



Technology Questionnaire

Completion of this questionnaire is **mandatory** if "Technology Commercialization" was selected for question 32 on the Business Scale-up and Productivity (BSP) Application. An asterisk (*) indicates a required field. Please ensure you have reviewed the Instructions (on page 6) and answered all questions that are applicable to your project. Unanswered questions cannot be assessed by Western Economic Diversification Canada.

DEFINITION OF INNOVATION

1. Indicate which definition(s) of innovation applies to your proposed project: (select best fit) *

An invention, new technology or new process that is not currently available in the marketplace.

Significant modifications to the application of an existing product, process or service that are applied in a setting or condition for which current applications are not possible or feasible.

An improvement in functionality, cost or performance over an existing product, process or service that is considered state-of-the-art or the current industry best practice.

INTELLECTUAL PROPERTY (IP) STRATEGY

2. Provide a brief description of your organization's IP portfolio and strategy, and explain why your IP strategy is appropriate for your innovation. (maximum 2000 characters including spaces). *

TECHNOLOGY READINESS LEVEL (7 OR HIGHER)

3. Select the appropriate technology readiness level (TRL) for your proposed innovation. *

TRL 9. Actual technology proven through successful operations.

At this level there is actual application of the technology in its final form and under real-life conditions, such as those encountered in operational test and evaluations.

TRL 8. Actual technology completed and qualified through test and demonstration.

At this level the technology has been proven to work in its final form and under expected conditions.

TRL 7. Prototype ready (form, fit and function) for demonstration in an appropriate operational environment.

At this level the prototype should be at planned operational level and is ready for demonstration of an actual prototype in an operational environment.

3a. Demonstrate that the proposed innovation is at TRL 7 or higher by describing the testing conducted to date, test environment; and past and present technical challenges. Your description should include: a description of the operational environment(s) in which the prototype has been tested; or evidence that a prototype of the proposed innovation is ready for testing in an operational environment at time of application submission; technical challenges that arose and were overcome; and technical challenges remaining to be addressed in order to reach commercialization. (maximum 2000 characters including spaces) *

TECHNOLOGY

4. Provide a technical description of your technology. This description should clearly describe the functions, key specifications, and outputs that best represent your technology. (maximum 1000 characters including spaces) *

4a. Describe the technology resources (e.g. equipment, external contractors, partnerships, etc.) that are in place to complete the project. (maximum 1000 characters including spaces) *

4b. What further development, technical activities, or other resources/partnerships required to bring the technology to market? (maximum 1000 characters including spaces)

4c. Describe all quality control procedures and production standards that are in place. Describe how you will manage parts, inventory and the overall integrated system, as applicable. (maximum 4000 characters including spaces) *

COMPETITIVE ADVANTAGES AND LEVEL OF ADVANCEMENT OVER EXISTING TECHNOLOGIES/ OPERATING CONDITIONS

5. Describe in detail the competitive advantages and level of advancement over existing technologies/ operating conditions. Include the following:

- improvements (minor or major) over existing technologies/ operating conditions or substitutes using direct comparison;
- how the proposed innovation will create competitive advantages in existing market niches or market spaces; and
- where appropriate, name existing technologies as well as competitors.

(maximum 1000 characters including spaces) *

Empty response area for question 5.

MARKET RISK STRATEGY

6. What are the risks associated with bringing the technology to market, including any technical barriers to implementation, and other issues (e.g. certification, regulatory, standards compliance, environmental, safety of application, etc.)? What is the plan to mitigate the risks? (maximum 2000 characters including spaces) *

Empty response area for question 6.

7. You may include a brief document (e.g. schematic, diagram, picture) to a maximum file size of 10MB that will assist in explaining the technology and/or describing the remaining work that needs to be completed to commercialize the technology.

INSTRUCTIONS for completing the Technology Questionnaire

Question 2.

Intellectual property is defined as an “intangible creation of the mind that can be legally protected”. Legal protection includes several core categories: patents (protects your invention from outright thievery), trademarks (adopting a trademark as a brand name keeps it, and its reputation, all yours), copyrights (holding copyright shields protects your artistic expression from copying) and industrial rights (registering an industrial design protects the non-functional design features of a product). Two other categories of rights are relevant to an IP strategy: trade secrets (keeping a formula or manufacturing process confidential safeguards it against imitators) and contractual rights (licensing the right to use someone else’s invention). Unlike the rights described above, these can only be enforced against people with whom you have a contractual relationship. Please provide us with your ip strategy including a description of the different kinds of IP protection you hold, considering the above key elements and describing why your strategy is appropriate for your technology.

Question 3a.

Your description should include: a description of the operational environment(s) in which the prototype has been tested; or evidence that a prototype of the proposed innovation is ready for testing in an operational environment at time of application submission; technical challenges that arose and were overcome; and technical challenges remaining to be addressed in order to reach commercialization.

Question 4.

Responses should address the technical specifications of your proposed product/service/process highlighting, if appropriate, key specifications that distinguish your technology from existing ones.

Question 4a.

Provide information on the technology resources that are currently in place in order to successfully complete the project. If additional resources are required, describe them and your plan for securing these resources (acquisition, partnerships, external contractors, etc.).

Question 4b.

From a technical perspective, describe the remaining challenges and/or R&D activities to be completed prior to being market ready. Describe your plan for addressing these outstanding items including technical resources (in-house or to be hired), partnerships/licensing strategies (private sector, universities, research centres ...), facilities (equipment, laboratory ...), estimated level of effort and timeline. You can describe these elements in relation to your product roadmap.

With reference to your project plan, please provide information on the technology resources that are currently in place in order to successfully complete the project. If additional resources are required, describe them and your plan for securing these resources (acquisition, partnerships, external contractors, etc.).

Question 4c.

A description of activities and planning that have been carried in anticipation of full-scale commercial production should be detailed. Provide details on additional activities and planning that would be required before commercial production could begin. If production partnerships are in place or will be required or if outsourced production will be used, this should be described as appropriate.

Question 5.

As part of your description, include the following:
improvements (minor or major) over existing technologies/ operating conditions or substitutes using direct comparison;
how the proposed innovation will create competitive advantages in existing market niches or market spaces; and
where appropriate, name existing technologies as well as competitors.

Question 6.

As appropriate, the described risks may be short or long term and in addition to their applicability to market entry, can also include in-market risks related to maintaining market position and market share. As directly related to technology issues for development and/or implementation, risk associated with commercialization activities, market risks, financial risks and competition risks can be referenced. If there are outstanding certifications, licenses, and approvals that could present a barrier to market entry, these should be detailed, along with the nature and degree of any related technical issues that need to be addressed. The mitigation strategy for each of the described risks and any residual risk should be described.