

**KAST**

**KOOTENAY ASSOCIATION  
FOR SCIENCE & TECHNOLOGY**

# **KOOTENAY ADVANCED MANUFACTURING RESOURCE PACKAGE**

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# OVERVIEW

The Discovery Foundation's Advanced Manufacturing Program, in collaboration with the Kootenay Association for Science and Technology (KAST) and Selkirk Innovates, conducted a comprehensive survey in the Kootenay Region to explore the Advanced Manufacturing sector. This resource package presents key findings and initiatives to address challenges and opportunities in the sector, with a special focus on youth engagement.

The primary objectives of the survey were to understand the current state of the Advanced Manufacturing sector, identify challenges faced by businesses, and explore avenues for future growth. Additionally, the survey sought to address specific issues related to youth recruitment and retention in the industry. This resource package contains tools, information and resources to address some of these challenges including:

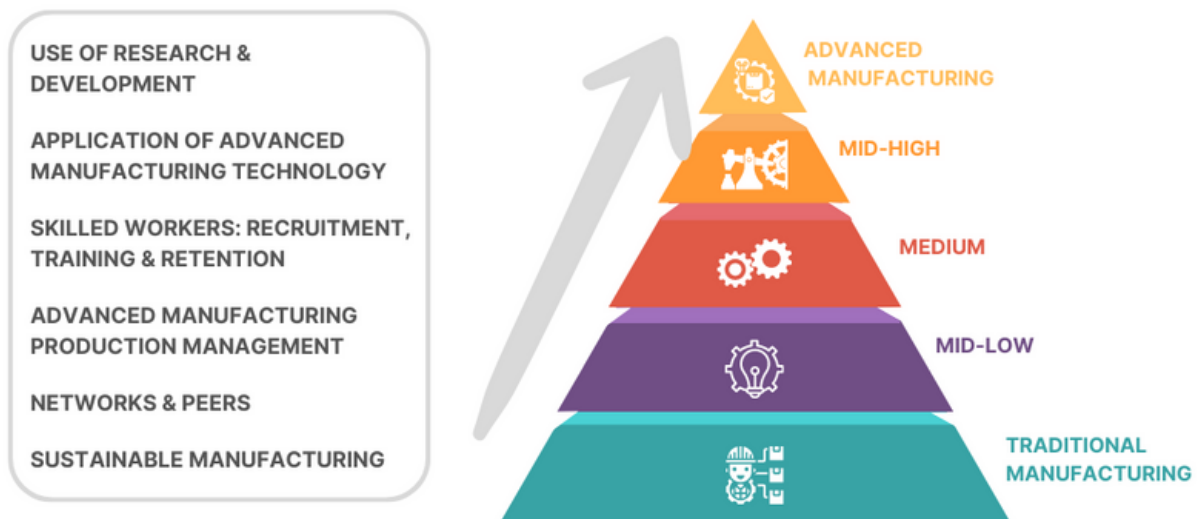
1. **Advanced Manufacturing Self-Assessment Tool:** This package contains a valuable self-assessment tool designed to help businesses evaluate their current level of practice in key areas, including research and development, technology application, recruitment and retention, network and peer collaboration, management for process efficiency, and sustainability. This tool aids in identifying opportunities for improvement and advancement.
2. **Key Findings and Opportunities:** The resource package highlights key findings from the survey, providing insights into the Advanced Manufacturing sector's growth potential and emerging opportunities. Understanding these findings will assist businesses in making informed decisions to thrive in this dynamic industry.
3. **Funding and Grant Opportunities:** Businesses in British Columbia can benefit from a list of available funding and grant opportunities, including wage subsidies, tax credits, education training grants, and online courses in business and technology offered by BC post-secondary institutions. These resources are designed to support businesses in overcoming financial challenges and fostering growth, especially as it pertains to youth engagement and retention, which is a vital component of the sector's sustained growth.

As part of the rapidly expanding Advanced Manufacturing industry in the Kootenay Region, businesses play a crucial role in shaping its future. Together, we can drive innovation, sustainability, and prosperity in the Advanced Manufacturing sector, creating a promising future for businesses and communities alike. KAST is here to support you every step of the way. For more information or to collaborate on future initiatives reach out to [info@kast.com](mailto:info@kast.com)

# ADVANCED MANUFACTURING DEFINED

Advanced Manufacturing is defined as "the use of advanced, innovative, or 'cutting-edge' technology to improve products and/or processes, increase efficiency and reduce costs." Essentially, it is the application of technology to improve efficiency. It can be found across all industries and separates itself from traditional manufacturing through versatility and technical process optimization.

## ADVANCED MANUFACTURING SPECTRUM



At the outset of our project, the definition of Advanced Manufacturing remained ambiguous. However, a comprehensive analysis of the survey data revealed that certain businesses identified with the sector, even if they did not fit neatly into specific sub-sectors. This raised pertinent questions about the criteria for determining whether a business falls within this sector.

To address this issue, we adopted a broader perspective that considers Advanced Manufacturing as operating along a spectrum, encompassing varying levels of advancement and technological innovation. By embracing this diverse approach, we gained a clearer understanding of the sector's landscape and its multifaceted nature.

Beyond the utilization of Advanced Manufacturing technology, we discovered multiple pathways for advancement within the sector. These include engaging in research and development to foster innovation, focusing on skilled worker recruitment and retention, implementing Advanced Manufacturing production management techniques to enhance process efficiency, fostering collaborations with networks and peers, and incorporating sustainable manufacturing practices. Embracing these diverse approaches empowers businesses to progress and thrive within the dynamic Advanced Manufacturing sector.

# WHAT IS THE ADVANCED MANUFACTURING SELF-ASSESSMENT TOOL?

The Advanced Manufacturing Self-Assessment Tool will allow you to evaluate your business's current level of Advanced Manufacturing. The spectrum encompasses six core components: Research and Development, Application of Advanced Manufacturing Technology, Skilled Worker Recruitment, Training, and Retention, Advanced Manufacturing Management, Networking and Peer collaboration, and Sustainability, each applied across varying levels of implementation.

To assess your company's Advanced Manufacturing level, you can follow these steps:

- 1. Self-Assessment:** Complete the Self-Assessment by answering the series of questions categorized within the spectrum's core components. This process will help you identify the strengths and weaknesses of your business in relation to Advanced Manufacturing.
- 2. Spectrum Categories:** Based on your responses, your business will fall into one of five categories of Advanced Manufacturing maturity - low - traditional manufacturing, low-medium, medium, medium-high, or high. Each category represents a different stage of implementation and adoption.

By using the Advanced Manufacturing Spectrum and Self-Assessment, you can gain insights into your company's standing and identify areas for improvement. This will help you make informed decisions to enhance your business's capabilities and competitiveness in the Advanced Manufacturing sector. For more information on this tool contact [info@kast.com](mailto:info@kast.com)



# ADVANCED MANUFACTURING SELF-ASSESSMENT TOOL (1/4)

Take our Advanced Manufacturing Self-Assessment below:

Level of Manufacturing	Low - Traditional Manufacturing	Mid-Low	Medium	Mid-High	Advanced Manufacturing
Circle the description that best applies to your business's current <b>Application of Research &amp; Development.</b>	Relies primarily on traditional manufacturing methods with minimal exploration of emerging technologies.	Basic R&D activities focused on incremental improvements, cost reduction, and optimization of existing products or processes	Innovating for competitive edge, identifying and responding to industry needs and improving efficiency.	Engages in advanced research projects to develop new products, technologies, or processes.	Maintains state-of-the-art research facilities, hires top-notch researchers and scientists.
Circle the description that best applies to your business's current <b>Investment in Research &amp; Development.</b>	Primarily relies on external sources, such as industry trends, for technological advancements and innovations.	Limited investment in R&D resources, such as personnel, equipment, and facilities.	Invests in dedicated R&D activities, personnel and facilities to drive innovation	Established infrastructure for R&D, specialized equipment and skilled research team.	Significant investment in R&D activities and a commitment to innovation.
Circle the description that best applies to your business's current <b>Adoption of Technology for Production &amp; Development.</b>	Relies primarily on traditional manufacturing methods, standard production techniques, and conventional product development practices.	Some adoption of emerging technologies and tools related to advanced manufacturing, such as automation, robotics, additive manufacturing, or digital manufacturing, in both production and product development processes.	Active implementation of advanced manufacturing techniques, including automation, robotics, additive manufacturing, or digital manufacturing.	Adoption of advanced manufacturing techniques, leveraging cutting-edge technologies like artificial intelligence (AI), Internet of Things (IoT), or advanced robotics.	Leading-edge technologies in manufacturing, such as autonomous systems, advanced data analytics, adaptive manufacturing, or advanced supply chain management.
Circle the description that best applies to your business's current <b>Investment in Technology for Production &amp; Development.</b>	Minimal investment in exploring or adopting emerging technologies or innovative product development approaches	Incorporation of improved product development practices, such as computer-aided design (CAD) or simulation tools, to enhance the development process.	Investment in advanced product development tools and methodologies, such as virtual prototyping, rapid iteration, concurrent engineering, or design for manufacturability (DFM), to accelerate the product development process.	Utilization of state-of-the-art production techniques and product development practices, such as digital twin simulations, advanced data analytics, agile manufacturing, or cross-functional collaboration, to achieve operational excellence and innovation.	Continuous exploration of emerging technologies and methodologies to push the boundaries of manufacturing and product development.
Circle the description that best applies to your business's current <b>Recruitment practices.</b>	Relatively passive recruitment process with minimal efforts to attract highly skilled individuals.	Proactive recruitment efforts targeting individuals with relevant skills and experience.	Strategic recruitment initiatives targeting top talent, both internally and externally.	Proactive recruitment strategies, including partnerships with educational institutions, industry networks, and targeted talent sourcing.	Highly strategic recruitment practices, including talent scouting, employer branding, and leveraging innovative sourcing channels.
Circle the description that best applies to your business's current <b>Training practices.</b>	Basic onboarding and orientation with position specific training	Basic training programs provided to new hires, with some investment in upskilling and professional development.	Well-developed training programs to onboard new hires and provide continuous upskilling opportunities.	Comprehensive training and development programs tailored to advanced manufacturing skills and technologies.	Cutting-edge training programs, including collaborations with educational institutions and internal centers of excellence.
Circle the description that best applies to your business's current <b>Retention practices.</b>	Low focus on employee retention strategies, resulting in higher turnover rates.	Initial retention efforts, such as competitive compensation and benefits, but limited focus on long-term retention strategies.	Efforts to enhance employee retention through career development pathways, performance-based incentives, and a positive work environment.	Robust employee retention initiatives, such as competitive compensation packages, mentorship programs, work-life balance initiatives, and opportunities for advancement.	Strong focus on employee retention, offering attractive benefits, comprehensive career development opportunities, and a supportive company culture.



# ADVANCED MANUFACTURING SELF-ASSESSMENT TOOL (2/4)

Level of Manufacturing	Low - Traditional Manufacturing	Mid-Low	Medium	Mid-High	Advanced Manufacturing
Circle the description that best applies to your business's current <b>Investment in Process Efficiency</b> .	Minimal investment in process optimization, automation, or data-driven decision-making.	Some investment in process optimization, automation, or data-driven decision-making tools.	Significant investment in process optimization, automation, and data-driven decision-making technologies.	Extensive investment in cutting-edge process optimization, automation, and data analytics technologies.	Pioneering the use of revolutionary technologies and methodologies to optimize processes and achieve operational excellence.
Circle the description that best applies to your business's current <b>Implementation of Process Efficiency</b> .	Relatively basic production planning and control systems with limited integration of advanced technologies.	Introduction of basic production planning and control systems with limited integration of advanced technologies, such as machine monitoring or quality control systems.	Implementation of advanced production planning and control systems, leveraging real-time data integration, advanced analytics, and optimization algorithms.	Integration of advanced production planning and control systems with the use of artificial intelligence (AI), machine learning, or predictive analytics.	Implementation of advanced systems, such as smart factories or cyber-physical systems, to enable seamless integration, automation, and optimization across the entire value chain.
Circle the description that best applies to your business's current approach to <b>Quality Control of Process Efficiency</b> .	Reactive approach to addressing process inefficiencies, with limited use of performance metrics and continuous improvement initiatives.	Initiatives for identifying and addressing process inefficiencies, with periodic performance monitoring and improvement projects.	Proactive approach to identifying and resolving process inefficiencies through continuous improvement methodologies, such as Lean or Six Sigma.	Continuous monitoring of key performance indicators, real-time process optimization, and proactive identification of inefficiencies using advanced analytics and digital twins.	Continuous improvement culture with real-time monitoring, predictive maintenance, and advanced analytics driving continuous optimization and innovation.
Circle the description that best describes your business's current <b>Access to Expertise</b> .	Limited access to external expertise, cutting-edge technologies, or collaborative research opportunities.	Limited engagement with external experts, research institutions, or technology providers for specific projects or knowledge exchange.	Engaging in joint projects, partnerships, or technology exchanges with external experts, research institutions, or technology providers.	Actively establishing strategic partnerships, joint ventures, or research collaborations with external experts, research institutions, or technology providers.	Strategic alliances, joint ventures, or research partnerships with leading experts, research institutions, or technology providers to co-create advanced manufacturing solutions and drive industry advancements.
Circle the description that best applies to your business's current awareness of <b>Funding and Grants</b> .	Limited exploration of external funding sources for research, development, or expansion.	Limited utilization of external funding sources for specific initiatives, such as research projects or technology adoption.	Pursuit of external funding sources for various initiatives, such as R&D projects, technology acquisitions, or facility expansions.	Actively seeking external funding sources, such as government grants, venture capital, or private equity, to support R&D, innovation, and expansion efforts.	Proactively seeking and leveraging various funding sources, including government grants, strategic partnerships, venture capital, or public offerings.
Circle the description that best applies to your business's current relationships with <b>Investors or Financial Institutions</b> .	Minimal efforts to establish relationships with investors or seek venture capital.	Occasional networking with investors but with minimal strategic relationship-building efforts.	Building relationships with investors through targeted networking, pitching, and regular communication.	Establishing strategic relationships with investors, fostering long-term partnerships, and engaging in ongoing dialogue for mutual growth.	Cultivating strong relationships with investors, strategic partners, and industry stakeholders to foster innovation, drive growth, and attract significant investment.

# ADVANCED MANUFACTURING SELF-ASSESSMENT TOOL (3/4)

Level of Manufacturing	Low - Traditional Manufacturing	Mid-Low	Medium	Mid-High	Advanced Manufacturing
Circle the description that best applies to your manufacturing business's current level of consideration toward <b>Environmental Impact</b> .	Minimal consideration of environmental impact or resource efficiency in manufacturing processes.	Some consideration of environmental impact and resource efficiency in manufacturing processes.	Significant consideration of environmental impact and resource efficiency in manufacturing processes.	Proactive consideration of environmental impact and resource efficiency throughout the manufacturing processes and supply chain.	Holistic approach to environmental impact and resource efficiency across all aspects of manufacturing operations.
Circle the description that best applies to your business's current <b>Adoption of Sustainable Technology</b> .	Limited adoption of technologies or practices that promote sustainability, such as energy-efficient systems or waste reduction initiatives.	Partial adoption of technologies or practices that promote sustainability, such as energy-efficient systems or recycling programs.	Adoption of advanced technologies or practices that promote sustainability, such as renewable energy sources, closed-loop systems, or life cycle assessments.	Implementation of advanced technologies and innovative practices that promote sustainability, such as carbon footprint reduction strategies, circular economy principles, or sustainable material sourcing.	Implementation of cutting-edge technologies and best practices that drive sustainability, such as smart energy management, zero-waste manufacturing, or eco-design principles.
Circle the description as it relates to your business's current use of <b>Research &amp; Development for Sustainability</b> .	Minimal investment in research or development of sustainable manufacturing solutions.	Moderate investment in research or development of sustainable manufacturing solutions.	Active investment in research or development of sustainable manufacturing solutions and continuous improvement of sustainable practices.	Substantial investment in research or development of sustainable manufacturing solutions and active collaboration with external partners, industry groups, or sustainability experts.	Continuous investment in research or development of sustainable manufacturing solutions, active engagement with sustainability thought leaders, and leadership in driving industry-wide sustainable manufacturing initiatives.



# ADVANCED MANUFACTURING SELF-ASSESSMENT TOOL (4/4)

	Low - Traditional Manufacturing	Mid-Low	Medium	Mid-High	Advanced Manufacturing
Results & Advancement Opportunities	<p>At the low level, a manufacturing business typically exhibits limited capabilities and may face challenges in terms of efficiency, technology adoption, and competitiveness. It may lack advanced manufacturing processes, a skilled workforce, and effective management systems.</p> <p>To advance to the next level:</p> <ol style="list-style-type: none"><li>1. Focus on improving operational efficiency through lean manufacturing principles and process optimization.</li><li>2. Invest in employee training and development to enhance skills and knowledge.</li><li>3. Explore partnerships or collaborations with industry experts or research institutions to access advanced manufacturing technologies and expertise.</li><li>4. Conduct market research to identify areas for product or process improvement and innovation.</li></ol>	<p>A low-medium level manufacturing business has made some progress in addressing efficiency and competency gaps but still has room for improvement. It may have started adopting basic automation or lean practices but has not fully optimized its operations.</p> <p>To advance to the medium level:</p> <ol style="list-style-type: none"><li>1. Continue implementing lean manufacturing principles and process optimization to reduce waste and improve productivity.</li><li>2. Invest in more advanced automation technologies and data-driven systems to enhance operational efficiency.</li><li>3. Develop a robust supply chain management strategy to streamline logistics and reduce costs.</li><li>4. Engage in ongoing workforce development and training programs to cultivate specialized skills and knowledge.</li><li>5. Explore collaborations or partnerships with suppliers, customers, or research institutions to foster innovation and stay updated on industry trends.</li></ol>	<p>At the medium level, a manufacturing business demonstrates a moderate level of technological advancement, efficiency, and competitiveness. It has implemented more sophisticated manufacturing processes and management systems. To advance to the medium-high level:</p> <ol style="list-style-type: none"><li>1. Invest in advanced manufacturing technologies such as robotics, AI, or additive manufacturing to further enhance production capabilities.</li><li>2. Implement data analytics and digital manufacturing solutions to optimize processes, improve quality control, and enable real-time decision-making.</li><li>3. Foster a culture of continuous improvement and innovation across the organization.</li><li>4. Strengthen supply chain relationships by establishing strategic partnerships or supplier integration.</li><li>5. Enhance employee engagement and retention through competitive compensation packages and career development opportunities.</li></ol>	<p>A medium-high level manufacturing business demonstrates a high degree of technological integration, operational excellence, and market competitiveness. It leverages advanced manufacturing technologies and management practices to gain a competitive edge.</p> <p>To advance to the high level:</p> <ol style="list-style-type: none"><li>1. Focus on continuous R&amp;D efforts to develop and integrate cutting-edge technologies into manufacturing processes.</li><li>2. Embrace digital transformation, including IoT connectivity, smart factories, and predictive analytics, to optimize operations and enable agile manufacturing.</li><li>3. Establish strategic alliances with industry leaders, research institutions, or startups to access emerging technologies and expand market reach.</li><li>4. Foster a culture of innovation by encouraging cross-functional collaboration and empowering employees to contribute to process improvement and product development.</li><li>5. Proactively monitor industry trends and customer demands to identify new market opportunities and adapt business strategies accordingly.</li></ol>	<p>At the high level, a manufacturing business is at the forefront of technology, innovation, and market leadership. It consistently demonstrates excellence in manufacturing practices and enjoys a strong competitive position.</p> <p>To maintain and advance at the high level:</p> <ol style="list-style-type: none"><li>1. Continuously invest in R&amp;D to stay ahead of technological advancements and market trends.</li><li>2. Foster an agile and adaptable organizational structure to respond quickly to changing customer demands and market conditions.</li><li>3. Seek opportunities for business expansion through diversification, mergers, acquisitions, or global market penetration.</li><li>4. Cultivate a culture of sustainability and social responsibility to align with evolving consumer expectations.</li><li>5. Develop strong relationships with key stakeholders, including customers, suppliers, industry associations, and government agencies, to drive collaboration and maintain a competitive edge.</li></ol>

# SURVEY KEY FINDINGS AND OUTCOMES

The Advanced Manufacturing Survey results are in and here are the key findings:

## Essential Skills



Technical Knowledge  
or Aptitude



Soft Skills



Entrepreneurship Skills

## Industry Challenges



Lack of Capital  
Expenditure



Difficulty in Recruiting  
Skilled Workers

## Industry Opportunities



Building the Right  
Networks



Collaborating with  
Relevant Organizations



Structured Training for  
Potential Employees

# CHALLENGES & OPPORTUNITIES

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## Business Specific Challenges

Employee Attraction and Recruitment	Employee Retention	Challenges that Apply to Youth
<ul style="list-style-type: none"><li>• Lack of local recruits (19%)</li><li>• Lack of skill set/education (16%)</li><li>• Lack of industry knowledge and experience (14%)</li></ul>	<ul style="list-style-type: none"><li>• Employees don't stay with the company for very long (18%)</li><li>• Need for accommodating schedule or flexible work arrangement (16%)</li><li>• Unrealistic wage expectations (14%)</li></ul>	<ul style="list-style-type: none"><li>• Poor work ethic, attitude, or a sense of entitlement (17%)</li><li>• Unrealistic wage expectations (15%)</li><li>• Don't stay with the company for very long (14%)</li></ul>

## Broader Regional Challenges

Employee Attraction and Recruitment	Employee Retention	Challenges that Apply to Youth
<ul style="list-style-type: none"><li>• Housing (40%)</li><li>• Cost of Living (24%)</li><li>• Transportation (13%)</li></ul>	<ul style="list-style-type: none"><li>• Housing (37%)</li><li>• Cost of Living (22%)</li><li>• Employment opportunities for family (15%)</li></ul>	<ul style="list-style-type: none"><li>• Housing (32%)</li><li>• Cost of living (25%)</li><li>• Transportation (18%)</li></ul>

# CHALLENGES & OPPORTUNITIES

## Funding

Needs or Barriers	Solutions and Supports
<ul style="list-style-type: none"><li>• Funding to expand their businesses</li><li>• Funding/financing to increase Capital Expenditure</li></ul>	<ul style="list-style-type: none"><li>• Funding opportunities for research projects</li><li>• Capital expenditure funding</li><li>• Grants or zero-interest loans</li><li>• Industry investment</li></ul>

## Workforce

Needs or Barriers	Solutions and Supports	Identified Opportunities
<ul style="list-style-type: none"><li>• Lack of skilled and experienced staff</li><li>• Filling knowledge gap</li></ul>	<ul style="list-style-type: none"><li>• Locally trained employees</li><li>• Supervision and planning courses</li><li>• Training programs</li></ul>	<ul style="list-style-type: none"><li>• Selkirk College's Digital Fabrication students</li><li>• Selkirk Technology Access Centre (STAC)</li></ul>

## Employee Recruitment & Retention

Recruitment Strategies	Solutions and Supports
<ul style="list-style-type: none"><li>• Advertising through social media, word-of-mouth, website, etc.</li><li>• Benefits such as flexible work hours, relocation allocation, etc.</li><li>• Providing training to employees</li><li>• Student funding programs</li></ul>	<ul style="list-style-type: none"><li>• Housing supports</li><li>• Wage subsidies and grants</li><li>• Increase awareness through job fairs and job boards</li><li>• Campaign to celebrate trades and technology</li></ul>



# CHALLENGES & OPPORTUNITIES

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## Supply Chain

Needs or Barriers	Solutions and Supports
<ul style="list-style-type: none"><li>• Increasing costs of raw materials</li><li>• Supply of raw materials</li><li>• Shipping or transportation issues</li></ul>	<ul style="list-style-type: none"><li>• Stable logistics systems allowing manufacturers to get products to market at a reasonable cost</li></ul>

## Facilities and Space

Needs or Barriers	Solutions and Supports
<ul style="list-style-type: none"><li>• Size of premises</li><li>• Lack of commercial real estate or inadequate infrastructure</li><li>• Lack of affordable commercial real estate suitable for business</li></ul>	<ul style="list-style-type: none"><li>• More commercial real estate developments</li><li>• Development of rural manufacturer infrastructure supports</li></ul>

# RESOURCES

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## 01 — Selkirk Technology Access Centre (STAC)

Selkirk College is training the next generation of skilled workers through their digital fabrication program based at the Selkirk Technology Access Centre in Trail, and they are here to help your business through access to equipment, innovation and design support. STAC is a part of Selkirk Innovates, which offers access to skilled faculty, staff and students and nearly \$2 million in highly specialized equipment and software. Selkirk Innovates can help connect your business to unique funding opportunities so you can develop new and improved products, services and/or processes, train your employees and grow your business. You can also access fee-for-service research support ([Selkirk Innovates](#)).

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Located in Trail, the Selkirk Technology Access Centre (STAC) is a one-stop shop to access the advanced technologies you need to drive business innovation, helping you apply new technologies to workflows, prototype new designs, reverse engineer critical parts, find advanced technology solutions and enhance manufacturing processes.  
- [Selkirk Technology Access Centre](#)

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# GRANT & FUNDING OPPORTUNITIES

1

## BC Manufacturing Jobs Fund

This program reflects the Province's ongoing commitment to promote economic diversification and complements other supports for forestry workers and rural communities. Offered in two streams:

Stream 1	Stream 2
<p><b>Project Readiness:</b> Funding to complete final-stage business and project planning, including operational and technical assessments, up to \$50,000, and up to 50% of total eligible project costs. Examples include:</p> <ul style="list-style-type: none"><li>• Developing a business case to expand operations or diversify product lines, or</li><li>• Conducting an operational or technical assessment to improve processes or introduce new technology</li></ul>	<p><b>Capital Investment:</b> Funding to invest in new or renovated manufacturing infrastructure, technology, equipment, and processes, including renovating idle industrial buildings such as an unused mill site. Funding a minimum of \$100,000 and a maximum of \$10,000,000, total eligible project costs should be approximately \$500,000 up to \$100 million. Examples include:</p> <ul style="list-style-type: none"><li>• Building or expanding a manufacturing facility</li><li>• Upgrading equipment or machinery to support new product lines</li><li>• Adopting innovative processes to manufacture value-added forestry products from biomass or other alternatives</li><li>• Retrofitting a processing facility to expand or adopt new technology and processes</li><li>• Improve processes for fabrication</li></ul>

2

## **Columbia Basin Trust - Career Internship Program**

CBT's Career Internship Program provides eligible employers with up to 50 per cent of an intern's salary and mandatory employment related costs (MERCs) (up to \$25,000 over a seven-to-12- month term) for full-time, career-focused positions that lead to permanent employment.

This program is designed to:

- support employers with hiring and training emerging professionals;
- support the growth of commercial operations or service delivery of Basin organizations;
- stimulate economic activity and regional workforce development;
- provide post-secondary graduates with the opportunity to develop skills and experience in their chosen field and gain meaningful and sustainable employment; and
- inspire graduates to return to, move to, or stay in the Basin.

3

## **ICTC's WIL Digital Program**

Supported by Government of Canada's Student Work Integrated Learning Program, ICTC's WIL Digital Program provides:

A subsidy up to \$7,000 CAD offered to eligible Canadian companies in emerging ICT sectors to hire students.

- 50% of the student salary up to \$5000
- or 70% of the student salary up to \$7000 for the following under-represented groups: Women in STEM (Science, Technology, Engineering and Mathematics), Indigenous students, Recent immigrants, Students with disabilities and First-year students.

4

## **Innovate BC**

Innovate BC offers a number of programs to support BC businesses including:

**Ignite** - To develop industry and Academic collaborations in the natural resources and applied sciences focused on research and development.

**ScaleUp** - The ScaleUp program supports companies that have completed product market validation and are ready to scale up their businesses.

**Innovator Skills Initiative** - The Innovator Skills Initiative provides up to \$10,000 to help employers hire a new employee. The program helps under-represented people get their first job in B.C.'s tech sector and supports companies facing skills shortages to grow and expand. Applications are currently being waitlisted due to high-demand.

**Venture Acceleration Program** - The VAP helps B.C. tech entrepreneurs accelerate the process of defining a proven business model. This program is designed to help growing technology companies and is supported by a province-wide network of partners and entrepreneurs, the VAP helps small- to medium- sized tech companies grow into successful businesses.



5

## **Mitacs**

Mitacs offers a number of programs providing matching funding and talent to help solve organizational research challenges, including:

**Accelerate** - Solve your research challenges with academic expertise, leveraged funding, and one-to-one support from Mitacs. Internships start at four months and can scale up as much as you need — your financial contribution starts at \$7,500.

**Business Strategy Internships** - Canadian organizations can get help from outstanding students with innovation activities through a four-month \$10,000 or \$15,000 internship. Your contribution? Only \$5,000 or \$7,500.

**Globalink** - Expand the reach of your business through bilateral collaborations with Canadian and international researchers. Globalink supports projects that help you strengthen your networks, develop partnerships, create joint ventures, and stay on top of global trends in your sector. Mitacs matches project funds, starting at \$7,500 for a 16–24-week project.

**Entrepreneur International** - Mitacs Entrepreneur International assists with travel costs — up to \$5,000 — to help new businesses opportunities abroad. Mitacs Entrepreneur International offers travel grants to Canadian start-ups housed in an incubator linked to an academic institution. The grant enables start-ups to connect with international incubators allowing you to explore new business development opportunities in global markets.

**Elevate** - Solve your business challenges with a top-ranked research expert trained to address your business needs. Your financial contribution starts at \$30,000 per year.

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## **NRC-IRAP**

The National Research Council of Canada Industrial Research Assistance Program (NRC IRAP) provides advice, connections, and funding to help Canadian small and medium-sized businesses increase their innovation capacity and take ideas to market. Among its services IRAP offers:

- Advisory Services
- Financial support for technology innovation
- Funding to hire young graduates
- Support for intellectual property

Contact local regional IRAP representatives for more information:  
Bruce Hardy - [Bruce.Hardy@nrc-cnrc.gc.ca](mailto:Bruce.Hardy@nrc-cnrc.gc.ca) and Dave Damer - [Dave.Damer@nrc-cnrc.gc.ca](mailto:Dave.Damer@nrc-cnrc.gc.ca)

7

## **Small Business BC - Grow your Business Online Grant**

Businesses eligible for the Small Business BC's Grow Your Business Online Grant will receive a micro-grant of up to \$2,400 before taxes to help with costs relating to adopting digital technologies.

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### **KCDS's West Kootenay Tech Program**

Offered by the Kootenay Career Development Society serving Nelson, Castlegar, Trail, this program offers employers:

- Staff recruitment services and individualized employee training plans
- Financial supports for tech-related training employment readiness for new employee
- Wage subsidies up to 50% covering the probation period (3 months)
- Potential to cover additional costs of employee onboarding
- Support in building a skilled local workforce and applicant pool

9

### **Scientific Research and Experimental Development Tax Credits**

To claim the Scientific Research and Experimental Development (SR&ED) investment tax credit (ITC), the work must meet two requirements:

- the work is conducted for the advancement of scientific knowledge or for the purpose of achieving a technological advancement
- the work is a systematic investigation or search that is carried out in a field of science or technology by means of experiment or analysis

Take the [Self-Assessment](#) to see if your business qualifies.

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### **WorkBC - BC Employer Training Grant**

The B.C. Employer Training Grant provides funding to small, medium and large enterprises to support skills training for their workforces, including prospective new hires.

The Employer Training Grant helps employers pay for training, which in turn helps employees experience increased job security or move into better jobs.

Employers can apply as often as they need and receive 80 per cent of the cost of training up to \$10,000 per employee, with a maximum annual amount per employer of \$300,000.

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### **StrongerBC Future Skills Grant**

There are over 400 programs available to BC residents aged 19 and older, \$3,500 per person for eligible short-term skills training at public post-secondary institutions. The following is a sample of available online courses applicable to the technology and manufacturing sector, including business and project management programs.

## Online learning for Short-term Skills Training @ BC Post-secondary Institutions

[Low-Code Mobile Application Development, Microcredential, Part-time/Distance & Online Learning\\_\(0810CM\) - BCIT](#)

[Entrepreneurship Online - Capilano University Continuing Studies](#)

[Leading Ideas: Drive Innovation - Capilano University Continuing Studies](#)

[Business Intelligence and Data Analytics | Continuing Studies at UVic](#)

[Project Management for Biomedical Device Development - University of Victoria \(uvic.ca\)](#)

[Award of Achievement in Business Communication and Project Management | VCC](#)

[Data Analysis and Visualization - Capilano University Continuing Studies](#)

[MS Project - Capilano University Continuing Studies](#)

[Design Accessibility Course - Continuing Studies | Emily Carr University \(ecua.ca\)](#)

[Design Thinking Course - Continuing Studies | Emily Carr University \(ecua.ca\)](#)

[Leading Projects in a Digital Environment Micro-credential | Royal Roads University](#)

[Business Administration Essentials Micro-credential | Royal Roads University](#)

[Cloud Transformation and Technology Infrastructure Strategy | UBC Extended Learning \(ExL\)](#)

[Ideation + Prototyping for Human Centered Design Micro-credential | University of Northern British Columbia \(unbc.ca\)](#)

[Blockchain Management: Microcredential Courses: Thompson Rivers University \(tru.ca\)](#)

[Blockchain Innovation and Implementation | UBC Extended Learning \(ExL\)](#)

[Micro-certificate program: Food Safety Management \(ubc.ca\)](#)

[Communication for Team-based Collaboration \(XCOM 1000\) - BCIT](#)

[ESG Fundamentals Microcredential \(boardoftrade.com\)](#)

[Technical Communication Essentials, Microcredential, Part-time/Distance & Online Learning\\_\(0826CM\) - BCIT](#)

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