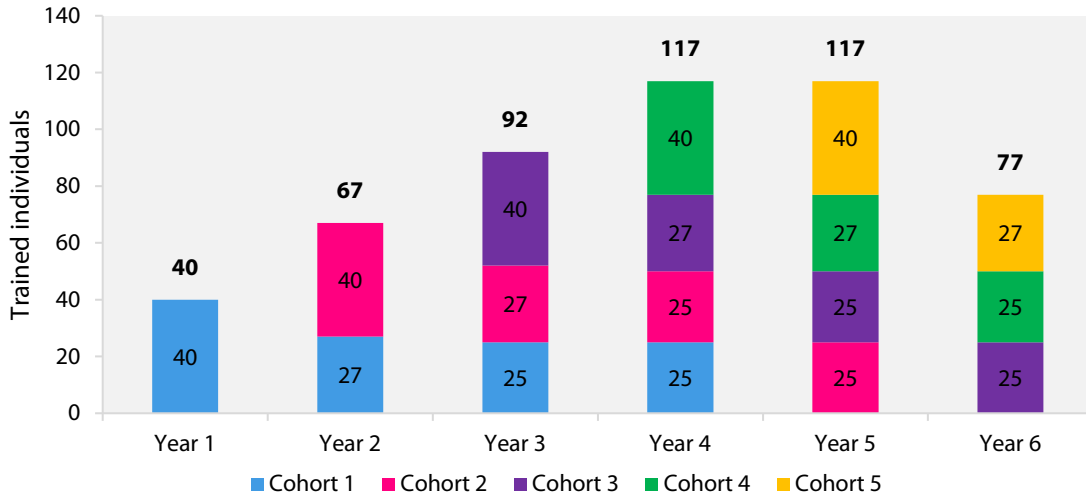
**Figure 6: FTEs supported by the IP funnel**



It is worth noting that by Year 6, over 500 individuals will have gained significant experience from participating in any of the phases of the IP funnel. While they exit the funnel, they can find an opportunity within the local industry, continue their venture outside of the funnel or join a company continuing its journey through the funnel. As such, this individual can be added to some extent (i.e., they are not leaving the industry or province) to the FTEs directly supported by the funnel.

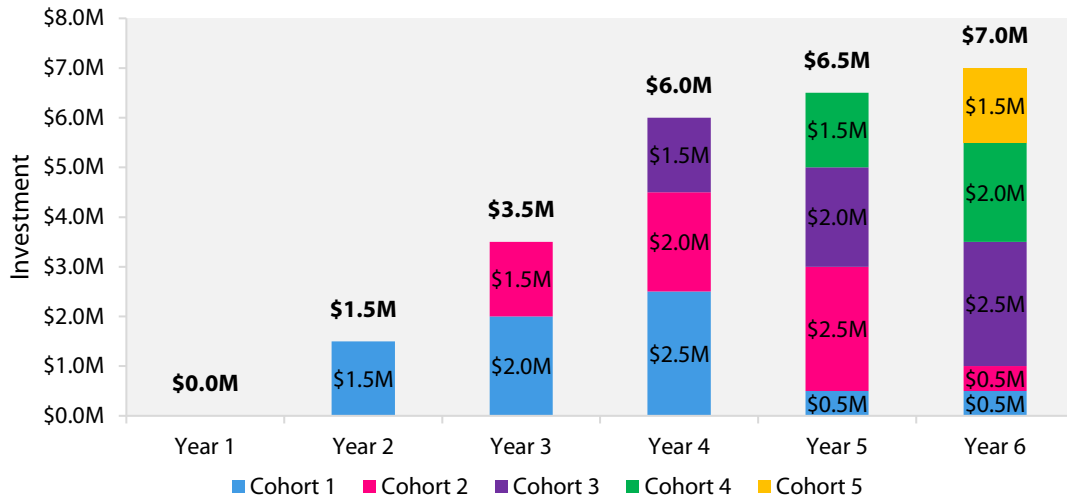
Although certain companies may not reach the final stages of commercial success, the journey through the funnel process provides intrinsic value. These companies will have honed their practices, gained business knowledge and increased competitiveness that can be vital for future endeavors. They would also benefit from the environment where mentorship and networking provide a foundation for future growth.

**Figure 7: Trained individuals leaving the IP funnel each year**



Finally, this figure illustrates the investment raised by funneled companies each year. By Year 6, companies from the IP funnel will have raised an estimated \$24.5M.

**Figure 8: Estimated investment raised by IP funnel companies each year**




### IP Funnel – Estimated outputs – Year 6



39 IP-focused companies  
(incl. 2 scalable)



175 FTEs  
(and 500+ individuals trained through Y1-6)



\$24.5M raised through Year 1 to 6

In addition to the direct impact of the IP Funnel, the additional efforts carried out through the other initiatives of this Strategy will contribute to broader indicators that align with key objectives at the municipal level.



## 7. Appendix

### 7.1 Summary of barriers and opportunities, by core industry

	Barriers	Opportunities
Film & TV	<ul style="list-style-type: none"> <li>▪ Economic growth mostly from below-the-line work, not aiding local IP development.</li> <li>▪ Calgary's film and TV sector in early stages of IP development with insufficient support for original content.</li> <li>▪ Producers struggle to retain downstream revenue rights.</li> <li>▪ Lack of regional incentives for diverse shooting locations.</li> <li>▪ Post-production incentives not competitive; industry still developing.</li> <li>▪ Talent shortage, especially skilled workers, affecting sustainable growth.</li> </ul>	<ul style="list-style-type: none"> <li>▪ CED can provide longer window for location scouting to attract more productions.</li> <li>▪ Stable and reliable tax credit system is key.</li> <li>▪ Initiatives to enable domestic producers to develop IP.</li> <li>▪ Recognizing unscripted production in government support systems.</li> <li>▪ Potential for pre-production and post-production incentives.</li> <li>▪ Streamlining cloud-based solutions and virtual production.</li> <li>▪ Awareness for greener production practices.</li> <li>▪ PSIs taking a leadership role in industry training and development.</li> </ul>
Animation & VFX	<ul style="list-style-type: none"> <li>▪ Non-competitive local incentives hindering foreign and local production attraction.</li> <li>▪ Limited market for entertainment and non-entertainment.</li> <li>▪ Challenges in financing and developing original Animation IP.</li> <li>▪ Difficulty in securing investment for technical IP research and development.</li> <li>▪ Fee-for-service work hindering entrepreneurial mindset development.</li> <li>▪ Lack of understanding among decision-makers about post-production, VFX, and Animation.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Leveraging Alberta's unique stories for original content creation.</li> <li>▪ Innovation ecosystem conducive to new industry solutions.</li> <li>▪ Robust film and TV pipeline as a comprehensive production hub.</li> <li>▪ Government and industry alignment on goals.</li> <li>▪ Learning and experimenting with nascent creative industries.</li> <li>▪ Infrastructure investment for virtual production space.</li> <li>▪ Enhancing connectivity within and across creative economy sectors.</li> </ul>
Games	<ul style="list-style-type: none"> <li>▪ Lack of competitive tax incentives for video game companies.</li> <li>▪ Small business nature of the industry limits advantage-taking of Alberta's tax benefits.</li> <li>▪ Need for marketing and audience development support specific to games.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Ecosystem development to scale up micro-sized companies.</li> <li>▪ Tapping into private investment sources, including Angel networks.</li> <li>▪ Leveraging Unity's presence to enhance team skill sets.</li> <li>▪ Offering low- or no-cost office space to startups to reduce operating costs.</li> </ul>



	Barriers	Opportunities
	<ul style="list-style-type: none"> <li>Industry shifting towards a discovery-based digital economy.</li> </ul>	
Esports	<ul style="list-style-type: none"> <li>Industry's uncertain nature makes investment planning and risk management challenging.</li> <li>Volatility of esports titles and events hinders industry appeal.</li> </ul>	<ul style="list-style-type: none"> <li>Partnerships with major sports franchises for sports-based esports growth.</li> <li>Utilizing entrepreneurship and business resources for industry development.</li> <li>Esports as a unique attraction for tourism and city programming.</li> <li>Grassroots esports community as a foundation for formal industry presence.</li> </ul>
Immersive Media	<ul style="list-style-type: none"> <li>Difficulty in connecting with federal-level funding opportunities.</li> <li>Lack of community spaces for knowledge sharing among founders.</li> <li>Need for more education on the potential of immersive technologies.</li> <li>Challenges in integrating technology into educational settings.</li> <li>Focus on content creation over tool development in educational programs.</li> </ul>	<ul style="list-style-type: none"> <li>Strong connections with the innovation ecosystem and educational institutions.</li> <li>Existing investment in technology showcasing Calgary's potential.</li> <li>Development of limited infrastructure for location-based immersive experiences.</li> <li>Municipal and provincial support ecosystems bolstering the industry.</li> </ul>

## 7.2 Consulted Parties

### Film and TV

- Joe Media
- Nomadic Pictures
- Propeller Studio
- Pyramid Productions
- Polyscope Productions
- Seven 24 Films

### Animation/VFX

- Jump Studios
- Squid Brain

- Studio Dialog
- Tribal Imaging
- Missing Socks
- Fifteen Pound Pink Productions

#### Immersive Media

- VizWorks
- TracksVR
- Memory Anchor

#### Video Games

- Fortress Games
- Calgary Game Developers Association
- Digital Alberta

#### Esports

- Esports Canada

#### Support ecosystem

- The A100
- Arts Commons
- Tourism Calgary
- CED
- CED – Digital Media and Entertainment
- CED – Business Development and Programming
- Opportunity Calgary Investment Fund
- Chinook Blast
- Office of the Mayor of Calgary
- Circuit Stream
- AUArts
- Bow Valley College's Centre for Entertainment Arts



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