



# Innovation Yukon

Bringing Northern Ingenuity  
to the World

2023-2028

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## Premier's Message



As the nature of industry and society as a whole changes, there is always a need for innovation. Being able to adapt and improve is key to staying competitive and remaining relevant in a constantly evolving world. We are preparing for unprecedented opportunities in the Yukon as we present this five-year innovation strategy.

“Innovation Yukon” will establish how our government supports and enables innovative practices. This strategy was developed following extensive engagement with creators and stakeholders representing a wide variety of industries, including a commission of notable innovators from our territory and around the globe.

In addition to the work of the Innovation Commission, over 50 stakeholders from 13 sectors participated in focus groups and an online survey was published.

Thank you to everyone who contributed. Together, we will drive innovation in the Yukon and create a more resilient and diversified economy for future generations. This five-year strategy will be the light that guides our first steps down that path.

Sincerely,

A handwritten signature in black ink that reads "Ranj Pillai". The signature is written in a cursive, flowing style.

**Ranj Pillai**

Premier and Minister of Economic Development  
Government of Yukon

# Executive Summary





The Yukon has long been a place of innovation, creativity and the pursuit of solutions and new ways of doing things. Yukon First Nations have been leaders in innovation; including world-leading modern land claims processes and self-government agreements.

Globally, the rate of innovation and technological development has rapidly accelerated in the last 25 years. With the increasing societal dependence on new technologies and subsequent opportunities for entrepreneurs to commercialize their innovations, Yukoners have come together to collaborate and provide necessary resources in the Yukon.

The Yukon boasts an innovation ecosystem with unique strengths and opportunities including Indigenous governance, rural and place-based entrepreneurship, arctic research and the exceptional lifestyle and community of the territory. The Yukon's economy has rebounded from the COVID-19 economic shock faster than any other Canadian jurisdiction, with among the lowest unemployment rates and highest GDP growth in the country.

Building upon these assets, the Government of Yukon sought out feedback and input from the public, First Nations, industry, and an Innovation Commission, as well as conducting a comprehensive review of the Department of Economic Development's Technology and Innovation Branch.

To be reflective of the values expressed during outreach, implementation of this strategy will respect the following principles: inclusivity, agility, collaboration, creativity, competitiveness and community.

## OUR VISION FOR THE FUTURE

The Yukon is at the forefront of technology adoption and innovation, connected to global markets and attracting interest in our uniquely northern way of life. Here, our traditional knowledge elevates new ideas, helping entrepreneurs flourish on the world stage. We are collaborative thought leaders, bringing sustainable progress and economic prosperity to our people and communities.

Five strategic objectives will strengthen and expand the Yukon's innovation ecosystem:



Twenty-four actions have been identified to achieve these objectives over the next five-year period and include: promoting innovation and raising the profile of technological advancements both within the territory and on a global scale, supporting market development and investment, developing and attracting talented workers and entrepreneurs and providing the resources needed by the innovation ecosystem.

Review and assessment of the strategy's progress and achievements will be made as part of an adaptive management approach and will contribute to future actions to strengthen and diversify the Yukon's economy.

# A Culture of Innovation





## First Nations Innovation and Governance

The Yukon's innovation journey started thousands of years ago as Yukon First Nations learned, lived and excelled at meeting the challenges of the unique environment of the territory. First Nations continue to use their extensive knowledge and values to innovate and develop new and improved ways of doing things. Long before digital technology became a factor of daily life, Yukoners used innovation to improve lives.

In the mid-1960's, Edward Elijah Smith ("Tä Me" in Southern Tutchone) and others began to organize to support First Nations rights and responded emphatically to the release of *Statement of the Government of Canada on Indian Policy, 1969* (the "White Paper"). Upon meeting in Ottawa in 1973, Smith and a delegation of Yukon Chiefs presented the document *Together Today for our Children Tomorrow: A Statement of Grievances and an Approach to Settlement by the Yukon Indian People*.

Smith's actions initiated decades of negotiations resulting in the 1993 signing of the Umbrella Final Agreement, laying the groundwork for modern-day treaties with eleven of the Yukon's fourteen First Nations and setting the stage for self-government. The Yukon land claims process is one of the most important societal innovations in recent Canadian history and has transformed Yukon society in profound ways.



## The Yukon's Innovation Ecosystem

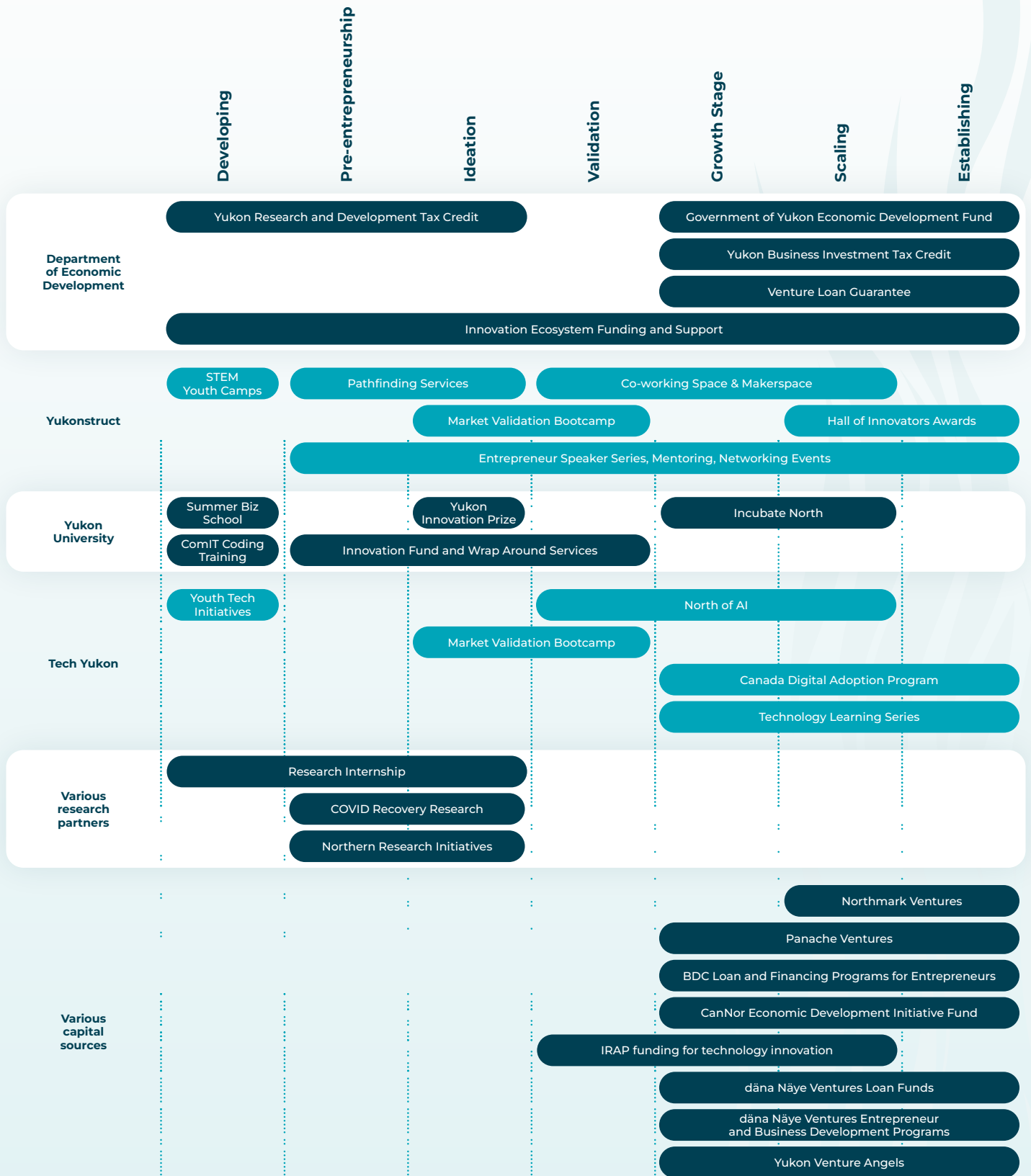
With the rapid evolution of technology over the last 20 years, Yukoners have been inventing, innovating, developing and growing new businesses, products and services. By 2012, the Yukon had a high concentration of early innovators working in isolation and had great potential for more investment in the knowledge economy. It became increasingly apparent how important it was to bring these bright minds together for greater collaboration. This challenge caught the attention of Yukoners from both the government and business sectors and started a series of conversations and research on how to best support this developing economy.

The Government of Yukon worked with partner organizations to launch Northlight Innovation in 2018 as a central hub of collaboration for Yukoners in the innovation pipeline. Services were refined and expanded to support the development of new ideas and help grow them into thriving enterprises. From youth innovation camps to support for new businesses and digital adoption, the Yukon now offers assistance to key areas of the innovation ecosystem (Figure 1).

### SPOTLIGHT ON INNOVATION **TWO-EYED SEEING**

In 2021, the Government of Yukon entered into a partnership with Yukon University and University of Alberta North to develop a Two-Eyed Seeing Research Program, including the establishment of a Research Chair in Indigenous Knowledge at Yukon University. This program will create research capacity in the Yukon while providing students, researchers and land practitioners with Indigenous advisory support and increased collaboration. The development of curriculum and research that applies the two-eyed seeing approach, that is viewing the world through an Indigenous lens with one eye and a Western lens with the other, will help bridge knowledge systems, strengthening expertise, research and opportunities in the territory.

Figure 1: Available services to support the Yukon’s innovators



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# Defining the Yukon's Vision





## Global Trends

The Fourth Industrial Revolution represents a fundamental shift in the way we live and work. The speed of current breakthroughs is unprecedented, advancing at an exponential rather than linear pace.<sup>1</sup> Startup companies now create the vast majority of all new jobs in the United States.<sup>2</sup> Technology is no longer an industry; rather it is the future of every industry, of every sector, both public and private. Not only will technology create new startup opportunities, it is the driving force of making traditional sectors more efficient, safe and profitable.<sup>3</sup> The World Economic Forum estimates that 70% of new value created globally over the next ten years will be based on digital business models. In 2023, more than half of global GDP will be driven by “digitally transformed” enterprises.<sup>4</sup> Canada has recognized that it is critical to develop and attract top talent that will establish and invigorate businesses and enable them to thrive in this highly competitive landscape through a Tech Talent Strategy<sup>5</sup>.

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<sup>1</sup> World Economic Forum. 2016. *The Fourth Industrial Revolution: what it means, how to respond*. (<https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/>)

<sup>2</sup> Kane, Tim. 2010. *The Importance of Startups in Job Creation and Job Destruction*. Ewing Mario Kauffman Foundation. ([https://www.kauffman.org/wp-content/uploads/2019/12/firm\\_formation\\_importance\\_of\\_startups.pdf](https://www.kauffman.org/wp-content/uploads/2019/12/firm_formation_importance_of_startups.pdf))

<sup>3</sup> Alberta Innovation Capital Working Group. 2020. *Report and Recommendation to the Minister*.

<sup>4</sup> Startup Genome. 2022. *The Global Startup Ecosystem Report 2022*.

<sup>5</sup> Immigration, Refugees and Citizenship Canada. 2023. (<https://www.canada.ca/en/immigration-refugees-citizenship/news/2023/06/canadas-tech-talent-strategy.html>)

The COVID-19 pandemic accelerated both the growth and importance of startups as companies rushed to digitize and sought virtual solutions to physical problems. These developments will largely be permanent, with businesses utilizing their newfound reach and efficiency and further benefiting from the recent and rapid emergence of artificial intelligence (A.I.)

From renewable energy, reduction in the use of fossil fuels, improved battery technology and efficiency, tech innovations will play a significant role in addressing the causes and impacts of global climate change.

Innovation and entrepreneurship hold great potential to bolster economic diversification of the Yukon's economy, increasing opportunities to develop highly skilled workers and value-added businesses. "Economic diversification is the process of shifting an economy away from a single income source toward multiple sources from a growing range of sectors and markets. Traditionally, it has been applied as a strategy to encourage positive economic growth and development"<sup>1</sup>. While the Government of Yukon and integral community organizations have developed a strong foundation for the Yukon's innovation ecosystem over the past ten years, innovation, by its very nature, is constantly evolving. The Yukon needs to strive to keep step with other jurisdictions, adapting to changing priorities, needs and market conditions.

## Foundational Strengths

The combination of the foundational strengths set out below are the Yukon's competitive advantage, differentiating it from other jurisdictions seeking to support and grow their innovation ecosystems. As the Canadian territory with the highest gross domestic product (GDP)<sup>2</sup>, the Yukon has the opportunity to further expand and showcase the many benefits of living, working and innovating in Canada's north.

### FIRST NATIONS

Yukon First Nations' ground-breaking land claim and self-government process has led to modern treaties and governance within the territory and has acted as a model for Indigenous communities around the world.

The Yukon's fourteen First Nations bring exceptional knowledge and perspectives to innovative endeavours on both Settlement Land and broader Traditional Territories. Yukon First Nations and transboundary First Nations are an integral partner in business and innovation, helping to drive research, development and entrepreneurship in the Yukon.

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<sup>1</sup> United Nations Framework Convention on Climate Change. (<https://unfccc.int/topics/resilience/resources/economic-diversification>)

<sup>2</sup> Howlett, Rebekah et al. 2022. Gross domestic product, 2021: An in-depth look at provincial and territorial economies.

The Umbrella Final Agreement between Yukon First Nations, Canada and the Yukon brought about the Yukon Environmental and Socio-economic Assessment Act (YESAA), a further example of innovative, progressive governance. YESAA provides regulatory certainty for industry where the project requires an assessment as per regulation, a permit or authorization, a transfer of land or utilizes federal funding. YESAA serves to protect and promote the well-being of Yukon First Nations throughout the assessment process.

## **RURAL AND PLACE-BASED ENTREPRENEURSHIP**

Life in the Yukon's smaller communities presents many unique advantages and challenges. Twenty percent of Yukoners live in communities of less than 2,500 people, with half of those residing in communities of less than 1,000. One of these communities is Mayo, home of The Yukon Soaps Company, an innovative and sustainable business that manufactures products for customers around the world. The creativeness and ingenuity of Yukoners in these communities to solve challenges presents an opportunity to commercialize and export these solutions to other remote, rural and northern communities both within Canada and across the world.

The Yukon's capital of Whitehorse (population 34,467) acts as a hub for the territory's communities, northern British Columbia and parts of the Northwest Territories. As the Yukon's primary urban community, the city provides direct services and resources to rural Yukoners, as well as a local market for businesses and access to the global supply chain.

## **ARCTIC RESEARCH**

Located north of the 60th parallel and spanning to the Arctic Ocean, the Yukon contains five key bioclimatic zones. The southwest corner of the territory, bordering on the state of Alaska, is within the Pacific Maritime zone and is largely glaciated. Traversing through the Boreal forest, where the vast majority of the territory's population resides, the northern half of the territory is within the Subarctic and Arctic zones. The fifth zone can be found throughout the territory in high altitude areas, termed Alpine Tundra.

The variety of environmental conditions in combination with the logistical and academic support systems in place in the Yukon present an increasing number of opportunities for research and monitoring programs. From environmental and climate research, to prototype testing, industrial process innovation and distinctive northern living design, the Yukon is ideally positioned to develop and collaborate with global leaders on cold climate and northern innovation.

## GOVERNANCE

In 2003, the Yukon became the first territory to assume land and resource management responsibilities from the Government of Canada with the enactment of the Yukon Act. Over the last twenty years of devolution, the Government of Yukon has evolved to work collaboratively with the fourteen First Nations in the territory. The Yukon cooperates with Canadian jurisdictions and the Government of Canada to advance national and provincial/territorial interests, including internal and international trade. Canada's shared interest in and priority of fostering innovation provides opportunities for partnership in the advancement of initiatives in the Yukon.

The Yukon provides a unique example of and opportunity for innovation in government processes, policies and materials. The innovative environment and culture in the territory extends across both the private and public sector with both formal and informal avenues for innovators to collaborate with government. The Yukon's leadership in this area has garnered the interest of governments and organizations across the world.



### SPOTLIGHT ON INNOVATION

## YUKON ARCHAEOLOGY NOVEL CAPTURE TECHNOLOGIES

The Government of Yukon is collaborating with the University of Calgary's Digital Archaeology Program in the use of novel digital capture technologies to document and interpret endangered heritage sites. Reality capture technologies, like terrestrial laser scanning and aerial photogrammetry, are used to digitally capture and preserve heritage resources for future generations.

## THE YUKON STORY

As a relatively small jurisdiction with a rapidly growing economy and population, the Yukon's communities are tight-knit with extensive partnerships, collaboration and support to achieve both societal and economic objectives. Domestic migration and international immigration is bringing new ideas, businesses and linkages to markets outside the territory.

The Yukon is home to a public university, Yukon University (YukonU), the only university north of the 60th parallel. While the main campus and Innovation and Entrepreneurship centre are located in Whitehorse, community campuses can be found across the territory. After a long history as a vocational and collegiate institution, in spring 2020 YukonU was officially granted university status, opening up opportunities for the territory and for local and international students to expand research and collaborative initiatives across Canada and the circumpolar world.

The Yukon's closest international neighbours are in Skagway and Haines, Alaska. With only marine or air access to other American ports, Skagway and Haines are close partners with the Yukon, which provides the only road access to the communities. Alaska is the Yukon's largest trading partner, and the ports in Skagway and Haines provide important maritime links to markets in Alaska, other US States and internationally.

The Yukon has critical linkages to the rest of Canada through direct flights to Vancouver, Toronto, Ottawa, Edmonton and Calgary through Air North, Yukon's Airline. Air Canada provides regularly scheduled connections to the rest of Canada while Condor Airlines connects to Europe through seasonal service. The territory's western location provides Yukon businesses with access to Asia and the Pacific Rim for important alliances and market opportunities. The need to deepen relations within the region is a national priority, as identified in Canada's Indo-Pacific Strategy, with strategically funded initiatives to expand and strengthen partnerships and reinforce peace and security.

The Yukon's storied past, exceptional people, incomparable lifestyle potential and supportive and thriving communities continue to present the territory with new opportunities to attract visitors and residents, businesses and investment, and national and international partnerships, leading to shared prosperity and room to grow.



## Vision for Success

The definition of innovation can be different, depending on the context and purpose of its use. The Yukon is committed to the broad application of innovation, to the creation of new or improved products, businesses or processes, social models or service delivery that add value to the territory's economy and/or society as a whole.

The following principles will guide the Government of Yukon's priorities, objectives and actions when advancing the Yukon's innovation ecosystem.

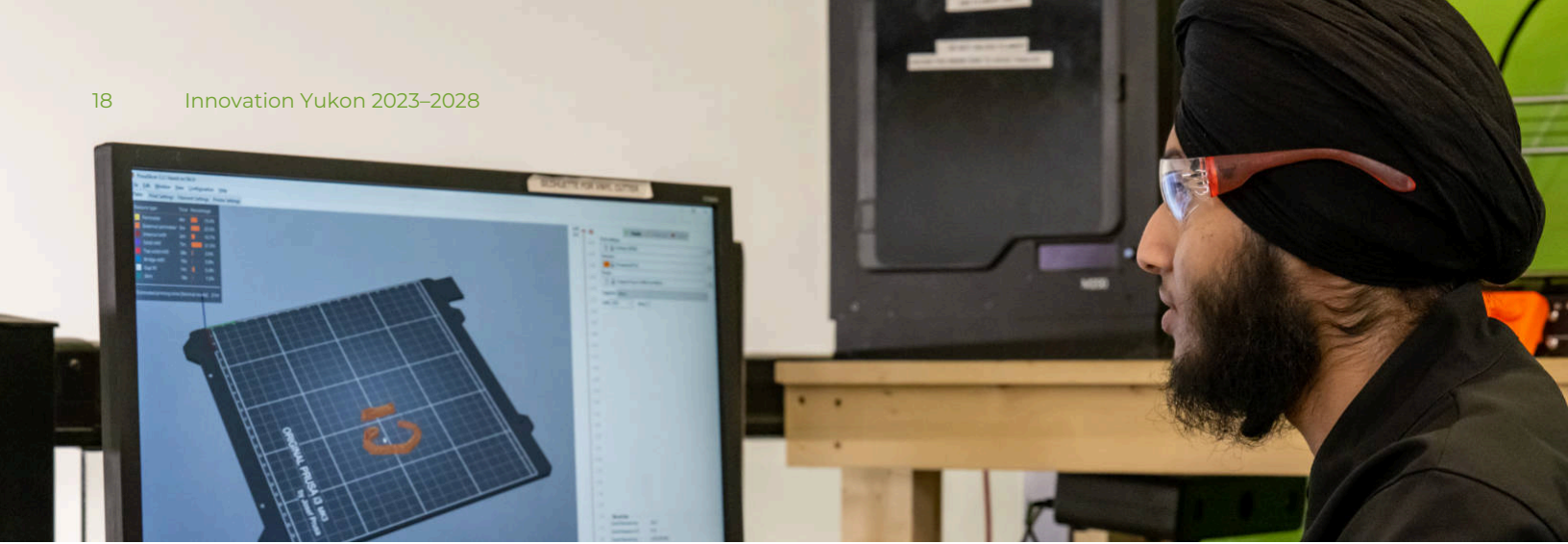
- **Inclusive**  
Grow participation by women, First Nations, youth and other Yukoners who are under-represented in innovation, entrepreneurship and the technology sector.
- **Agile**  
Remain responsive to new trends and technologies while maintaining focus on the long-term prosperity of Yukoners.
- **Collaborative**  
Work together across sectors, communities and organizations to develop skills, supports and opportunities for Yukon entrepreneurs.
- **Creative**  
Encourage all Yukoners to use their unique perspective and experiences to tackle real-world problems and contribute to local, national and global markets.
- **Competitive**  
Yukon businesses and startups are competitive in the achievement of investment capital and on global markets.
- **Local**  
Position Yukoners of any age with the skills and knowledge to develop and support the creation of innovative products and processes, as well as social enterprises that will improve Yukon communities.

## OUR VISION FOR THE FUTURE

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Creating our  
Collective  
Future





## What We Heard

In fall 2020, over 160 industry stakeholders, First Nations and the Yukon public were invited to provide input on defining innovation within the Yukon's context, examining what programs and services the government can invest in to encourage the growth of innovation, what trends are important to Yukon businesses and finding ways to measure success for innovation. Focus groups, an online survey and one-on-one meetings were held to reach a wide range of people and gain their feedback.

A What We Heard Report was released on August 24, 2021.

Some of the key feedback themes included:

- Set a vision for the Yukon with the Yukon;
- Build partners to support strategic goals – set by the community;
- Define what a culture of innovation means or an innovation ecosystem;
- Focus on existing strengths – Yukon is a leader and can be a trendsetter;
- Collaborate, coordinate and communicate;
- Inspire curiosity and ideation;
- Engage Yukoners often;
- Empower the industry and public to lead innovation;
- Make sure whatever the big picture is, that the world knows – local, national, global; and
- Be bold, be creative.

The key themes and input from engagement were used to support the work of the Innovation Commission.

## Innovation Commission

An Innovation Commission was established in August 2021 to provide advice on services, programs and actions to support local entrepreneurs and grow the Yukon's technology and innovation landscape over the coming term of this strategy.

Innovation Commission members were chosen for their experience and interest in innovation, technology and entrepreneurship, both within the Yukon and across the world.

The commission undertook an analysis of existing strengths and weaknesses within the ecosystem and provided advice on opportunities to address gaps and challenges in the current system.

## Economic Development's Technology and Innovation Branch Review

The Technology and Innovation (TI) Branch [formerly Technology and Telecommunications Development Directorate] within the Department of Economic Development was established in 2013 to support the development and enhancement of telecommunications infrastructure in the Yukon. In 2019, the branch was renamed to the TI Branch to provide strategic focus to grow innovation and technology adoption in the territory. The mandate of the branch is to stimulate and diversify the Yukon's economy by supporting technology adoption and innovation.

An independent program review for the TI Branch was completed in December 2020 by an external consultant. The review undertook an assessment of existing programs and services provided and procured by the branch, and made recommendations on how the branch can better serve the technology and innovation ecosystem. In particular, the report recommended the TI Branch work to attract tech talent to the Yukon, support market development and raise the public profile of innovation among youth, businesses and the public.

## Setting our Objectives for the Future

Our commitment to adapting priorities based on feedback, assessment and current and anticipated trends has led to the creation of the following objectives for 2023-2028:



### Foster Awareness

By growing the understanding and appreciation for innovation and technology, including among youth, businesses and the general public, we will lay the foundation for all Yukoners to explore opportunities to implement technology and realize inventive ideas.

### Cultivate Connections

Bringing together local, national and international collaborators and increasing the profile of the Yukon's innovation ecosystem will expand opportunities for Yukoners to develop their ideas and gain financial backing.

### Grow Talent

Skilled and creative Yukoners will drive the innovation ecosystem forward, supported by a talented and knowledgeable workforce.

### Focus Resources

Prioritizing Government of Yukon resources to address current and anticipated ecosystem needs will create modern and reliable support services.

### Increase Market Access

Global market access will allow Yukon entrepreneurs to expand businesses and thrive in local communities.

Driving  
Innovation  
Forward



The Department of Economic Development has identified key actions to advance and diversify the Yukon's economy over the coming five years.

## Foster awareness

- **Establish a dedicated website and social media presence to support the innovation community, share information on local developments, expose the territory to global innovation activities and showcase the Yukon's investment potential.**
  - Collaboration is key to maintaining and expanding our thriving innovation ecosystem. This campaign will provide necessary information for businesses seeking to take the next step while showcasing the exceptional work being done within the territory.
- **Launch an exhibition series to share emerging and future technological innovations to Yukoners through online and in-person demonstrations and presentations.**
  - An exhibition series will serve to showcase technological innovations from within and outside the territory with the broader Yukon ecosystem and public. These demonstrations will provide the opportunity for Yukoners to discover technologies that may serve their businesses, spark ideas for new developments or novel ways to use technology.
- **Equip the Yukon's businesses and workers with fundamental technology skills through programs such as the Canada Digital Adoption Program and labour market development programs.**
  - Enabling Yukoners with fundamental skills in technology will not only align Yukon's businesses with other Canadian jurisdictions, but also support innovation by increasing comfort with new opportunities and the potential expansion of access to national and international markets.
- **Support youth involvement and awareness in the innovation ecosystem through entrepreneurship and technological programs and showcasing their exceptional ideas to the community.**
  - Youth are key to creating future innovative businesses, startups and the next life-changing technology. By exposing students to the fundamental aspects of starting your own business, as well as to opportunities in STEM (science, technology, engineering and mathematics), youth will be able to explore and create their current and future ideas within the Yukon.





## Cultivate connections

- **Showcase the Yukon's research and development, Indigenous innovation and supportive services with Arctic and Circumpolar nations.**
  - The Yukon will engage leaders from circumpolar nations to create opportunities for harmonization and act as a catalyst for innovation, particularly Arctic and Indigenous advancements, by sharing existing technologies, ongoing research and inventive programs that are helping to drive economic growth.
- **Collaborate with government, academic institutions and industry to expand research opportunities within the Yukon.**
  - Research endeavours are key drivers to helping discover gaps and synergies, sparking new ideas and prospective innovation. The Government of Yukon will continue to collaborate with researchers in the territory, including through the Centre for Northern Innovation in Mining, Yukon University and University of Alberta North, and seek out opportunities to attract new applied and fundamental science researchers to the Yukon.
  - The mining industry is a key driver for the Yukon's economy. The Government of Yukon will work collaboratively with Yukon University and the Government of Canada to support research on technological and environmental advancements that will bolster industry sustainability, including the feasibility of using containerized bulk handling in cold climates.
- **Partner with innovation policy experts, such as Startup Genome, to assess the evolution, growth and effectiveness of the Yukon ecosystem and globally profile its plentiful investment and career opportunities.**
  - Innovation policy organizations, such as Startup Genome, are well-known for their research and support of startup ecosystems. Partnering with an expert firm with extensive knowledge of how to benchmark and assess competitiveness and accelerate and drive successful growth will help identify how to increase the Yukon's global investment readiness and the territory's profile in international markets.
- **Promote the Yukon as a jurisdiction with strong and innovative industries at local, national and international conferences and meetings.**
  - By sharing with Canadian and global institutions, organizations and investors both the foundational strengths and plentiful opportunities that are available in the Yukon, we will serve to create relationships and collaboration throughout the public and private sector, generating opportunities to learn and grow from outside experts and promote the Yukon's ecosystem and enterprises.



- **Provide coordination among government and industry bodies to spark collaboration and advancement of innovation in the Yukon’s key industries.**
  - The collision of ideas is an important catalyst for innovation. Collaboration between private and public sector organizations creates a bridge and broadens perspectives. The Government of Yukon will continue to seek opportunities to work collaboratively with industry organizations to meet present and future needs.
- **Convene ecosystem service providers on an annual basis to share information on results being achieved by respective organizations as well as strategy implementation progress.**
  - The Department of Economic Development will continue to work with its partners to deliver the programs and services that support entrepreneurs and innovators in the territory. In order to ensure alignment and coordination of services, representatives of key organizations will come together to maintain open communication and collaboration throughout the implementation of this strategy.





## Grow talent

- **Grow local talent by partnering with sector organizations to provide training in technology, innovation and entrepreneurship.**
  - Specialized education and learning opportunities are key to developing a skilled workforce capable of adapting to and developing new technologies.
  - The Government of Yukon will work in collaboration with ecosystem partners to create and expand educational programs focusing on existing and emerging technologies. Opportunities such as micro-credentials will support career re-training and continuing education and will foster a culture of innovation and life-long learning within the Yukon.
- **Collaborate with the Yukon's educational institutions, including Yukon University, Yukon First Nation Education Directorate and Government of Yukon's Department of Education, to advance in-territory technology education opportunities.**
  - Elementary, secondary and post-secondary technological training is key to creating a career-ready workforce. The inclusion of entrepreneurship and technology curriculum in youth education broadens the perspective of available career opportunities within the territory, while also providing critical skills that will support the launch of their careers.
  - In-territory post-secondary training and education has the potential to retain capable and promising Yukoners by providing the skills necessary to create new businesses or to work within the innovation ecosystem. This may include degree, diploma, certificate or micro-credential programs.
- **Expand economic and social innovation opportunities for Yukon First Nations by partnering with key organizations to offer Indigenous-focused training and investment programs.**
  - The success and prosperity of Yukon First Nations are key to a strong and resilient economy. While the Government of Yukon will seek to support reconciliation through all action items within this strategy, specific partnerships will be pursued with First Nations communities, governments and organizations to provide meaningful opportunities to participate in innovation initiatives. As per the spirit and intent of Chapter 22 of the Umbrella Final Agreement, it is imperative that Yukon First Nations have opportunities to participate in the economy.
  - Long before its recognition as a Canadian territory, First Nations have been significant drivers of the Yukon economy and will continue to be key to a diverse and thriving Yukon economy into the future. The unique perspectives, history, knowledge and culture of Yukon First Nations, in addition to their leadership in self-government, education and health care, create an opportunity to grow and support ground-breaking Indigenous innovation in the Yukon.

- **Implement exchange and/or mentorship programs to support the development of local CEOs and early-stage startup entrepreneurs, building knowledge and resiliency among Yukoners.**
  - The process of starting a business, let alone developing a product or process that doesn't currently exist, can be daunting. With the support of others who have followed similar paths, we can help Yukoners get their inventive new ideas off the ground.
  - By implementing knowledge exchange and mentorship programs, Yukoners will have access to information and experience that will help guide them, potentially acting as a catalyst to develop exciting new innovations.
- **Support businesses in the attraction of talented workers by raising the profile of the Yukon and its many beneficial lifestyle, environmental and economic features.**
  - Skilled and talented workers are necessary for Yukon entrepreneurs to expand their businesses and achieve their goals. The Government of Yukon will raise the profile of the territory through branding and marketing of the unsurpassable experience of living in the Yukon through initiatives such as the Yukon Story. In particular, by highlighting the adventure, opportunity, communities, environment and lifestyle, including to those targeted by Canada's Tech Talent Strategy, we will attract the talented team members our businesses need to thrive.
- **Collaborate across the Government of Yukon to identify housing options to support Yukoners' ability to choose careers in innovation and while attracting and retaining skilled workers and entrepreneurs to the territory.**
  - The Yukon, like much of Canada, is undergoing a shortage of housing along the spectrum of affordability. This shortage has the potential to limit the ability to attract and retain skilled workers and entrepreneurs to the Yukon. We will work within the Government of Yukon to identify if certain housing options should be pursued, such as co-living, co-operative or residency-style accommodations, to support Yukon innovators.





## Increase market access

- **Increase access to private capital by working with local angel networks to develop capacity and become investment ready.**
  - Angel investment networks play a key role in the growth of startups and innovative enterprises in the early-stage, between initial seed capital and larger-scale investments made by venture capitalists. Not only does angel investment facilitate enterprise development, the experience and knowledge of angels are critical to partnership and mentoring within the ecosystem.
  - The Yukon currently has one angel investment network that is in the early stages of development. The Government of Yukon will support capacity development for angel investors and support networks to become investment ready.
- **Continue advocacy efforts with federal counterparts and private sector partners for ongoing improvements to internet services including increased upload speeds and bandwidth, and lower cost.**
  - Over recent years, significant effort has been put in to improving access and reliability of internet across the Yukon through projects such as the Dempster Fibre Line and Fibre-to-the-Home.
  - While these projects continue to improve internet services in the Yukon, reliable and affordable internet is critical to the development of technological innovations. The Government of Yukon will continue to advocate for ongoing improvements, such as the use of low-earth orbit satellite internet, to provide access to areas not covered under traditional services.
- **Promote opportunities, such as Code with Us and Sprint with Us, for innovators to proactively pitch ideas and products to the Government of Yukon.**
  - The rapid rate of change in technology and innovative products and processes can often create a gap between the private and public sectors. The prominence of the Government of Yukon within the territorial market creates a heightened potential to support early uptake of innovative products through procurement, creating financial and reputational value for Yukon innovators.
  - Government departments may not be aware of new products and services available in the Yukon marketplace that would address gaps or create efficiencies in public administration. By leveraging both the exceptional ideas of Yukoners and the significant value of government procurement within the market, we can create benefits for both the private and public sectors.



## Focus resources

- **In collaboration with ecosystem partners, such as Northlight Innovation Hub, provide modern and effective programs, services and resources to Yukon entrepreneurs and innovators.**
  - The Government of Yukon financially supports partners within the broader ecosystem, such as Yukon University's Innovation & Entrepreneurship program, Yukonstruct at Northlight Innovation and Chambers of Commerce to provide a more comprehensive system of supports and funding mechanisms.
  - Technological advancements and changes to global markets require ongoing adaptation of supportive programs to reflect and address the needs of startups and entrepreneurs. The Government of Yukon will work in collaboration with ecosystem partners to provide programming that reflects the needs of Yukon's entrepreneurs and innovators.
- **Explore the creation of appropriate taxation and co-investment incentives to facilitate private investment.**
  - The Yukon Business Investment Tax Credit allows Yukon businesses to issue shares to Yukon investors in exchange for an agreed upon return and an individual tax credit of 25% on the amount invested. This tax credit was last updated in 2020 in order to broaden the eligibility criteria for Yukon businesses.
  - The Government of Yukon will review this existing tax credit and its effectiveness at supporting startups to raise needed capital. This process will identify potential improvement opportunities that would facilitate an increase of private capital in the Yukon for local companies. Potential actions such as revising the tax credit, creating new tax incentives and establishing a co-investment or matching fund may provide additional leverage for investors and entrepreneurs by reducing the risk in supporting early stage startups.
- **Develop an advisory program for small and medium Yukon businesses to support business growth and market expansion initiatives and strengthen the capacity for innovation.**
  - While supportive services and programs are currently being offered in the Yukon and will be expanded through the implementation of actions within this strategy, it was identified during public engagement and proceedings of the Innovation Commission that finding such programs and services can be challenging.
  - The coordination and formalization of navigation and advisory services will assist and direct startups and entrepreneurs to the services needed to develop and grow their businesses, including for the Government of Yukon, the Government of Canada, ecosystem partners and private sector services.

- **Continue to support the development and implementation of community-based and industry-led innovation projects through Economic Development and partner organization funding programs.**
  - Innovation is not limited to technology and the knowledge economy. For the Yukon to keep pace with other global jurisdictions, it is essential that both the public and private sector strive to make advancements. Industry-led projects to create and implement innovation within their businesses will be supported through Government of Yukon funding programs, such as the Economic Development Fund (EDF), and partner organization programs such as the Innovation & Entrepreneurship Innovation Micro-Grant and Yukon Micro Loan Program.
  - The Department of Economic Development provides community financial supports through two main streams: the Economic Development Fund (EDF) and Community Development Fund (CDF). While the EDF focuses on supporting business innovation, sustainability and planning, including economic diversification, the CDF concentrates on providing support for projects, events and initiatives that deliver long-term, sustainable economic and social benefits to Yukon communities. These resources are available to entrepreneurs and innovators in the Yukon. Other Government of Yukon departments offer funding programs that address the specific needs of innovators across sectors (e.g. Cultural Industries Training Fund, Tourism Training Fund, Yukon [Agriculture] Research and Innovation Program).
- **Provide updated early-stage pathfinding services through joint planning, collaboration and communication between ecosystem partners and funding agencies.**
  - The Government of Yukon, Government of Canada, ecosystem partners and funding agencies all support entrepreneurs and innovators for specific stages, actions and outcomes as they progress along the pipeline. In order to best meet the needs of all, improved collaboration will reduce duplication and streamline processes to achieve successful outcomes.

## SPOTLIGHT ON INNOVATION OUR CLEAN FUTURE

The Yukon's history of adaptation and resilience provides a strong foundation as we work together to address climate change. Our Clean Future lays out a 10-year plan for how the territory will take action in seven key areas, including innovation, to reduce the environmental impacts of existing and new industries. The Government of Yukon will work to support the Yukon's businesses, innovators and entrepreneurs through funding, procurement and skills development.

# Outcomes and Indicators





## Outcomes

The following are the desired outcomes of this strategy that will serve to grow and mature the Yukon's economic ecosystem.

- New opportunities to establish, grow and attract startups.
- Supportive physical and digital infrastructure for startups and scale-ups.
- Accessible pool of talented, skilled local workers.
- Increased participation of Yukon First Nations in the innovation economy.
- Expanded adoption of digital technologies by businesses.
- Creative solutions to unique challenges of living in the North.
- Appropriate financial support for the development of innovative products and processes.
- Strong reputation for the Yukon as a viable investment location.
- Collaborative ecosystem that is responsive to industry needs.



## Indicators

Innovation, by its very nature, is rapidly changing with the emergence of new and exciting developments. As part of the adaptive management process, this five-year strategy will be reviewed for progress to date at the end of its identified term (2023-2028). The evaluation process will assess progress and relevancy of this strategy and consider options for future progress towards the Yukon's innovation goals and priorities.

In addition to reviewing whether the identified action items have been initiated, completed and/or their stage of progress, the following additional overall progress indicators will be used:

- Information and Communications Technology (ICT) sector growth and proportion of the Yukon's GDP;
- Number of Yukon-based startup companies that have reached key financial thresholds based on annual revenue (e.g. pre-revenue, <500K, \$500K-\$1M, \$1M-\$4.99M, >\$5M); and
- Comparison of the maturity of the ecosystem through identified gaps at the beginning of the term of the strategy compared to gaps at the completion of the strategy term (as identified in the "Elements of the Ecosystem" table (see Appendix 12.3).

### SPOTLIGHT ON INNOVATION **COMIT**

In 2022, the Government of Yukon partnered with Google, Yukon First Nation Education Directorate, Yukon University and ComIT to offer free coding training for Yukon First Nation students. In addition to learning new technologies needed in the labour market, the program supports graduates in obtaining IT positions within the local community.

## Conclusion

The Yukon's strong and supportive innovation ecosystem is well placed to build upon our foundational strengths and launch us into the future. By increasing local, national and global collaboration, we will benefit from the knowledge and experience of sector experts while enticing investment to the territory.

Innovation is critical to maintaining a modern and diverse economy and to solving our societal challenges, such as climate change. Through the implementation of this strategy, we will create opportunities for all Yukoners to learn, grow and excel while experiencing the superior lifestyle that the Yukon has to offer.

# Appendix

## 12.1 Summary of Action Items

1. Establish a dedicated website and social media presence to support the innovation community, share information on local developments, expose the territory to global innovation activities and showcase the Yukon's investment potential.
2. Launch an exhibition series to share emerging and future technological innovations to Yukoners through online and in-person demonstrations and presentations.
3. Equip the Yukon's businesses and workers with fundamental technology skills through programs such as through the Canada Digital Adoption Program and the Yukon's labour market development programs.
4. Support youth involvement and awareness in the innovation ecosystem through entrepreneurship and technological programs and showcasing their exceptional ideas to the community.
5. Showcase the Yukon's research and development, Indigenous innovation and supportive services with Arctic and Circumpolar nations.
6. Collaborate with government, academic institutions and industry to expand research opportunities within the Yukon.
7. Partner with innovation policy experts, such as Startup Genome, to assess the evolution, growth and effectiveness of the Yukon ecosystem and globally profile its plentiful investment and career opportunities.
8. Promote the Yukon as a jurisdiction with strong and innovative industries at local, national and international conferences and meetings.
9. Provide coordination among government and industry bodies to spark collaboration and advancement of innovation in the Yukon's key industries.
10. Convene ecosystem service providers on an annual basis to share information on results being achieved by respective organizations as well as strategy implementation progress.
11. Grow local talent by partnering with sector organizations to provide training in technology, innovation and entrepreneurship.
12. Collaborate with the Yukon's educational institutions, including Yukon University, Yukon First Nation Education Directorate and Government of Yukon Department of Education, to advance in-territory technology education opportunities.
13. Expand economic and social innovation opportunities for Yukon First Nations by partnering with key organizations to offer Indigenous-focused training and investment programs.
14. Implement exchange and/or mentorship programs to support the development of local CEOs and early-stage startup entrepreneurs, building knowledge and resiliency among Yukoners.

15. Support businesses in the attraction of talented workers by raising the profile of the Yukon and its many beneficial lifestyle, environmental and economic features (e.g. Yukon Story).
16. Collaborate across the Government of Yukon to identify housing options to support Yukoners' ability to choose careers in innovation and while attracting and retaining skilled workers and entrepreneurs to the territory.
17. Increase access to private capital by working with local angel networks to develop capacity and become investment ready.
18. Continue advocacy efforts with federal counterparts and private sector partners for ongoing improvements to internet services including increased upload speeds and bandwidth, and lower cost.
19. Promote opportunities, such as Code with Us and Sprint with Us, for innovators to proactively pitch ideas and products to the Government of Yukon.
20. In collaboration with ecosystem partners, such as Northlight Innovation Hub, provide modern and effective programs, services and resources to Yukon entrepreneurs and innovators.
21. Explore the creation of appropriate taxation and co-investment incentives to facilitate private investment.
22. Develop an advisory program for small and medium Yukon businesses to support business growth and market expansion initiatives and strengthen the capacity for innovation.
23. Continue to support the development and implementation of community-based and industry-led innovation projects through Economic Development and partner organization funding programs.
24. Provide updated early-stage pathfinding services through joint planning, collaboration and communication between ecosystem partners and funding agencies.



## 12.2 Timeline of the Yukon’s Recent Successes

2011

Creation of the Cold Climate Innovation Centre, which fostered partnerships between applied researchers, industry and government to develop, commercialize and export sustainable cold climate technologies. The Centre won the Startup Canada’s 2016 Entrepreneur Support Award.

2013

The Government of Yukon displayed its commitment to the local telecommunications and tech industry through its establishment of a new branch within Economic Development.

2015

(co)space, a downtown co-working space was launched.

2018

Northlight Innovation Hub opened its doors to local innovators and entrepreneurs.



## 2019

Yukon College's Cold Climate Innovation (CCI) renamed to Innovation & Entrepreneurship (I&E) to broaden the scope for innovations.

Innovation programs such as hackathons, startup bootcamps and incubation programs were hosted to encourage innovation and collaboration.

Whitehorse was named the most entrepreneurial city in Canada by the Canadian Federation of Independent Business<sup>1</sup>.

## 2020

Yukon University's Innovation & Entrepreneurship team, CanNor and Economic Development launched the Pivot program to support businesses in adapting to the changing environment of the early pandemic.

## 2022

New partnerships to launch innovative programs, including an Innovation Commission, ComIT coding program, YELL Canada youth entrepreneurship program, Open Data Summit and Climate research steering committee.

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<sup>1</sup> (<https://www.cfib-fcei.ca/en/media/canadas-top-cities-entrepreneurship-whitehorse-winkler-and-victoriaville-lead-way>)

## 12.3 Elements of the Ecosystem Yukon TI Program Review

### Factors that Drive Innovation

|  | Capital | Talent | Markets | Infrastructure | Entrepreneur | Networks | Profile | R&D&C |
|--|---------|--------|---------|----------------|--------------|----------|---------|-------|
| <b>Yukonstruct</b>                         |         |        |         |                |              |          |         |       |
| Cospace                                    |         |        |         | •              |              | •        |         |       |
| Launchspace                                |         |        |         |                | •            | •        |         |       |
| Makespace                                  |         |        |         |                |              | •        |         | •     |
| Northlight Innovation                      |         |        |         | •              |              | •        | •       | •     |
| <b>Yukon University</b>                    |         |        |         |                |              |          |         |       |
| Business Incubator                         |         |        |         | •              | •            | •        |         |       |
| Innovation & Entrepreneurship              |         |        |         |                | •            |          |         | •     |
| Innovation Prize                           |         |        |         |                | •            |          | •       | •     |
| Research Centre                            |         |        |         |                |              |          |         | •     |
| <b>Tech Yukon</b>                          |         |        |         |                |              |          |         |       |
| Networking events and seminars             |         |        |         |                |              | •        | •       |       |
| <b>Industry Groups and Services</b>        |         |        |         |                |              |          |         |       |
| Association franco-yukonnaise              |         |        |         |                | •            | •        |         |       |
| Entreprenorth                              |         |        |         |                | •            | •        |         |       |
| Futurpreneur                               | •       |        |         |                | •            | •        |         |       |
| Mitacs                                     |         | •      |         |                | •            | •        |         |       |
| SMRT Women                                 |         |        |         |                | •            | •        |         |       |
| Startup Canada (Startup Whitehorse)        |         |        |         |                | •            | •        |         |       |
| Women Ent. Knowledge Hub                   | •       | •      |         |                | •            | •        |         |       |
| Workspace                                  |         |        |         | •              | •            | •        |         |       |
| Yukon Bus. Development Program             |         |        |         |                | •            |          |         |       |
| <b>Sources of Capital (Non-Government)</b> |         |        |         |                |              |          |         |       |
| dāna Nāye Ventures                         | •       |        |         |                | •            |          |         |       |
| First Nations Bank of Canada               | •       |        |         |                | •            |          |         |       |
| Northmark Ventures                         | •       |        |         |                | •            |          |         |       |
| Panache Ventures                           | •       |        |         |                | •            |          |         |       |
| <b>Government of Canada</b>                |         |        |         |                |              |          |         |       |
| BDC  | •       |        |         |                | •            |          |         |       |
| CIPO                                       |         |        |         |                |              |          |         | •     |
| CanNor                                     | •       |        | •       |                |              |          |         |       |
| NRC IRAP                                   |         | •      |         |                |              |          |         | •     |
| Yukon Research and Dev. Tax Credit         |         |        |         |                |              |          |         | •     |
| <b>Government of Yukon</b>                 |         |        |         |                |              |          |         |       |
| Executive Council Office                   |         |        |         |                |              |          |         | •     |
| Economic Development                       | •       |        | •       |                |              |          |         | •     |
| Education                                  |         | •      |         |                |              |          |         |       |
| Highway and Public Works                   |         |        |         | •              |              |          |         |       |

**Yukon** 