

## **British Columbia**

**Technology and Innovation** 



### Minister's Message



As British Columbia's Minister of Jobs, Trade and Technology, it is my pleasure to introduce the British Columbia Technology and Innovation Policy Framework. This framework is a long-term roadmap that will guide government investment in technology and innovation throughout B.C. and across all sectors.

The B.C. government is focused on championing technology and innovation because it creates good-paying jobs for British Columbians. It also supports economic development and growth across all regions of the province and helps address shared priorities, like meeting CleanBC targets.

We have made technology and innovation a priority for economic growth recognizing how critical it is to increase our competitiveness in every sector of the economy, from creating cleaner and greener products, to maximizing the value that is obtained from our wealth of natural resources.

Last year, we invested over \$700 million to help the technology sector thrive. From training new students in science, technology, engineering, arts, and mathematics (STEAM), to supporting technology co-op placements in B.C. businesses, to helping B.C. companies access capital and become exporters, to participating

in the B.C. based Digital Technology Supercluster, these investments support prosperity for future generations.

The technology sector directly employs more than 114,000 British Columbians and there are tens of thousands of other technology-enabled jobs across all industries and in all regions of B.C., making it a building block of our economy.

This framework outlines the goals and priorities that will be the catalyst for continued collaboration with our partners within industry, academia, research, Indigenous peoples and other levels of government to build a better B.C. By aligning interests and building partnerships, we will make sure that benefits are created for British Columbians, businesses and communities.

Since taking office, our government has been working hard to make life better for everyone. This includes investing in solutions that make life more affordable for people in B.C. and maintaining our strong, diversified economy – one that creates good jobs in every corner of the province. The new Technology and Innovation Policy Framework supports this commitment.

Sincerely,

Honourable Bruce Ralston

Minister, Jobs, Trade and Technology

### **British Columbia Technology and Innovation Policy Framework**

### Technology supports almost every aspect of our lives -

connecting us with improved communication, enabling access to critical services in remote communities and providing solutions to improve the quality and safety of our cities and food supply. Innovation is equally impactful for both our lives and the economy, as new ways of working, ideas and products continue to evolve in every industry and region throughout B.C.

The innovation economy recognizes that knowledge creation, entrepreneurship, innovation, technology and collaboration fuel economic growth. With this in mind, we are building new

initiatives that are aligned to the goals of the Technology and Innovation Policy Framework to benefit our ecosystem in B.C.

By implementing this framework we will make B.C. businesses greener and more competitive. We will create better jobs throughout B.C. that pay a good wage and make life more affordable. We will also partner with communities, post-secondary institutions, research organizations and industry to solve some of the most critical challenges we face as a society, such as the impact of wildfires.

### The Framework has four goals:



### **Responding To Our Challenges**

Through this framework, we will focus our efforts on key problems and identify priority investment areas where B.C. is a world leader. Through discussions with our key stakeholders, including the Innovation Commissioner's office, we know that:

#### **TALENT SUPPLY**

B.C. is experiencing rapid growth in the technology sector and has a high employment rate, resulting in a high demand for workers to fill existing and future vacancies.

### **TRAINING**

B.C. needs to continue to invest in training people to help companies fill vacancies in areas like STEAM, marketing, product development and managerial talent.

### CONNECTIVITY

In May 2019, the B.C. government announced the largest investment in connectivity in province's history, allocating \$50 million that will improve internet connectivity to 200 rural and Indigenous communities. This builds on past investments and will continue the B.C. government's expansion of internet connectivity throughout the province to those communities which still lack high speed internet. We see this as critical to expanding participation in the innovation economy and supporting reconciliation

### **SCALE-UP**

B.C. is a leader in entrepreneurship and has an abundance of small start-up companies. Support is needed to help these companies grow so they can become economic anchors in their communities. With this growth comes investment in research and development, supply chains development and the ability to export to global markets – all of which will result in good-paying jobs for British Columbians.

#### **VENTURE CAPITAL**

Venture capital is the fuel technology companies run on. The BC Tech Fund and recent changes to the Small Business Venture Capital Tax Credit Program are designed to help grow the supply of venture capital in B.C. However, there is still strong demand for increased venture capital funding, especially for larger deals, which are needed to support rapid growth, expansion and export.

### **INITIAL CUSTOMER**

B.C. entrepreneurs have great ideas and products, but often it can be hard to find that first customer, especially in areas like cleantech or life sciences.

The B.C. government wants to make it easier for companies to get their first client and prove how great their innovations are.

Through initiatives such as the **BC Procurement Strategy**, government is working to make it easier for businesses of all sizes to bring innovative solutions forward Difficult to grow in through modernized procurement methods. smaller communities

### **SMALL COMMUNITIES**

Helping technology companies grow in smaller communities can be challenging. The B.C. government wants to work with businesses and communities to help them find their niche and more effectively connect people with the services they need to grow their business.



**Demand for talent** 

exceeds supply



# **GOAL 1:** Grow globally competitive industry clusters across the province that support British Columbians.

The first goal is to grow globally competitive industry clusters that will enhance sustainable, clean growth in both B.C.'s emerging sectors and in high profile firms, thereby making B.C. more competitive on the national and international level.

Clusters will focus on specific challenges such as environmental sustainability, helping foundational industries maintain competitiveness, and reducing the number and impact of wildfires throughout the province. There are already industry clusters throughout B.C., such as the interactive media cluster in Vancouver and Metal Tech Alley in the Kootenays. We want to expand these clusters regionally so that they continue to provide benefits for British Columbians.

### **WHAT IS A CLUSTER?**

Conceptualized by Harvard Business School Professor Michael E. Porter, clusters are geographically-connected groups that include all levels of government, companies, communities and academia working together in a particular field. This allows for connections to be forged, best practices to be discussed, and for information, whether quantitative or qualitative, to be shared more efficiently. Clusters, which bring a high degree of collaboration, have been proven to be more productive than their siloed counterparts and provide broader social and economic gains.

### **METAL TECH ALLEY PROFILE**

Metal Tech Alley is an industry cluster focused on digital fabrication and advanced materials. Key focus areas include metallurgy, industrial recycling and growing the circular economy – along with the creation of technologies to support big data. Metal Tech Alley houses one of the largest technical service clusters in southern B.C. and their industrial partners are experts on environmental protection and sustainability. The partnership is led by the Lower Columbia Initiatives Corporation (LCIC) and the communities of Trail, Rossland, Fruitvale, Montrose, Warfield, and Regional Districts A and B; with industry involvement from 76 companies all located in the West Kootenays.





# **GOAL 2:** Increase diversity and participation in the innovation economy including Indigenous peoples and those living in rural areas.

The second goal seeks to include more people and regional centres in the innovation economy to help address the demand for talent and ensure that benefits are felt in all regions of B.C.

Women, Indigenous peoples, those living in rural and remote areas, and other groups can face barriers to their participation in the sector. A major issue faced by some rural and Indigenous-run businesses outside of the Lower Mainland and the Greater Victoria area has been connectivity. The B.C. government has been actively working to better connect communities so small regional companies can grow. We will continue to form strategic partnerships and opportunities to help support these under-represented groups and increase their participation in the innovation economy.

### **DIGITAL MARKETING SKILLS TRAINING PILOT**

The Province has partnered with Alacrity Foundation (Alacrity) to develop a program meant to train new workers in digital customer acquisition (DCA). By gaining access to Alacrity's curriculum, the B.C. government will be able to deliver the program in rural regions of B.C. Providing training in DCA helps businesses reach new markets and allows them to save money on training costs that would otherwise be incurred by on-the-job training. It is also an area where the demand for workers is greater than the supply. By providing training, the program will give more workers these unique skills and help businesses grow.





### The third goal is to help B.C. technology and innovation companies scale up.

Bigger, scaled-up companies tend to invest more in innovation and, in the process, they create new products and services that help to grow the local ecosystem. Scaled-up companies are also engines of economic growth, facilitating the creation and expansion of clusters, which help drive better economic outcomes by providing better paying jobs, accelerating investment into research and development and increasing exports. The Province is developing partnerships and programs to help support this growth.

## INNOVATE B.C.'S VENTURE ACCELERATION PROGRAM

Innovate BC is a Crown agency responsible for the delivery of programs that support innovation, entrepreneurship and business development in the technology sector. Through the Venture Acceleration Program (VAP), experts are available to coach and help ambitious early stage technology entrepreneurs start and grow their technology ventures. The program is delivered by 11 partners across the province, and each entrepreneur in the program is assigned an experienced "Executive in Residence" to help them overcome challenges and meet goals.





# **GOAL 4:** Develop the talent pool to help grow the innovation economy and help attract the right types of investment to B.C.

### The fourth goal is to develop the talent pool that the innovation economy needs today and in the years to come.

Talent, both technological and managerial, is the single biggest need of technology companies. Equally important is the broader objective of growing digital literacy, and recognizing that technology and innovation are foundational components of every business. Building a solid workforce is a critical success factor and the B.C. government is committed to growing talent that will stay in B.C. With the right talent in place, we can attract the best industries, businesses and investment that will provide good-paying jobs for people in the province. These jobs, in turn, help support affordability and help build a strong, sustainable economy.

#### **SKILLS TRAINING EXPANSION**

Since 2018, the B.C. government has made substantial investments into skills training through scholarships and funding to increase spaces in STEAM at institutions throughout the province. For example, 2,900 technology seats in post-secondary institutions are being added throughout B.C. to produce 1,000 additional tech-grads a year by 2023.



## **Next Steps**

The Ministry of Jobs, Trade and Technology is continuing to work with partners to support initiatives and programs under this framework that will benefit British Columbians. They will be listed on the <u>Technology and Innovation Policy Framework</u> webpage as they are announced.

