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IGNITE PROGRAM GUIDELINES 2019

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Innovate BC is a Crown Agency
of the Province of BC



Program Overview

The Natural Resources and Applied Sciences (NRAS) Endowment was established by the Province of British Columbia to enhance the quality of life for British Columbians by building a strong research and development, advanced training, technology transfer and commercialization environment. This will be achieved through targeted investments in activities relating to natural resources, the applied sciences and engineering.

Purpose

The Ignite program, launched in 2016, has been specifically designed for industry-driven academic research in the natural resources and applied sciences in British Columbia. The Ignite program provides funding to advance research and commercialization activities for collaborative, industry-driven, projects that will have significant benefits to British Columbia. The program is strongly focused on commercialization outcomes. Funds from Ignite help support the advancement of technologies that have a clearly articulated solution to an existing industry problem, are beyond proof of concept but pre-commercial, and demonstrate the capacity to move the proposed innovation to market within a 3-year timeframe.

Program Objectives

The Ignite program aims to provide research consortiums the opportunity to accelerate their innovations towards commercialization that will ultimately help solve known industry problems and provide significant economic, environmental, social and/or health benefits to British Columbians.

The specific objectives of the program are to:

- Support market-driven applied academic research aimed at addressing core needs of local industry sectors to improve their competitiveness and provide strategic benefits to BC;
- Strengthen strategic academic-industry partnerships that provide opportunities for advanced technology transfer and commercialization;
- Support talent development and training of high-calibre personnel through collaborative research between industry and post-secondary institutions;
- Enhance British Columbia's economic development by supporting the commercialization of new technologies that will strengthen the natural resource and technology sectors.

Award Amount and Duration

Awards are valued to a maximum of \$300,000 (CAD) over a 3-year maximum project duration. Ignite is a cost-shared program, anticipated to have two intakes per year. The current annual budget for the Ignite program is approximately \$2.1M per year. The size and scope of competitions in future years will depend on the availability of funding.



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1.0 Competition Deadlines 2019

Ignite Round 7

Deadline to submit Letter of Intent (LOI) to Innovate BC:	January 28, 2019
Deadline for invited applicants to submit full proposal:	April 8, 2019
Anticipated notice of decision:	Late June 2019
Anticipated start of funding:	July 2019

Ignite Round 8

Deadline to submit Letter of Intent (LOI) to Innovate BC:	August 12, 2019
Deadline for invited applicants to submit full proposal:	October 21, 2019
Anticipated notice of decision:	Late December 2019
Anticipated start of funding:	January 2020

All applications are due to INNOVATE BC by 11:59PM PST on the published deadlines listed above.

Innovate BC reserves the right to modify published deadlines as required. The academic partner institution will have a deadline for submitting a full proposal that is earlier than Innovate BC's deadline. This enables the host institution to review and approve your application in time to submit it by Innovate BC's full proposal deadline.

For program information, contact: Kailyn Skuban, Program Manager T: 604.602.5205 E: programs@innovatebc.ca

2.0 Eligibility Requirements

This Program is open to proposals for market-driven, applied academic research projects in the fields of natural resources and applied sciences, which will result in a commercialized application.

The Ignite Program:

- Supports only the most innovative technologies; those with the potential to meet market demand and to achieve the goals of the NRAS Endowment Fund which is to build research and development, advanced training, technology transfer and commercialization capacity in BC.
- Does not identify priority research topics. Proposals must involve academic research, driven by industry needs, in the areas of natural resources, applied science and/or engineering and must meet the other program objectives.
- Funds research related expenses incurred by the industry and academic collaborators that are required to commercialize an innovation. Please note that Ignite does not fund private companies.



2.1 Key Requirements

Applicants must provide evidence that:

- The project will solve a significant demonstrated problem faced by industry; commercial research that solely benefits one company and does not solve broader industry challenges will not qualify.
- They have formed a collaborative arrangement between academic and industrial research partners so that the project has the right managerial, business planning, financial, strategic, and technological capacity.
- The project is based on science or technology in the areas of natural resources, applied science and engineering.
- The innovation is at a [Technology Readiness Level of 3 to 4 or higher](#), as per the scale used by the Build in Canada Innovation Program (BCIP).
- The innovation is new to British Columbia and benefiting British Columbia.
- The innovation will be commercializable within 3 years of the start of the research project.
- The innovation has long-term economic sustainability (i.e. profitability).
- The innovation is likely to be adopted broadly, having national and/or global market potential.

Innovate BC reserves the right to declare applications ineligible based on the established criteria.

2.2 Eligible Costs

Only direct costs of research will be supported. Ignite funds research related expenses incurred by the industry and academic collaborators that are required to commercialize an innovation. Ignite does not fund companies directly.

Examples of eligible costs include, but are not limited to:

- Salaries/stipends for research and technical personnel;
- Materials, supplies and equipment directly related to the scientific or technical research necessary for advancing the innovation towards commercialization (e.g. prototyping, scale-up, product refinement, validation studies, etc.);
- Necessary activities specifically related to technology transfer and commercialization (e.g. sharing of patenting and licensing fees with university, consulting fees for IP strategy, etc.);
- Travel and accommodation for collaborative purposes;
- Up to 10% of the Ignite funding request for indirect administrative costs (e.g., university overhead).

2.3 Matching Fund Requirements

Matching funds are defined as funds from other sources. Projects must secure matching funds from industry or government sources at a ratio of 2:1 matching dollars to Ignite dollars. No more than 50% of the matching funds can be from government sources. A maximum of 50% of matched funds can be in-kind.



In-kind contributions must be valued at cost. In-kind contributions need to be considered essential to the success of the project. They could be in the form of cash-equivalent goods, services or personnel time that if not otherwise contributed by an industry or public sector partner, the applicant would have to acquire the resources with institutional cash. Innovate BC aligns its guidelines for eligibility and value of in-kind contributions with those used by the Natural Sciences and Engineering Research Council (NSERC) for organizations participating in research partnerships.

2.4 Workplan

Project workplans must include both research and commercialization milestones that are clear, specific, and discretely identified. Funded projects must plan to conclude within 3 years and demonstrate that they can move the proposed innovation to market within the 3-year timeframe.

2.5 Commercialization Definition

Commercialization of a technology is considered to have occurred when a customer purchases a technology product. Successful commercialization occurs when an identified ‘problem’ is solved. These problems are identified by industry or the marketplace. Commercialization is the [process](#) or cycle of introducing a new [product](#) or production method into the [market](#). Many technologies begin in the [laboratory](#) and/or post-secondary institution and are not practical for [commercial](#) use. The technology must get through the prototype phase and be scalable to be considered to have the potential to be commercial. Therefore the development portion of R&D requires time and money as [systems are engineered](#) that will make the product or method a paying [commercial](#) proposition. Having a market that demands the product is critical. Companies that are commercializing need to access these markets to find early adopters who are demanding solutions or tolerant of trying new technologies with their inherent risks.

2.6 Location of Research

It is expected that research activities will be carried out within British Columbia using BC-based personnel; however, specialized activities that can only be conducted outside of British Columbia or expertise that is available only outside of British Columbia will be accepted. Any specialized activities or resources required that are outside British Columbia must be pre-approved by the review committee.

3.0 Applicant Requirements

To be eligible, applicants must be a BC-based consortium comprised of two or more companies, organizations, and academic researchers. At a minimum, the consortium must contain one academic member and one industry partner.

A consortium must have the right academic, managerial, financial, and technological expertise to successfully bring their innovations from the research and development phase to market. A key criterion in the assessment of the project is that applicants have the right ‘Go-to-Market Consortium’. Ideally this includes representatives of the project’s full value chain from researchers, to suppliers, to end users.



Although private companies are the most obvious means of exploiting research results commercially, other kinds of organizations may also be appropriate partners. At a minimum, any proposed partner, whether an established company, a start-up, or an industry association must have a credible plan for exploiting research results for the benefit of British Columbia. The industry partner must show that it has the expertise and resources to accelerate the commercialization of the innovation. Preference is given to partners that are either end users or capable of market validation.

The following are general guidelines that consortium members must meet.

3.1 Consortia Requirements

- Consortia may be formal or informal but must have a clearly defined partnership between the academic and industry partners in advance of applying.
- Consortia members are responsible for ensuring IP arrangements are in order and agreed to by all members in advance of applying.
- If the consortium is pre-existing, there must be active involvement in the research project from two or more members.
- The consortia must demonstrate the capacity to guide the project.
- Consortia can apply for and hold more than one Ignite grant.
- Consortium members can be members of other consortia that apply for funding.
- The consortium can include members from outside British Columbia (including multinational and foreign member organizations) providing the majority of the team is from British Columbia, that an eligible British Columbia organization maintains a leading role throughout the project, results will be exploited in British Columbia, and the contributions of non-BC members to meet the program objectives are clearly demonstrated.
- A researcher's own consulting company or sole proprietorship is **not** eligible as an industrial partner to collaborate on a project in which the researcher is the applicant or co-applicant. See below for more information on research-owned companies.
- The consortium acknowledges that the Ignite program funds research projects, not companies. All members agree that the primary academic partner's institution will receive and administer Ignite funds on behalf of the consortium.

3.2 Academic Faculty Requirements

- To be eligible as the primary academic partner in the consortium, you must hold or have a firm offer of a permanent academic appointment at an eligible British Columbia institution at the time of application. The appointment can be a full-time faculty position; or a lifetime professor emeritus, adjunct faculty or other permanent part-time position.
- Adjunct professors who meet Ignite eligibility are eligible.



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- **For university faculty**, the position must permit you to engage in research that is not under the direction of another individual, and must authorize you to supervise or co-supervise the research of students registered in an undergraduate or graduate degree program, or postdoctoral fellows (e.g., thesis supervision and not supervision of regular course or laboratory assignments).
- **For institute and college faculty**, the position must permit you to engage in research-related activities that are not under the direction of another individual.
- You must engage in research in natural resources, applied sciences or engineering.
- You must actively be conducting research in the project. Projects where the primary academic partner is serving only in an advisory or consultancy role in the consortium will not be considered.
- The research being conducted for the project proposal must align with the field of research that the academic partner is responsible for at the academic institution.
- You must not have been barred from applying to NSERC, SSHRC, CIHR, MSFHR or any other research funding organization, for reasons of breach of standards of ethics or integrity (including financial or scientific misconduct).
- If you live abroad or hold a position of any kind outside of British Columbia, you must spend a minimum of six months per year at an eligible British Columbia institution.
- You are not eligible to hold a Ignite grant for leave periods beyond one year from your British Columbia institution, unless you spend a minimum of six months per year at another eligible British Columbia institution.
- Your salary must not be paid out of NSERC, SSHRC, or CIHR grant funds, except for Scientific Directors of Networks of Centres of Excellence (NCE).
- Applicant academic members working under another academic member cannot be paid a salary or consulting fee from the grant funds if their status makes them eligible to apply for funding independently.

3.3 Industry Partner Requirements

- In general, an industry partner is defined as a British Columbia-based business providing products or services that derives the majority of its revenues from the sale of these products and services and not from government aid. Preference is given to industry partners that are either end users or capable of market validation.
- Multinationals may be eligible if they have commercial activities that take place in British Columbia, such as research and development or manufacturing related to the proposed project.
- Foreign firms may be eligible as a partner, provided an eligible British Columbia-based private sector partner plays a major role in the project and will exploit the research results for the economic benefit of British Columbia.
- Public utilities in British Columbia.



- Start-up companies (companies in the research and development phase) that have sound business plans and secure financial backing may be accepted as industry partners. However, they must demonstrate that they have the financial, managerial, and strategic business capability to exploit the research results. If a start-up company is serving as the primary industry partner, it is highly recommended that an additional industrial partner that is either an end user, first customer, channel partner or capable of market validation also be included in the consortium.

3.4 Researcher-Owned Companies

A researcher's own consulting company or sole proprietorship is not eligible as an industrial partner to collaborate on a project in which the researcher is the primary applicant or a co-applicant. Situations where the researcher is a part owner must be able to provide evidence that they are at arm's length and there will be an objective assessment of the project's progress. The company is usually considered eligible if the following conditions are met:

- There is significant investment by sophisticated investors, indicating that there has been an objective assessment of the commercial potential of the research and the company's viability.
- The company has its own facilities, physically separated from the postsecondary institution researcher's laboratory (e.g., located off campus or in a postsecondary institution incubator facility).
- The company employs its own professional staff, apart from the postsecondary institution personnel; this staff is able to receive and incorporate the results of the postsecondary institution research into company operations.
- The company is under the effective day-to-day management control of someone other than the postsecondary institution researcher.
- The company has a board of directors with external members (e.g., some of those members, including the Chair of the Board, are at arm's length).
- The commercial activity conforms to the postsecondary institution's established policies relating to the disclosure of commercial interest and conflict of interest.
- The postsecondary institution is prepared to ensure that the academic interests of students and postdoctoral fellows are protected.



4.0 How to Apply

The application process for the Ignite program competition is composed of two mandatory stages:

1. Submission of a Letter of Intent (LOI)
2. Submission of a full proposal, by invitation only

4.1 Letter of Intent (LOI)

Letters of Intent must be submitted via email to Innovate BC by the competition deadlines outlined in Section 1.0

- Please use the LOI form for the current intake round provided at innovatebc.ca/ignite
- Submit one electronic copy in PDF or MSWord format to: programs@innovatebc.ca
- Please use Calibri font, size 10
- The LOI must not have appendices or attachments. If applicants believe that additional information is required to prove that their project meets all the required criteria, this material should be referenced in the LOI. If additional information is included with the LOI, it will not be forwarded to evaluators.
- The LOI must be signed and acknowledged by the Primary Academic Partner and the Primary Industry Partner as listed on the application. Where required by the university, signatures from the appropriate authority at the academic institution must also be obtained.
- An email acknowledgement will be sent once the LOI is received. If you do not receive a confirmation email, please contact Innovate BC to verify that your LOI has been received.
- It is anticipated that approximately 30-40% of LOI applicants will be invited to submit a full application

4.2 Full Proposal

Full proposals are invite-only, based on an evaluation of the LOI. Full applications must be submitted by the competition deadlines outlined in Section 1.0. The number of Ignite awards available is dependent on several factors, including the total funds available for the program and the award value for each successful award recipient. Innovate BC anticipates approximately 7 projects will be funded per year.

Full Proposal Elements

Once invited by Innovate BC to do so, applicants will use the full proposal application form provided in the invitation. The proposal asks applicants to include several elements including a research and development plan, details about consortium members, detailed budget, and a robust market and commercialization plan. All elements will be assessed in detail by an expert in a relevant field. Applicants must ensure that they include all information relevant to the evaluation of the project including, but not limited to:

- Technical description of the technology (products and services)
- Industry competition



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- Industry analysis including potential customers
- Market application
- Business model and commercialization strategy
- Potential challenges and risks (including anticipated reaction of large competitors and market roll out risks)
- Research and commercialization timeline and milestones
- Detailed budget and supporting documentation
- Letters of support

The full proposal requires a letter of support from a leader in industry, another user community, or an expert in commercialization. The leader could be an individual from within or outside the province with the expertise to comment on the potential of the team and the proposed project to provide significant benefit to British Columbia. If necessary, the letter may be written by a member of the consortium if, for example, the consortium member is a potential first customer.

Though only one letter of support is required, proposals can include a maximum of two additional letters that comment on the potential of the consortium and the proposed project to provide significant benefit to British Columbia. The letter(s) should be addressed to: Ignite Review Panel c/o Innovate BC.

Applicants may also request in a cover letter that some individuals or companies not be involved in the review of your application. Such requests will be taken into consideration.

Signatures

The full proposal requires the authorized signatures of the primary academic partner, primary industry partner, co-applicants and institutional authorities including department heads, Vice President of Research and where the institution requires it, the Dean of the Faculty.

5.0 Evaluation Process

5.1 Letter of Intent (LOI) Evaluation

- Review by Innovate BC for completeness of required information and eligibility
- Evaluation by volunteer review panel for consideration

Each LOI must include all qualifying criteria. LOIs will be reviewed for completeness, eligibility, and relevance to program objectives. If any required information is missing, the applicant may be contacted and arrangements must be made with Innovate BC to provide the missing information in a timely manner. Failure to provide an LOI containing all required information by the deadline may result in disqualification of the submission. LOIs are evaluated by a review panel that makes recommendations on which LOI applicants will be invited for a full proposal.



Letters of Intent will be evaluated on the following criteria:

- Quality of the project – includes clear and focused research objectives and achievable milestones. Demonstrates the project is innovative, revolutionary and/or a significant leap forward compared to the present state of art. Project must solve a significant industry problem and provide clear benefits to BC.
- Capacity to execute the Innovation – includes a clear outline of roles and demonstrated alignment of goals across the consortium; demonstrates that both the academic and industry partners in the consortium have the right research, technical, engineering, market, financial, managerial, business, and legal expertise.
- Market for the Innovation – includes applicant’s knowledge of the market segment and customer needs, distinguishes the value proposition, and identifies whether a first customer has been engaged or secured.
- Commercialization Potential – includes a clear path to commercialization and demonstrates the likelihood to move the innovation to market within the 3-year timeframe
- Research & Development Plan | Commercialization Plan | Business Model
- Investment secured – includes whether the necessary matching funds have been attracted and the project budget is reasonable for the proposed research activities.

5.2. Full Proposal Evaluation (by invitation only)

- Review by Innovate BC for completeness of required information and eligibility
- Evaluation by subject matter experts
- Evaluation by volunteer review panel for consideration
- Recommendation for funding by review panel

A review panel and subject matter experts evaluate full proposals. The review panel makes final recommendations on which proposals may be considered for funding.

External reviewers and the Selection Panel evaluate all applications using the following five selection criteria, each criterion is of equal value:

Criteria 1 QUALITY OF THE PROJECT

- Demonstrates a clear and comprehensive description of the proposed technical innovation;
- Demonstrates that the project is solving a significant problem faced by industry and identifies clear benefits to industry and British Columbia;
- Demonstrates clear and focused research objectives and includes a work plan with appropriate methodology, timelines, and deliverables;



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- Demonstrates that the project is scientifically sound, technically feasible, and shows promise to generate new knowledge or to apply existing knowledge in an innovative manner; and
- Demonstrates that the innovation is new to BC and includes key features and benefits that are an advantage over the competition.

Criteria 2 MARKET FOR THE INNOVATION

- Demonstrates the applicant's knowledge of the market segment including market need, sufficient market size, market growth, and assessment of risks;
- Demonstrates a comprehensive industry assessment has been conducted and identifies whether any key competitors exist;
- Demonstrates the proposed innovation has key features and benefits that are an advantage over the competition and distinguishes the value proposition of the innovation;
- Demonstrates that a first potential customer has been identified (a "potential customer" is defined as a one that has been engaged to help determine market need);
- Demonstrates the likelihood to be adopted broadly and the advantages of its adoption by end user's relative to market competitors; and
- Demonstrates clear economic benefits to BC.

Criteria 3 CAPACITY OF CONSORTIUM

- Demonstrates a strong, lead champion with the capacity to guide the project to completion;
- Demonstrates personnel with the research, technical, managerial, financial, business, and legal expertise relevant to their respective industry that will enable them to move the proposed innovation to market within the 3-year timeframe;
- Demonstrates an Intellectual Property strategy for the proposed innovation that is appropriate for their respective sector or industry;
- Demonstrates shared goals and alignment across the consortium relevant to the respective industry;
- Demonstrates achievable milestones for each member; and
- Demonstrates that all members of the consortia contribute to the project (a reasonable and proportionate degree of involvement).

Criteria 4 COMMERCIALIZATION PLAN & BUSINESS MODEL

- Demonstrates an adequate financial and commercialization strategy with the capacity, resources, and expertise to move the innovation to commercial markets;



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- Demonstrates the applicants go-to-market plan includes the necessary equipment and infrastructure required to move the proposed innovation to market within the 3-year timeframe;
- Demonstrates the applicant has adequately identified and addressed the challenges and risks of commercialization (including technical challenges and anticipated reaction of large competitors); and
- Demonstrates a realistic and coherent timeline with achievable milestones and deliverables.

Criteria 5 INVESTMENTS SECURED

- Demonstrates that the need for the financial request from Innovate BC is reasonable for the project costs outlined in the budget;
- Demonstrates a reasonable level of commitment from matching funding partners to complete the proposed research and development;
- Demonstrates that any in-kind contributions being used to leverage Innovate BC Ignite contributions are essential to carry out the proposed research and development.

5.3 Review Committee

Members of the Ignite Review Panel consist of individuals with either academic, industry, business and/or government expertise relevant to the fields of natural resources and applied sciences. They may include professional researchers/academics, government, end-users of research and/or sector community members.

Full proposals are reviewed in full by subject matter experts with deep expertise in a particular area, usually relevant to the technical or business aspect of a proposal. Technical assessment services are provided in collaboration with the National Research Council of Canada Industrial Research Assistance Program (NRC-IRAP). These experts are only asked to give their opinion to the project as it relates to their particular expertise. The Review Panel utilizes the technical assessments to help inform their recommendations for funding.

All reviewers and technical assessors are obligated to follow the confidentiality and conflict-of-interest rules of Innovate BC.

5.4 Decision Process

The Ignite Review Panel will consider the recommendation from the subject matter experts and base their decision on the strategic goals of the Ignite Program and the present level of funding available. In some cases, projects may be approved with conditions. In those instances, Awardees are free to accept the conditions or decline the award. Recommendations to approve an LOI or full proposal by the Ignite Review Panel are final.



6.0 Award Terms and Conditions

The following list is not exhaustive, but provides several key terms and conditions:

6.1 Award Contracts

- The Ignite program funds research expenses incurred by the industry and academic collaborators to commercialize an innovation. The program does not fund companies directly. As such, the primary academic partner's institution will be required to administer the grant on behalf of the consortium.
- Successful applicants will receive an agreement outlining the terms and conditions of the Ignite award including details on reporting, milestones, and disbursements. The academic institution and primary academic partner will sign and return the agreement to the Innovate BC office within 30 days of receipt.

6.2 Disbursements

- Awardees are eligible to receive up to their maximum award amount, but every dollar disbursed will be on a 2:1 match. Up to 50% of the matched value may consist of approved in-kind contributions.
- Awards are disbursed in installments, based on pre-determined milestones and progress reports. There is a 10% holdback on the last installment, which is triggered by submission of an approved final report.

6.3 Budget

- None of the Awardee's income during the tenure of the project may be derived from another Innovate BC program or Innovate BC managed program.
- Applicants must identify awards and grants from all other organizations in their proposal. If awarded funding through Ignite, the Awardee must notify Innovate BC of any new awards and grants, changes to existing awards and grants, or changes to the submitted and approved budget during the entire term of the project.
- Only those expenses that are submitted in the proposal and approved by Innovate BC will be eligible and included in the funding agreement.

6.4 Reporting

- Awardees must submit annual progress reports outlining the progress of their project.
- As part of Innovate BC's ongoing impact assessment activities, brief survey questionnaires may be sent to Awardees from time to time.

6.5 Publicity

- Awardees must agree to allow Innovate BC to publicize the project for marketing and promotion purposes. Innovate BC will not publicize information that will compromise the commercialization process or the business.



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6.6 Ethical, Legal and Safety Approvals

- Projects must adhere to the established legal practices of the Province of British Columbia. Innovate BC reserves the right to determine if projects are within the legal guidelines. Failure to do so may result in the termination of the award.

6.7 Intellectual Property (IP)

- Applicants must identify any IP agreements in place for their innovation project at the time of application.
- The applicant is responsible for ensuring that IP agreements are in order and agreed to by all consortium members and relevant partners.
- IP agreements held by the Awardee must allow for results and reports to be released to Innovate BC on a confidential basis in accordance with the *Province of British Columbia's Freedom of Information and Protection of Privacy Act* in order to assess the progress of the project. Personal and commercially sensitive information is protected. Please visit the following website for more information:
http://www.qp.gov.bc.ca/statreg/stat/f/96165_01.htm

6.8 General

- Awards are based on the information provided by the Awardee during the application stage. If there are any substantive changes to the Awardee consortium or project, Innovate BC must be notified immediately and proposed changes to the proposal must be submitted in writing and approved by Innovate BC in order to proceed with continued funding. Failure to do so may result in termination and possible repayment of the award.
- Some funded projects may be selected for inspection and/or auditing each year.
- All documents submitted to Innovate BC become the property of Innovate BC and are subject to the *Province of British Columbia's Freedom of Information and Protection of Privacy Act*. Personal and commercially sensitive information is protected. Please visit the following website for more information:
http://www.qp.gov.bc.ca/statreg/stat/f/96165_01.htm

If you have questions about how FOI pertains to the Ignite program please contact Innovate BC for clarification.