**Commercialization Pathway Evaluation Matrix Definitions**

To be able to complete the self-assessment form

* Read each of the “Stage” descriptions provided in the columns (i.e. “Stage 1”, “Stage 2”, etc.), and choose the most relevant description that best describes the current technology status.
* Indicate your selection by marking the associated check box in the rightmost column.

*Note: It is common for technologies to be at different stages of development and commercialization for each row. Variation across different rows serves as an indicator for applicants and CCEMC regarding potential opportunities to move the technology through subsequent stages of development.*

Section 1: Technical Readiness

This portion of the self-assessment will look at the technical aspect of the project; identifying where in the technology is in relation to TRL stages, technology design, and development.

| **Row** | **Stage 1** | **Stage 2** | **Stage 3** | **Stage 4** | **PROJECT STAGE** |
| --- | --- | --- | --- | --- | --- |
| **TECHNICAL** | | |  |  |  |
| Technology Understanding | | | | | |
| 1 | The technical feasibility has been demonstrated with a standalone prototype providing a solution to an identified problem (proof of concept). | The prototype is developed and is suitable for target environments relevant to their anticipated use (tested in field). | The system is developed and validated in a pilot operational environment (optimized for field). | The system is fully operational in at least one commercial site (demonstration facility). | Stage 1  Stage 2  Stage 3  Stage 4 |
| Stage of Development | | | | | |
| 2 | Thorough understanding of the essential characteristics and behaviors of the technology  Technical feasibility for developing the technology has been communicated  Between TRL 3 and 4 | Thorough understanding of the essential characteristics and behaviors of the technology  Lab/bench prototype has been developed  Engineering feasibility at the lab / bench scale has been demonstrated  Between TRL 4 and 5 | Field prototype is developed, initial testing completed, field demonstrations started  Engineering feasibility in the field has been demonstrated  Initial engineering feasibility started for commercial environments  Market validation and verification started  Between TRL 7 and 8 | Commercial prototype developed and demonstration initiated  Engineering supports are in place  Market validation and verification fully understood  TRL 9 or beyond | ☐ Stage 1  ☐ Stage 2  ☐ Stage 3  ☐ Stage 4 |
| GHG Reduction in Alberta | | | | | |
| 3 | Theoretical understanding of the technology's GHG reduction in Alberta | Practical understanding of the technology's GHG reduction in Alberta based on preliminary tests | Quantitative measure of the technology's GHG reduction in Alberta per operational site | Quantitative measure of the technology's GHG reduction in Alberta per operational site | Stage 1  Stage 2  Stage 3  Stage 4 |
| GHG Reduction in the Broader Market | | | | | |
| 4 | Theoretical understanding of the technology's broader GHG reduction potential | Practical understanding of the technology's broader GHG reduction potential based on preliminary tests | Quantitative measure of the technology's broader GHG reduction based on number of potential operational sites globally | | Stage 1  Stage 2  Stage 3 / 4 |

Section 2: Commercial Readiness

This portion of the self-assessment will look at the commercial aspect of the project; identifying where in the business is in relation to market understanding, business model, project team, and business strategy.

| **Row** | **Level 1** | **Level 2** | **Level 3** | **Level 4** | **PROJECT STAGE** |
| --- | --- | --- | --- | --- | --- |
| **MARKET UNDERSTANDING** | | | | | |
| 5 | Market position is defined, but not fully understood | Market position is defined and market potential is quantified | Market position is well defined, quantified and additional application(s) are being considered | Market position is defined and positioned to be market leader or influencer in the market niche identified | Level 1  Level 2  Level 3  Level 4 |
| 6 | Competitors (direct and indirect) are identified, but not fully understood | Competitors (direct and indirect) are identified and understood  Competitive advantage of technology is understood | Competitors (direct and indirect) are well understood  Competitive advantages of technology are defined | Competitors (direct and indirect) are well understood  Competitive advantages of the technology are defined  The strategic market position has been confirmed | Level 1  Level 2  Level 3  Level 4 |
| 7 | Commercial potential communicated, but not verified through market research | Commercial potential communicated and verified through market research | Commercial potential communicated and verified through market research  List of strategic partners has been identified | Commercial potential communicated and verified through market research  On-going discussions with interested strategic partners | Level 1  Level 2  Level 3  Level 4 |
| 8 | Regulatory hurdles are defined, but not fully understood | Regulatory hurdles are defined and understood | Regulatory hurdles have been identified and addressed | | Level 1  Level 2  Level 3 / 4 |
| 9 | IP strategy and plan identified, not fully defined  Literature review is complete and technology is innovative | IP strategy and plan defined, initial implementation  IP protection plan:  *If patent, patentability assessment is complete, patent application is filed, and a forecast of the patent budget is provided*  *If trade secret, plan to maintain confidential information*  *Copyright and Trade-mark protection as applicable* | IP strategy and plan well defined and continue implementation  IP protection plan:  *If patent, patents awarded in primary jurisdictions*  *If trade secret, plan to maintain confidential information*  *Copyright and Trade-mark protection as applicable* | | Level 1  Level 2  Level 3 / 4 |
| **BUSINESS MODEL & PROJECT TEAM** | | | | | |  |  |  |  | **BUSINESS MODEL & PROJECT TEAM** |
| 10 | Business idea[[1]](#footnote-1) is in its initial concept, not well defined or understood | Business idea is defined, preliminary validation completed | Business idea well defined, third party validated and attractive value proposition | Business idea well defined, third party validated, and significant value proposition is confirmed | Level 1  Level 2  Level 3  Level 4 |
| 11 | Business model[[2]](#footnote-2) not in place | Business model is basic | Business model is well defined, unproven | Business model is well defined and proven | Level 1  Level 2  Level 3  Level 4 |
| 12 | Revenue model[[3]](#footnote-3) not in place | Revenue model is basic | Revenue model is well defined, unproven | Revenue model is well defined and proven | Level 1  Level 2  Level 3  Level 4 |
| 13 | Distribution model[[4]](#footnote-4) not in place | Distribution model is defined, but not fully understood | Distribution model is well defined, unproven | Distribution model is well defined and proven | Level 1  Level 2  Level 3  Level 4 |
| **PROJECT TEAM** | | | | | |
| 14 | Letter of commitment from CEO, Faculty Dean, or business leader (the individual responsible for allocating resources) to ensure adequate resources are dedicated to the proposed project.  Project manager identified  Project team identified and is highly technical  No technical advisors in place  No business advisors in place | Letter of commitment from CEO, Faculty Dean, or business leader (the individual responsible for allocating resources) to ensure adequate resources are dedicated to the proposed project.  Project manager in place  Project team is highly technical with operational experience  Technical advisors in place  Business advisors in place  Management team needs identified but not in place | Letter of commitment from CEO, Faculty Dean, or business leader (the individual responsible for allocating resources) to ensure adequate resources are dedicated to the proposed project.  Project manager in place  Project team is highly technical with operational experience  Technical advisors in place  Business advisors in place (in-house)  Management team in place (in-house) | | Level 1  Level 2  Level 3/4 |
| **MARKETPLACE STRATEGY** | | | | | |  |  |  | **BUSINESS STRATEGY** |
| 15 | Marketing strategy not in place | Marketing strategy being developed | Marketing strategy implementation initiated | Marketing strategy implemented | Level 1  Level 2  Level 3  Level 4 |
| 16 | Branding not in place | Preliminary brand strategy developed | Brand elements developed (e.g. logo, visual identity) | Brand identity has been implemented | Level 1  Level 2  Level 3  Level 4 |
| 17 | Marketing and communications not in place | Marketing and communications is sporadic with no plan | Marketing and communications plan in place | Market and communication corporate / product messages executed | Level 1  Level 2  Level 3  Level 4 |
| 18 | Networking and public relations plan not developed or in place | Networking and public relations is sporadic with no documented plan | Networking and public relations is sporadic with a documented plan in place | Networking and public relations implemented consistently with documented plan | Level 1  Level 2  Level 3  Level 4 |
| 19 | Production plan not in place | Preliminary production plan developed | Pilot production facility is secured and/or outsource partner has been contracted | Establishment of commercial production facility and/or outsource partner is fully operational | Level 1  Level 2  Level 3  Level 4 |
| 20 | Customer portfolio is defined, but not fully understood | Customer portfolio is defined, and understood  Initial customers (early adopters) have been identified | Customer portfolio is defined, and understood  List of potential customers complete  Initial customers have been engaged to provide feedback (e.g. attend and evaluate demonstrations) | Customer portfolio is defined, and understood  List of potential customers complete  One third party commercial adopter committed to an operational trial  Business development activities initiated | Level 1  Level 2  Level 3  Level 4 |

1. A business idea is a concept which can be used for commercial purposes (<http://en.wikipedia.org/wiki/Business_idea>) [↑](#footnote-ref-1)
2. A business model is the structure a business chooses to be able to operate daily, generate revenue and eventually make a profit (<http://www.investopedia.com/terms/b/businessmodel.asp>) [↑](#footnote-ref-2)
3. A revenue model is a structure within the business model that outlines how the business will generate revenues and provide a framework for generating long term financial projections of the “company’s profit potential and operations” (<http://www.businessdictionary.com/definition/revenue-model.html>) [↑](#footnote-ref-3)
4. A distribution model is “The manner in which goods move from the manufacturer to the outlet where the consumer purchases them” (<http://www.entrepreneur.com/encyclopedia/distribution-models>) [↑](#footnote-ref-4)