



BUILDING FOR THE FUTURE: INNOVATIVE CONSTRUCTION FOR HOUSING AFFORDABILITY

STAGE 1 – APPLICANT GUIDE



Housing Supply Challenge

TABLE OF CONTENTS

Introduction	3
Problem Framing	4
Why Construction Innovation	4
Context	5
Challenge Statement	6
Key Clarifications	6
Eligibility Criteria	7
Challenge Structure	8
Funding	9
Timeline	10
How to Apply	11
Application Requirements and Evaluation Criteria	11
Evaluation Panel and Selection Process	14
Housing Supply Challenge Applicant Support Program	14
Appendices	15
Appendix A: Building for the Future — Terms and Conditions	15
Appendix B: Challenge Statement Definitions and Examples	21
Appendix C: People-Centered Design — Equity, Diversity, Inclusion and Reconciliation	26
Appendix D: Climate Compatible Housing	29
Appendix E: Application Portal Questions	33

INTRODUCTION

The Housing Supply Challenge was announced in the federal Budget 2019 with the overarching objective of reducing barriers to housing supply and affordability. Working to achieve CMHC’s corporate aspiration, that by 2030, everyone in Canada has a home that they can afford and that meets their needs, the Challenge offers up to \$300 million in funding for new ideas and solutions that will help more people find an affordable place to call home. The Housing Supply Challenge will, through a series of barrier-specific Rounds, encourage and reward a diverse portfolio of solutions that break down barriers to housing supply. The COVID-19 pandemic has demonstrated the importance of equitable access to housing. Solutions generated in the Housing Supply Challenge have the potential to play an important role to ensure a smooth economic recovery while improving the well-being of all Canadians.

Building for the Future: Innovative Construction for Housing Affordability (“Building for the Future,” “the Construction Round”) is the fourth Round to launch under the Housing Supply Challenge. It seeks to address construction-related barriers to housing supply by funding activities that support the adoption, and preparation for replication and scaling, of construction processes, techniques, systems, or materials in order to accelerate their use. The Challenge will prioritize solutions that will accelerate the creation and preservation of housing that is affordable, climate compatible, and meets people’s needs. The Round consists of three stages, Stage 1: concept development and initial application, Stage 2: design and feasibility plan and final application, and Stage 3: implementation.

This Applicant Guide will assist you by:

1. providing an overview of the program;
2. informing you of key dates and deadlines;
3. informing you of Terms and Conditions;
4. connecting you with useful information, links, and resources including information about the Housing Supply Challenge **Applicant Support Program**¹ (see **Applicant Support**); and
5. outlining how to apply using the application form.

The requirements in this Applicant Guide apply to Stage 1 and Stage 2, except as otherwise stated or as may be changed by a later contribution letter, agreement, or any requirements to follow for Stage 2.

CMHC has partnered with Evergreen — a national not-for-profit organization helping make cities flourish — to deliver the Housing Supply Challenge Support Program for Housing Supply Challenge participants. More information on the Housing Supply Challenge Support Program, can be found in the Applicant Support Program section of this guide.

¹ <https://futurecitiescanada.ca/portal/our-focus/hsc-support-program/#round-4>

PROBLEM FRAMING

More than 1.7 million households in Canada² are without housing that they can afford and that meets their needs. The Housing Supply Challenge seeks to address this crisis through reducing and eliminating barriers to housing supply. While previous Rounds focused on topics including data solutions to improve decision making, predevelopment processes, and supply chain issues in Northern and remote housing, the Building for the Future Round focuses on supporting the activities required to adopt, or prepare to replicate and scale, the use of innovations in housing construction and renovation.

This Round addresses barriers to construction by seeking innovative construction processes, techniques, systems, and materials that have **already completed early stages of testing and need support to prepare for replication and scaling**. In this way, this Round will ensure that innovative ideas are adopted and put into use on a local and national scale in order to create and preserve the type of housing supply that Canadians need now and in the future.

Housing construction and renovation in Canada face many barriers including high costs, lengthy processes, and project complexities. The construction, maintenance, retrofitting and renewal of the housing supply involves numerous stakeholders and experts, and considerable investments.

Based on our preliminary research, there are numerous disincentivizing barriers to construction innovation that create major systemic impacts on the construction industry. These barriers include, but are not limited to, access to materials and resources, complexities in retrofitting existing housing supply, the complexity of project delivery, high costs and sunk costs, and knowledge management and sharing.

Our research also showed that there are many innovative construction processes, techniques, systems, and materials that have been explored, some demonstrated, and some adopted in limited capacities, but which have not yet been broadly replicated or scaled to their potential. The reasons for this were often specific to the type of innovation and the broader context. In response, **this Challenge supports activities that will bridge the gap between the early stages of testing an innovative solution and its broad use, by supporting the preparation that is required for replication and scaling**. By the end of the Challenge timeline, the solution and surrounding contextual requirements will be well positioned for widespread adoption.

Why Construction Innovation

Housing supply cannot be created or preserved without the processes, techniques, systems, and materials that construct and maintain housing. By supporting the adoption, replication, and scaling of innovations in construction processes, techniques, systems, and materials, this Challenge will increase stakeholders' capacity for building and renovating housing to ultimately impact housing supply. While there are many possible innovations to construction, this Challenge specifically seeks solutions by organizations and individuals that will support the creation and preservation of an affordable and climate-compatible housing supply that meets people's needs. Building for the Future supports promising solutions by funding activities that help these solutions be more impactful and more broadly used.

² Core Housing Need, 2021 Census.

Source: <https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/dv-vd/housing-logement/index-en.cfm>

Some innovations in processes, techniques, systems, and materials have the potential to decrease the cost of housing in the short term (for example, efficiencies in processes that decrease the costs of constructing and maintaining homes) while others have the potential to decrease the costs for residents in the long term (for example, climate adaptive materials that reduce energy costs).

Furthermore, in order to achieve a net increase in housing supply, existing housing must be preserved so that stock is not lost faster than it is created: innovations in the areas of maintenance and renewal can help accomplish this. Upgrading homes so that they better meet the needs of their occupants can also increase housing supply that is specific to the needs of an underserved population.

Context

There are several contextual factors that impact the creation and preservation of housing supply in Canada. These factors, which represent the uniqueness of Canada, indicate the importance of innovations in construction processes, techniques, systems, and materials that address the specific requirements of the people and region(s) for whom they are created.

The variety of unique climatic conditions and varying infrastructure, supply, and resources, as well as regulatory dependencies that are specific to a region create a number of difficulties in scaling new construction and retrofitting solutions. Through this Challenge, there is an opportunity to replicate innovations with any necessary adjustments, to meet the specific housing needs of a region. Activities relating to adapting an innovative process, system, technique, or material to replicate it in another region, or more broadly across Canada when possible, can be supported through this Challenge.

People in Canada have diverse needs, so ensuring the availability of housing types that match the specific needs of a community, cultural group, ability, lifestyle, or stage of life opens opportunities for innovations that are created by, or respond to, the specific housing needs of equity-seeking groups. Activities related to modifying processes, systems, techniques, or materials to suit the needs of a specific population to enable replication can be supported through this Challenge. Activities that help accelerate the adoption of innovations created for or by these groups to address their needs are also relevant to this Challenge.

Indigenous-led solutions that provide direct benefit to communities impacted, and solutions that take steps towards reconciliation are welcome to apply.

CHALLENGE STATEMENT

The Challenge seeks innovative construction processes, techniques, systems, and materials that will increase the supply of housing that is affordable, climate resilient, and meets people’s needs.

Key Clarifications

The full Building for the Future Round evaluation criteria can be found in the [How to Apply](#) section.

Focus on supporting scalability and replication: Please note that the evaluation will be focused on the innovations that align with the Challenge statement and Applicants who are looking to take next steps towards being able to replicate, scale, and adopt their ideas. Scaling and replication can be approached in a number of ways, including adapting processes, techniques, systems, and materials. See further details and examples in [Appendix B](#).

Numbers of units: The number of housing units created in the Challenge time frame is not part of the evaluation. A building (or multiple units) may be created or renovated as part of Challenge activities if the purpose is to test the refinements, adaptations, or new ways of applying a process, technique, system, or material solution for it to be replicable or scalable. For processes, techniques, systems, or material solutions that are being newly adopted, units may be built as part of the testing of replication and scaling activities during the implementation phase.

Affordable housing: In the context of this Challenge, “affordable housing” can include housing provided by the private, public, and non-profit sectors (that is, it does not exclusively relate to government-subsidized housing). It also includes all forms of housing tenure: rental, ownership, and co-operative ownership, as well as temporary and permanent housing.

There are multiple measures that Applicants can use to describe how their solution will make an impact on affordability. This includes options to explain how the solution will make a long-term impact on affordability for the resident (for example, through energy efficiencies) as well as the option to describe affordability in relation to median market rent or measures of deep affordability that address core housing needs for vulnerable populations. It is important to note that this Challenge does emphasize the importance of the long-term operations of any units built and this relates to ensuring that the units have enough quality to last.

Readiness level: The processes, techniques, systems, or materials supported in this Round are expected to have already completed some prototyping and testing and may be in use in a limited capacity. The Stage 2 Incubation phase supports can be used to explore potential applications for the solution (for example, adaptations for new climatic regions or user groups by consulting with housing providers for vulnerable populations to explore how the solution would need to be adapted in order to be adopted; seeking regulatory permissions to scale to new communities; researching and developing business and marketing plans to support further adoption in the market; etc.). Learnings about impacts, improvements, and challenges may be shared and outcomes documented.

Training programs: Solutions that primarily seek to develop training programs will not be eligible for this Round. However, solutions may include training costs as eligible expenses in their budget if these costs will be necessary to complete the Challenge activities, ensure the success of the solutions application (for example, ensuring that the solution will be applied correctly in day-to-day use to maximize energy efficiency), or to ensure the long-term operations of any units built as part of the Challenge. See the **Eligibility** section for information regarding when training activities are considered an appropriate use of funding.

Regulatory dependencies: As is the case for training programs, solutions that primarily seek to address regulatory dependencies will not be eligible for this Round. However, solutions that require special regulatory permissions to address the dependencies may include related expenses for time and activities needed to do so as part of replicating, scaling, or adopting the solution.

A detailed list of Challenge term definitions, and examples can be found in [Appendix B](#).

ELIGIBILITY CRITERIA

In order to be considered for and potentially receive funding under the Challenge, an Applicant must submit an application and must meet the following eligibility criteria:

1. Be a legal entity duly incorporated and validly existing in Canada, including the following:
 - For-profit and not-for-profit organizations (for example, companies, associations, research centres, etc.)
 - Indigenous governments, organizations, and groups
 - Canadian post-secondary institutions
 - Provincial, territorial, municipal, local, and regional governments
2. Submit no more than one application per Round of the Housing Supply Challenge.
3. Not be in default under any previous Stage or Round of the Housing Supply Challenge, including but not limited to the Building for the Future Round.
4. Not be in receipt of any other funding from CMHC for a purpose similar or substantially similar to the purpose of the Building for the Future Round. Please note that stacking is permitted, but duplication is not.
5. Employees of CMHC, Evergreen, Innovation 7, and anyone connected with the evaluation of the applications for the Housing Supply Challenge and all its Rounds are prohibited from entry, whether as Applicants or as members of an Applicant's team.

Note: The "Applicant" is the legal entity that is responsible for receiving and distributing funding to realize the solution. Multi-sector teams and partnerships are encouraged. Any arrangements between the Applicant and its team/team members are strictly the responsibility of the Applicant. Team members can work with multiple Applicants, but an Applicant (legal entity) can only submit one solution.

Eligibility criteria for a Stage 1 submission

In addition, the application must meet the following requirements:

- The solution proposed in the Stage 1 submission must be relevant to the Building for the Future Challenge statement.
- All sections of the application must be completed.

CMHC will verify the eligibility of each Applicant and application based on the above criteria. Eligible solutions will then proceed to evaluation. Please note that solutions that focus solely on building units will be deemed ineligible.

CHALLENGE STRUCTURE

The Building for the Future Round follows a stage-gated approach. At each stage, proposed solutions will be reviewed against evaluation criteria³, and selected Applicants will be invited to move to the next stage. Different financial and non-financial incentives will be available to successful Applicants at each stage.

Stage 1: Concept Development

Stage 1, Concept Development, will open on December 1, 2022, and close on April 13, 2023, at 2:00 p.m. ET. Interested participants will have four months to develop their initial proposal consistent with the Building for the Future Round Challenge statement and in accordance with applicable Terms and Conditions. During this stage, CMHC and Evergreen will facilitate events through which participants may choose to connect and collaborate with one another. Stage 1 is open to all eligible participants.

A panel of experts will use the criteria outlined in this guide to assess Stage 1 applications. Up to 25 Stage 1 applications will be recommended for shortlisting and then will be eligible to proceed to Stage 2.

Stage 2: Design & Feasibility

Stage 2, Design and Feasibility, is only open to shortlisted Stage 1 applications. Shortlisted Applicants will receive a Stage 2 Applicant Guide, including Stage 2 evaluation criteria, Terms and Conditions, and may be eligible for no more than \$150,000 in Incubation Funding (see below for details). Eligible Applicants for Stage 2 will have five months to develop their Stage 2 application package.

A panel of experts will evaluate the Stage 2 submissions against the relevant Stage 2 evaluation criteria. The Stage 2 evaluation panel may then recommend Implementation Funding for multiple solutions that address the objectives and are consistent with the terms and conditions of the Building for the Future Round. Up to \$36.25 million in Implementation Funding will be dispersed among the selected recipients.

Stage 3: Implementation

Stage 3, Implementation — the final stage of Building for the Future, is only open to the funded Stage 2 applications that were selected. Implementation will take place over twelve months, and up to \$36.25 million in Implementation Funding will be dispersed among the selected recipients.

³ Please note that applicants in default to CMHC may be denied funding on that basis.

Funding

Stage 2: Incubation Funding

Applicants shortlisted for Stage 2 would be eligible to receive no more than \$150,000 in Incubation Funding to fund the further development of their solution in support of the Stage 2 application. Notifications will be sent to successful Applicants after the Stage 1 evaluation process is complete. Receipt of funding would be subject to the terms and conditions set out in the documentation agreed to between the Applicant and CMHC after shortlisting.

The following are examples of eligible and ineligible uses of Incubation Funding. Participants should consider these lists in developing their applications. This list is not exhaustive or comprehensive.

Eligible activities are those associated with replication, scaling or adoption of the solution. These may include:

- research (for example, scaling opportunities);
- data collection or acquisition (for example, data acquired while testing a prototype);
- testing construction systems (for example, testing a building component in a wall);
- public engagement and consultation (including honoraria for consultation relating to reconciliation and community consultation costs);
- obtaining insurance, consulting or professional services related to the development of the solution (for example, testing with industry members who will use or be impacted by the solution);
- certification processes (if timeline is possible within the Challenge);
- administrative costs (for example, staff time spent addressing regulatory dependencies);
- training (for example, applicable if required for the Applicant`s solution to be feasible and viable, to contribute to reconciliation efforts, to build skills for working with vulnerable populations, to provide educational support to residents who need to learn how to use a new climate compatible housing components in order for the solution to be fully operational);
- business and/or marketing plan development;
- development of plans for prototyping and demonstrating an adaptation of a construction innovation; and
- presentation costs for demonstrating a construction innovation.

Ineligible activities include tasks related to the solution that were completed prior to the signing the Stage 2 Contribution letter, advocacy products or activities, patent submissions, development of a training program (as the primary solution), activities relating to addressing regulatory dependencies (as the primary solution), etc.

Stage 3: Implementation Funding

Applicants selected at the end of Stage 2 may be eligible to receive funding to implement the selected solution by scaling, replicating, or adopting their selected process, technique, system, or material.

Timeline

Challenge Round Structure — Key Dates

STAGE 1	Applicants Develop Initial Submissions	Submission Deadline	Evaluation and Shortlisting
Duration	Launch: December 1, 2022	April 13, 2023, 2:00 p.m. ET	April 2023 – July 2023
	19 weeks December 1 – April 13		13 weeks
Details	1. Application portal opens		2. Applications evaluated 3. Incubation Funding announced 4. Contribution letter
STAGE 2	Shortlisted Applicants Develop Final Submissions	Submission Deadline	Evaluation and Shortlisting
Duration	Notification of results: July 2023	December 14, 2023, 2:00 p.m. ET	December 2023 – March 2024
	22 weeks July 2023 – December 2023		13 weeks
Details	Shortlisted applicants: a. refine their solution b. design their implementation plan		5. Applications evaluated 6. Implementation Funding announced 7. Contribution Agreement
STAGE 3	Funded Applicants Implement Solution		
Duration	Notification of results: March 2024		
	52 weeks March 2024 – March 2025		
Details	Funded Applicants: c. implement solution		

The above timeline is illustrative in nature and shows the tentative timeframes for Stages of the Round. CMHC reserves the right to modify timelines as needed.

HOW TO APPLY

Applications for Stage 1 must be submitted using the online portal at: <https://impact.canada.ca/en/challenges/building-for-the-future/apply>

If a paper application is required, and for information on submitting a paper application, please contact the Housing Supply Challenge team at Challenge@cmhc.ca; or by phone at: 1-800-668-2642. Paper applications must be requested not later than March 3rd, 2023, and be received by the deadline (please allow time for delivery). Note that CMHC will not be responsible for any delays in receipt of a paper application.

All applications, including paper applications, must be received not later than April 13, 2023, at 2:00 p.m. ET. CMHC and Impact Canada will not accept any responsibility for entries not received for whatever reason.

Application Requirements and Evaluation Criteria

The table below lists the questions that need to be answered and the weighting of each question. All five sections of the application must be completed. The evaluation criteria column contains the associated questions that the evaluators will use to evaluate the application. Refer to [Appendix E](#) for an overview of the structure of the Impact Canada application portal.

Application requirements	Evaluation criteria	Weighting
Section 1: Applicant Information and Eligibility		
1.1 Proposed solution title	Must be completed. (Refer to Appendix E for more information.)	N/A
1.2 Solution summary		
1.3 Applicant information		
1.4 Eligibility of the Applicant		
1.5 Contact information for the solution Team Lead		
1.6 End users and beneficiaries		
1.6.1 Specify the users of the solution		
1.6.2 Specify the end users or beneficiaries whose housing needs would be addressed by the solution		
1.7 Solutions that impact Indigenous communities or organizations		
1.8 Complementary funding sources		
1.9 Stage 1 Terms and Conditions		

Application requirements	Evaluation criteria	Weighting
Section 2: Solution Description — 65%		
2.1 Describe the construction process, technique, system, or material solution you are proposing.	To what extent is this a strong, construction solution that has the potential to address the Challenge statement for Building for the Future Round? This description provides background for questions 2.2 to 2.6.	
2.2 Describe how your solution will impact the creation of new, or the preservation of existing housing.	Will this solution have a significant impact towards the creation of new or preservation of existing housing?	25%
2.3 Describe how you define affordability with respect to your solution. Describe how your solution will improve affordability and/or reduce costs.	To what extent will this solution improve affordability and/or reduce costs of housing?	15%
2.4 Identify the population, community, or end-user group that your solution will involve, benefit or impact. Describe how your solution makes supply available that meets their needs.	Does the population, community or end user fit with the objectives of the Challenge (see NHS list for example)? To what extent will this solution address the housing needs of this group?	10%
2.5 Describe how your solution is climate compatible. If climate impacts do not seem relevant to your solution, explain how there would be no adverse climate effects from the implementation of your solution.	Is the solution climate compatible? Will the solution have a demonstrable net impact with respect to climate mitigation, adaptation, or climate resilience? If the Applicant identifies climate compatibility as not being relevant to the solution, are there no adverse effects?	15%
Section 3: Feasibility of the Solution and Applicant Capacity — 20%		
3.1 Describe the technical feasibility of your proposed construction solution.	To what extent is the construction solution technically feasible? If the solution is in the early stages of development, is there a suitable plan to develop the solution for implementation?	5%
3.2 Provide a work plan and detailed budget with a list of activities that would be conducted using the Incubation Funding. Describe how the work plan will advance the solution.	Does the proposed work plan strive towards a successful implementation of the solution in Stage 3? Are the budget estimations, timelines, and milestones reasonable? Do the activities follow best practices?	5%
3.3 List the solution team members that will be developing and implementing your solution. Identify any steps you will take to fill gaps on your team (if required).	Does the team have the resources, skills, and capacity to develop and implement the solution? If not, is there a suitable plan to fill the gaps?	5%

Application requirements	Evaluation criteria	Weighting
<p>3.4 Describe the steps you have taken and will take to engage with those who will use your solution, those who might benefit from it, those who will be affected by it, and those who will implement it. Refer to Appendix C for guidance about principles of people-centered design.</p>	<p>Is there a realistic plan to engage those who will use the solution, benefit from it or be affected by the solution? Does the plan follow best practices and reflect the principles of people-centered design?</p>	<p>5%</p>
<p>Section 4: Long-term Viability of the solution — 15%</p>		
<p>4.1 Describe how you will ensure the operational sustainability of this solution post implementation.</p>	<p>Will this solution be operationally sustainable post-funding? If the solution is in early stages, is there a realistic plan for developing the operational plan in the incubation period?</p>	<p>5%</p>
<p>4.2 Describe how your solution could be scaled, replicated, or adopted in Stage 3 or after the Challenge timeline.</p> <p>List the major partners and collaborators that you will engage with and who will work with you to scale, replicate, or adopt your solution.</p>	<p>To what extent does this solution have the potential to be scaled, replicated, or adopted?</p> <p>Do the confirmed partners have the willingness, capacity, and authority to scale, replicate or adopt the solution? If not, is there a realistic plan to engage the necessary partners?</p>	<p>5%</p>
<p>4.3 Identify the most important risks related to the implementation of your solution and list the mitigation strategies you will explore.</p>	<p>Are the major risks identified and are the proposed mitigation tactics reasonable responses to explore?</p>	<p>5%</p>
<p>Section 5: Additional Information</p>		
<p>5.1 Indicate how you heard about the Housing Supply Challenge.</p>		<p>N/A</p>

Evaluation Panel and Selection Process

CMHC will assemble a panel of evaluators representing a variety of communities and regions, and selected based on their specific expertise in various sectors (for example, engineers, builders, housing providers, architects, regulators, etc.). The final selection of shortlisted Applicants will be based on a combination of the score relative to the evaluation criteria and the solution's overall contribution toward addressing the Challenge statement.

Housing Supply Challenge Applicant Support Program

The Support Program for participants of the Housing Supply Challenge is being provided by Evergreen in English and in French. Evergreen will support participants to develop robust and innovative solutions and advance bold ideas in response to the Housing Supply Challenge. Please note that Evergreen is not involved in the evaluation of the applications. For Stage 1 of the Building for the Future Round, the following services and ongoing supports are planned:

- **Ongoing Support Resources:** Evergreen will provide a team of dedicated support staff to answer questions on the Building for the Future Round, the application process, and requirements and elements of the Applicant Support Program.
- **Webinar(s):** These will be hosted by CMHC/Evergreen to support the development of Building for the Future Round applications.
- **Collaboration and Networking Event(s):** These optional events will provide a dedicated opportunity for participants to share experiences and explore potential collaborations within the sector with the intent of supporting the development of the most innovative, impactful, and lasting solutions.
- **Website:** Additional resources and updates for Applicants will be shared on the [Evergreen Community Solutions Portal](#)⁴, a digital, collaborative hub offering resources, tools, and connections to build a more innovative and stronger housing supply sector. Please check the website regularly.

Use of the Support Program is not mandatory. For additional resources, participants can also visit the Impact Canada website.

Interested participants are encouraged to contact Evergreen early to make the best use of support and resources available.

Contact Evergreen

Phone: 647-670-2265

Email: HSC-DOLsupport4@evergreen.ca

⁴ <https://futurecitiescanada.ca/portal/our-focus/hsc-support-program/#round-4>

APPENDICES

Appendix A: Building for the Future — Terms and Conditions

By submitting an application to the Building for the Future Round of the Housing Supply Challenge, the Applicant indicates their agreement to the Terms and Conditions outlined below. The Terms and Conditions set out in this Appendix A apply to both Stage 1 and Stage 2 and include any conditions related to the receipt of Incubation and/or Implementation Funding that may be received following these stages, except as otherwise stated herein or as may be varied by separate, subsequent documentation to be agreed to between the Applicant and CMHC, or any subsequent requirements to follow for Stage 2. CMHC reserves the right to modify any of the Terms and Conditions at any time without notice.

A. Eligibility criteria for the Applicant

To apply, the Applicant must meet the following eligibility criteria:

1. Must be a legal entity duly incorporated and validly existing in Canada, including the following:
 - a. For-profit and not-for-profit organizations (for example, companies, associations, research centres, etc.)
 - b. Indigenous governments, organizations, and groups
 - c. Canadian post-secondary institutions
 - d. Provincial, territorial, municipal, local, and regional governments
2. Submit only one application to this Round.
3. Not be in default under any previous Stage or Round of the Housing Supply Challenge, including but not limited to the Building for the Future Round.
4. Not be in receipt of any other funding from CMHC for a purpose similar or substantially similar to the purpose of the Building for the Future Round. Please note that stacking is permitted, but duplication is not.
5. Employees of CMHC, Evergreen, and anyone connected with the evaluation of applications for the Housing Supply Challenge and all its Rounds are prohibited from entry, whether as Applicants or as members of an Applicant team.
6. It is your responsibility to ensure you meet any provincial requirements for entering into an agreement with CMHC, a federal Crown Corporation. For example, in Quebec, if you are subject to the M-30 *Act respecting the Ministère du Conseil Exécutif*⁵, it will be your responsibility to obtain an authorization at the provincial level in order to enter into an agreement with CMHC as a Quebec public agency.

⁵ <https://www.legisquebec.gouv.qc.ca/en/document/cs/m-30>

Eligibility criteria for a Stage 1 submission

The **application** must meet the following requirements:

1. The solution proposed in the Stage 1 submission must be relevant to the Building for the Future Challenge statement and meet the evaluation criteria.
2. All sections of the application must be complete.

B. Applicant and its Team

1. The Applicant is the entity entitled to be considered for and potentially receive funding under the Building for the Future Round.
2. The Applicant must remain the same at all times and throughout all stages of the Building for the Future Round, except as otherwise agreed to by CMHC.
3. The Applicant may form a team and the Applicant may change the composition of that team (that is, adding or removing team members) at all times and throughout all stages of the Building for the Future Round.
4. Any arrangements between the Applicant and its team/team members, including partners and collaborators (“Team Members”) are strictly the responsibility of the Applicant. Any and all partnerships and collaborations are independent of CMHC and CMHC disclaims all responsibility with relation to any arrangement between Team Members, and to outcomes.
5. CMHC will not be responsible for managing relationships, mediating, or resolving disputes among Team Members relating to any matter. Any dispute must be resolved directly among Team Members. Notwithstanding any acknowledgement or representation required by any partner and/or collaborator, CMHC’s contractual relationship shall only be with the Applicant, and not with any Team Member.

C. Entry

1. There is no entry fee, and no purchase is necessary to apply to the Housing Supply Challenge Building for the Future Round.
2. If you require a paper application and for information on submitting a paper application, please contact the Housing Supply Challenge team at Challenge@cmhc.ca; or by phone at: 1-800-668-2642. Paper applications must be requested not later than March 3rd, 2023. Note that CMHC will not be responsible for any delays in receipt of a paper application by the Applicant.
3. If you would like to submit your application by fax, please send it to CMHC’s fax number at: 613-748-2098. Please notify the Housing Supply Challenge team at Challenge@cmhc.ca if you are submitting by fax.
4. All applications, including paper and fax applications, must be received by April 13th, 2023, at 2:00 p.m. ET. No responsibility can be accepted for entries not received for whatever reason.
5. Applications may be submitted in English or French.

D. General

1. The Applicant agrees to all Terms and Conditions set out in this Appendix A and agrees to comply with all applicable laws. Where the Applicant has formed a team, the Applicant remains directly responsible for the team and the team's compliance with these Terms and Conditions in respect of the application and all applicable laws.
2. The Applicant must ensure that its application, including all information and documents submitted under it, are true and accurate, sufficiently detailed, and legible. Original, supporting and/or additional documentation may be requested by CMHC at any time during the Building for the Future Round. The Applicant's eligibility and completeness of the application will be determined by CMHC in its sole discretion and CMHC will not be required to request that the Applicant provide missing or insufficient information to support the application.
3. The Applicant is responsible for obtaining third party professional advice, including, but not limited to legal, tax, insurance, and financial advice, as appropriate.
4. The Applicant understands and acknowledges that should its application be selected to receive Incubation and/or Implementation Funding, the Applicant shall, at its own expense, procure and maintain or cause to be procured and maintained, insurance policies in such amounts and with such deductibles and covering such risks as are generally deemed adequate and customary for their businesses including, but not limited to, policies covering commercial general liability, cyber liability, and errors and omissions. CMHC reserves the right, in its sole and absolute discretion, to conduct insurance requirement negotiations with the Applicant. Depending on the level of exposures of the project, various insurance coverages and insurance limits may be required and/or adjusted accordingly.
5. The Applicant must procure, maintain and keep records of any necessary permits, consents, orders, waivers, applications, approvals, registrations, rights, licenses, certifications, authorizations, inspections, privileges and exemptions or the like issued or granted by any governmental authority or by any third-party with respect to the proposed solution that is required to comply with applicable laws including building codes, municipal bylaws and regulations, Environmental laws, and zoning and must provide proof to CMHC upon written request, or as may otherwise be required prior to the advancement of any funding.
6. The Applicant and all its team members shall avoid any conflict of interest throughout their participation in the Challenge and shall immediately declare any existing, potential, or apparent conflict and shall, upon direction of CMHC, take steps to eliminate any conflict, or perception of a conflict of interest. In the event that a conflict of interest, real or perceived, cannot be resolved to the satisfaction of CMHC, CMHC shall have the right to immediately disqualify the Applicant, and all of the funding then disbursed to the Applicant by CMHC shall be immediately repayable by the recipient to CMHC.
7. CMHC does not guarantee, nor take responsibility for, any services or advice provided by Evergreen and/or any other third parties.
8. CMHC has the sole discretion to cancel the Housing Supply Challenge and/or the Building for the Future Round or any part thereof at any time. CMHC will not be liable for any costs or obligations incurred by an Applicant or its team or members thereof arising from this application.

9. Even if an application meets all eligibility and evaluation criteria, the submission of an application creates no obligation on the part of CMHC to shortlist, select, or provide funding to an Applicant and/or a proposed solution. Further, shortlisting or selection at any Stage of the Building for the Future Round does not guarantee receipt of funding.
10. Funding may be made in a lump sum or at certain milestones and funding must only be used for the solutions that align with the Challenge Statement as specified in this Applicant Guide and in subsequent agreements. Receipt of funding following any stage is subject to the Terms and Conditions of this Applicant Guide and any additional or modified terms and conditions that may be set out in separate, subsequent agreements issued by CMHC. CMHC has the sole discretion to deny funding of a solution on the basis of the Applicant being in default with respect to any agreement with CMHC, including programs outside of the Housing Supply Challenge.
11. The Applicant must maintain detailed records and account statements, including receipts, invoices and other documents related to the proposed solution and provide these records to CMHC or its representative upon request.
12. The Applicant shall not use the name, logo, or other official marks of CMHC, Impact Canada, Evergreen, Innovation 7, or the Government of Canada without the express written consent of each respective entity.
13. The Applicant shall not publish, make public or announce the Contribution or Project prior to the CMHC or Government of Canada announcement or as otherwise authorized by CMHC in writing.
14. By submitting an application to the Building for the Future Round of the Housing Supply Challenge, you agree to having any information, including information about your legal entity and your personal information, used, processed, and disclosed to CMHC’s employees, agents, evaluators, service providers, contractors, the Government of Canada or outside consultants/experts working with CMHC, including Evergreen and Innovation 7, on a need-to-know basis, for the following purposes:
 - a. For decision on your submission;
 - b. To administer/monitor the Housing Supply Challenge;
 - c. For evaluation of the Housing Supply Challenge;
 - d. To communicate to the Applicant possible partnerships, collaborations, or opportunities with CMHC or external parties as they may arise from time to time;
 - e. For analytics, policy analysis, data analysis, auditing, and research by CMHC; and
 - f. For use by CMHC and the Government of Canada for any purpose related to the *National Housing Act (Canada)* and/or the *National Housing Strategy*.
15. CMHC reserves the right to translate the Applicant’s application and any additional documentation/ information submitted as part of the application process for CMHC’s employees, agents, evaluators, service providers, contractors, the Government of Canada, and outside consultants/ experts working with CMHC, as may be required for the administration of the Challenge.
16. The Applicant understands and authorizes CMHC to summarize documents submitted through the application process and to publish these summaries.

17. CMHC understands that the Applicant may submit documents and information of a financial, commercial, scientific, or technical nature that the Applicant may wish to be treated as confidential by CMHC employees, agents, evaluators, and service providers. Where an Applicant wishes select details of their application to be treated confidentially, these select details must be clearly marked “CONFIDENTIAL” beside each item or at the top of each page containing Information that the Applicant wishes to protect from disclosure. CMHC will make all reasonable efforts to protect the Applicant’s documents and information so marked from disclosure. Notwithstanding the foregoing, (i) CMHC shall have no liability of any kind to the Applicant, or any other party, based on disclosure of proprietary or confidential information; and (ii) CMHC is authorized to disclose proprietary or confidential information, on a need-to-know basis, for the purposes relating to the Challenge. For greater clarity, Applicants may not mark an entire application confidential.
18. The Applicant agrees to indemnify and hold harmless CMHC and the Government of Canada, its employees, agents, evaluators, service providers, contractors, and outside consultants/ experts working with CMHC, from any and all liability from claims, losses, damages or expenses of any nature whatsoever arising from or as a consequence of or relating to its proposed solution, application and/or participation in the Building for the Future Round of the Housing Supply Challenge, including but not limited to, any construction, renovation, or work of a similar nature, of units or buildings, or the operation thereof, the failure of the Applicant to comply with all applicable environmental laws, or losses suffered in connection with the presence of any hazardous material on the land upon which construction, renovation or work of a similar nature is situated.
19. The Housing Supply Challenge, and this Round, and any related documentation, including but not limited to this Applicant Guide, shall be governed in accordance with the laws of the Province of Ontario and any applicable federal laws.

E. Intellectual Property

1. The Applicant must be able to demonstrate ownership of or permission to use any intellectual property (IP) used in the Challenge. Participating in the Challenge does not affect any pre-existing rights the Applicant may have in the assets described in their application. In the event the application incorporates IP belonging to a third party, the Applicant is responsible for meeting any and all requirements established by the third party owner.
2. Notwithstanding the above, the Applicant will not be required to demonstrate ownership of aspects of Traditional Knowledge (as defined in **Appendix B**), which shall continue to vest in the Indigenous groups or communities to which they pertain. The Applicant acknowledges that the Indigenous group or community to which the Traditional Knowledge pertains shall maintain all relevant ownership, control, access, and possession rights in the Traditional Knowledge.
3. The application itself, submitted for the Building for the Future Round, will become the property of CMHC upon submission.

F. Privacy

1. The Applicant acknowledges that CMHC as a federal Crown Corporation is subject to the federal *Privacy Act*⁶ and *Access to Information Act*⁷.
2. CMHC is committed to protecting the privacy, confidentiality, and security of personal information that it holds by adhering to the requirements of the *Access to Information Act* and the *Privacy Act*. Personal Information collected by CMHC for the purposes of the Challenge can be found on the Treasury Board of Canada website, under Standard personal information banks: **Outreach Activities (PSU 938)**⁸ and **Public Communications (PSU 914)**⁹.

The *Privacy Act* provides individuals with a right to access their personal information that is under the control of CMHC, to request corrections of their personal information and to file a complaint to the Privacy Commissioner of Canada regarding CMHC's handling of their personal information. Any inquiries related to the treatment of such personal information may be directed to CMHC's Privacy Office at PrivacyOffice@cmhc-schl.gc.ca. Any requests for personal information may be directed to CMHC's Access to Information Office at ATIP-AIPRP@cmhc.ca. For more information relating to access to information or privacy, you may visit [Access to information and privacy protection \(cmhc-schl.gc.ca\)](#)¹⁰.

⁶ <https://laws-lois.justice.gc.ca/ENG/ACTS/P-21/index.html>

⁷ <https://laws-lois.justice.gc.ca/eng/acts/a-1/fulltext.html>

⁸ <https://www.canada.ca/en/treasury-board-secretariat/services/access-information-privacy/access-information/information-about-programs-information-holdings/standard-personal-information-banks.html#psu938>

⁹ <https://www.canada.ca/en/treasury-board-secretariat/services/access-information-privacy/access-information/information-about-programs-information-holdings/standard-personal-information-banks.html#psu914>

¹⁰ <https://www.cmhc-schl.gc.ca/en/about-us/corporate-reporting/transparency/access-to-information-and-privacy-protection#:~:text=The%20Access%20to%20Information%20Act,control%20of%20a%20government%20institution>

Appendix B: Challenge Statement Definitions and Examples

The definitions provided below are specific to this Round of the Challenge and are provided to support Applicant interpretation of the Challenge statement.

Adapting

An approach to replicate or scale a construction process, technique, system, or material that is in limited use. This approach could include activities like modifying a process, technique, system, or material from a different industry for use in construction. It could also include modifying an existing solution for use in a new climatic region, for use in deeply affordable housing, or to meet the needs of a community or population. It could also include embedding Traditional Knowledge into a construction process, technique, system, or material.

Adopting

An approach to replicate or scale a construction process, technique, system, or material that is in limited use. This approach could include activities like building up the organizational infrastructure and skill sets used in the construction process, technique, system, or material (for example, a non-profit housing provider that installed a climate compatible building system in a building, and who needs funding to adjust operations and cover capital expenses to include this building system in additional housing builds or retrofitting projects).

Affordable

The definition of affordability will be dependent on the type of solution and the context in which it operates. Solutions that achieve deeper levels of affordability are encouraged (see the **National Housing Strategy**¹¹ definition of affordability), and standards of quality must be upheld to ensure the long-term operations of anything that is built. For the Challenge, the following measures of affordability can be used:

1. Impacts on short-term and long-term affordability (for example, includes wrap-around costs like the costs of access to transportation and services, energy costs, maintenance).
2. Impacts on core housing need for people made vulnerable (see **National Housing Strategy**⁹ definition of core Housing and the list of vulnerable populations).
3. Median market rent for the geographic area– if the monthly housing costs are lower than the median market rent, the innovation is considered to improve affordability.

Climate compatible

A term used to describe solutions that are created with consideration of rapidly changing climate conditions in mind, and with the view to not add to green house gas (GHG) emissions. This may include climate mitigations, such as using sustainable materials and an efficient design, lowering embodied carbon, reducing dependency on fossil fuels, and/or making climate adaptations that will help the dwelling resist damages caused by climate change and natural hazards by integrating approaches that will keep occupants safe and healthy.

¹¹ <https://www.cmhc-schl.gc.ca/en/nhs/guidepage-strategy/glossary>

Construction

Any activity relating to building or renovating a housing unit (for example, single dwelling, multi-unit structure, mixed use), including maintenance for upkeep, retrofitting for upgrades, and renewal overhauls.

Increase

1. The creation of additional housing units by constructing new units or increasing the availability of units.
2. Preventing homes from falling into disrepair and taken out of the available housing supply, or by increasing the functionality of a home or unit to diversify the types of units available to match people's needs.

Applicants are invited to tell us how their solutions increase the supply of housing relative to the context they will operate within.

Innovative

A process, system, technique, or material that has limited adoption of use (see readiness level definition in the Challenge Statement section), and/or is being newly adapted (for example, from a different industry) to a different context (for example, climate, level of affordability, or for the housing needs of a different resident group). We welcome solutions that fall along the spectrum of analogue to digital and from simple to complex. The application of the innovative process, system, technique, or material must have the potential to make an impact on increasing the supply of housing in Canada on a long-term, or ongoing basis, specifically in terms of climate resilience, affordability and meeting people's needs. Diverse approaches to achieving these outcomes are welcome and encouraged.

Materials

The matter, elements or components used in the creation of new, or the preservation of existing housing (for example, materials that replace or improve existing materials like concrete, increase carbon sequestration, are locally available, are relevant to the cultural context, etc.).

Needs

The definition of needs will be specific to the solution and the populations for whom it is designed. Applicants will need to describe how their solution meets peoples' needs and/or indicate what they will do to test this. Solutions that directly involve housing design are expected to use the best practices of a human-centered design (HCD) process to ensure they are meeting the needs of the population and/or the community for whom the housing is being designed. This includes considering the quality of the housing that is being built. Solutions that are industry-focused are encouraged to use an HCD process to ensure that the solution will work long-term for the intended end user.

Preserving housing

This term includes renovations done as part of maintenance and upkeep, retrofitting to make upgrades, and renewal to completely overhaul a building.

Processes

The actions or activities required for the creation of new, or preservation of existing housing (for example, integrated project management, process that supports early unit maintenance, etc.)

Replicating

The stage in the innovation process where a process, technique, system, or material is used in one location or context and is then prepared to be used in another location, or context.

For example

1. a process, technique, system, or material that works in one geographic location is replicated by being adapted to be viable in another climatic region (or multiple additional regions).
2. a process, technique, system, or material that works well in the private market that is replicated through being adjusted for use in a deeply affordable housing project (or multiple projects).

Scaling

1. The stage in the innovation process where a process, technique, system, or material moves from being in limited use to being broadly adopted.
2. The operational adjustments required to provide a process, technique, system, or material at a broader scale.

For example, adapting a process, technique, system, or material from one industry into the housing industry for broader use.

Supply of housing

The number, type, and availability of housing units. Increasing supply can include creating new housing units, preserving existing housing units through retrofitting the current housing stock, and reusing and converting non-residential buildings. Increasing supply can also be addressed by ensuring that housing types meet the needs of the populations requiring housing (for example, retrofitting units to have universal design).

Systems

The building systems, system components or technology systems employed in the creation of new units, or the preservation of existing housing (for example, electrical, heating, air, plumbing, software).

Techniques

The approaches, manner or methods used for the creation of new units, or the preservation of existing housing units (for example, supports for building in a variety of climate conditions, methods for creating more energy-efficient houses, techniques to converting existing housing units to meet people's needs).

Traditional Knowledge

Knowledge, skills, innovations, and practices developed by Indigenous peoples acquired through experience, observation, from the land or from customary teachings, and handed down from one generation to another. Traditional Knowledge shall at all times remain the property of the community to which it pertains, and the community will maintain all relevant ownership, control, access, and possession rights in the Traditional Knowledge.

Examples

Applicants are invited to propose solutions that respond to the Challenge statement and meet the **Evaluation Criteria**.

Examples of possible ways to address the Challenge statement are listed below.

Solutions could replicate or scale the adoption (or adaptation) of:

1. renovation solutions that create universally designed units;
2. renovation solutions that improve the long-term affordability for residents through climate adaptations;
3. solutions that decrease the costs of construction where the savings improve affordability for residents;
4. a solution that decreases the cost of construction to support housing for vulnerable residents and maintains a standard of housing to meet the resident's needs and ensures the long-term viability of the units;
5. solutions that streamline or speed up processes, minimize errors, or reduce delays in order to drive down construction costs, while creating or maintaining housing that meets people's needs;
6. solutions that improve the existing housing stock in order to increase sustainability of the building;
7. solutions that embed Indigenous knowledge in approaches to housing construction;
8. solutions that create a circular economy in construction by reducing waste or repurposing materials;
9. solutions that increase productivity, while maintaining or improving health and safety on site;
10. solutions that improve retrofits, while minimizing disruption for residents; and
11. solutions that are in limited use or are adapted from another industry while meeting the evaluation criteria.

Applicants are invited to propose their own solutions so long as it responds to the Challenge statement and meets the Building for the Future Round evaluation criteria. The examples provided above are intended as general ideas and further details would be needed to meet all evaluation criteria.

Examples of solutions *outside the scope* of this Round include:**

- Research and development of construction processes, techniques, systems, or materials that are unlikely to increase the affordability of housing supply.
- A solution that has not been designed with impacted communities or end users.
- A one-off solution that is not replicable or scalable.
- A solution that has received CMHC funding for the same activities.
 - *Note:* Stacking of funding from other HSC Rounds, programs, or funding sources is permitted so long as the funding is used for different activities on the project(s).
- A solution that is only focused on building housing units without involving an innovative construction process, technique, system, or material.
- A solution where the research, development and certification timelines prevent the solution from being feasible within the time frame of the Challenge.
- Solutions that do not impact the construction or renovation of a unit.

Examples of activities that *cannot* be funded as part of the Challenge include:**

- Land acquisition
- Activities that are already being funded by another CMHC program.
 - *Note:* Stacking of funding from other HSC Rounds, programs, or outside funding sources is permitted so long as the funding is used for different activities on the project(s).
- Activities related to the solution that were completed prior to signing the Stage 2 Contribution Letter.
- Advocacy products or activities.
- Patent submissions
- *Development of training program (as the primary solution)
- *Activities related to addressing regulatory dependencies (as the primary solution)

* *Note:* These activities may be part of a larger project that the solution is related to, but they cannot be the focus of the solution.

** See the [Challenge Structure — Funding](#) section for a list of examples of activities that can be funded as part of the Challenge.

Appendix C: People-Centered Design — Equity, Diversity,¹² Inclusion and Reconciliation¹³

For the Building for the Future Round, Applicants are expected to apply a people-centered approach to their design to ensure that the solution will work for the end user (within the industry) or meet the affordability and housing needs of a specified population. This appendix has been created to support the development and review of concepts that are people-centered. It will help participants appropriately identify groups that may be involved in the development of, or be impacted by, the solution; be a resource to help describe the ways in which the identified groups will be engaged; and ensure that the solution is designed to address the needs of the identified groups.

These five steps can be used to design meaningful, fair, and impactful solutions without unintentionally creating hurdles that would impact sections, segments, or proportions of the population. These steps can be used to guide the development of Stage 1 and Stage 2 applications.

A. Consider your solution

1. Identify the context and any intersections relating to diversity, inclusion, and reconciliation:
 - a. Which peoples/groups and/or lands will be involved in, or affected by your solution?
This can include communities, stakeholders, rights holders, decision makers, institutions, different levels of government, etc.,
 - b. What are the intersections with diversity, inclusion, and reconciliation within the context of your proposed solution?
 - c. Are there historical disparities related to a broader issue (for example, industry is male-dominated, land ownership is the focus of an ongoing land claims process, or other events)?
2. Challenge assumptions: Although the proposal you are working on may appear to affect and engage everyone equally, always challenge your assumptions about whether it has implications relating to diversity, inclusion, and reconciliation.
 - a. Whose point of view is reflected in defining the vision?
 - b. Who is impacted by the proposal? / What is affected by the proposal (for example, lands; or a step within the building process)?
 - c. How are the people or places affected?
 - d. Could some groups be affected differently than others?
3. Consult resources to learn about reconciliation: Although the proposal you are working on may appear far removed from reconciliation, there may be relevant ways to engage in reconciliation throughout the process of your solution. Consult relevant resources to consider which actions may be appropriate to ensure that the rights of Indigenous people are being respected during all stages of the solution, and to explore whether there are appropriate actions that could be taken when developing or implementing the solution to take steps towards reconciliation.

¹² A common tool used when undertaking these types of consideration is Gender-Based Analysis Plus (GBA+). Additional information on GBA+ is also available at the Women and Gender Equity Canada website, which includes an online course.

¹³ Truth and Reconciliation Commission (2015) "Reconciliation is about establishing and maintaining a mutually respectful relationship between Aboriginal and non-Aboriginal peoples in this country. In order for that to happen, there has to be awareness of the past, an acknowledgement of the harm that has been inflicted, atonement for the causes, and action to change behaviour." Additional information on reconciliation is available at the Department of Justice website, which includes Principles of Reconciliation and a video on Reconciliation.

Examples of resources (this is not an exhaustive list):

- a. Truth and Reconciliation Commission — Calls to Action (for example, Call to Action 92 on business activities) The Calls to Action offer specific examples of actions that applicants may consider introducing into their business activities to further steps towards reconciliation.
- b. United Nations Declaration on the Rights of Indigenous Peoples (for example, articles 21, 23, 25) This declaration outlines Indigenous governments, housing authorities, agencies, organizations, and group's right to developing and determining improvements to their economic and social conditions (inclusive of housing) and development to ensure continuing improvement of economic and social conditions, as well as supporting Indigenous self-determination in housing.
- c. The Final Report of the National Inquiry into Missing and Murdered Indigenous Women and Girls. The report offers clear language on the rights of Indigenous women and girls.
- d. Mapping resources (for example, native-land.ca) can be used to help identify what lands a project is operating or being built on to conduct a review for any treaties and legal dependencies that could be associated with business activities on the lands.

B. Consider your sources

1. How does the kind of information available inform the conclusions made above in question 1?
2. What research or evidence is available to you to support your understanding of the groups that may be involved in the creation of your solution, or impacted by your solution?
3. Are there opportunities to improve the depth and quality of this information through the further development of your solution if you are selected to move on to Stage 2?
4. Do you have access to information regarding intersecting identity factors prevalent in the groups that may be engaged in your solution, or impacted by your solution such as: gender, Indigenous population, Indigenous community, ethnicity, religion, age, and mental or physical disability?

C. Consider consultation

1. If there are identified gaps in the information available, consider steps that could be taken in Stage 2 of the Building for the Future Round, if you are selected, for shortlisting to address these gaps in knowledge (for example, consultations with communities, stakeholders, decision makers, institutions, different levels of government).
 - a. When consulting, how will you communicate openly about what you are hoping to achieve with your solution and how will you remain open to being challenged on your understandings?
 - b. How will you explain how you intend to use information that is shared with you?
 - c. Consider if compensation for consultation is appropriate.
 - d. Consider opportunities for collaboration and partnership, where appropriate. It takes a wide range of insights, perspectives, and expertise to develop and implement new ideas.

D. Consider the implementation process

1. New information that emerges through research and consultation may result in a deeper understanding of the barriers and the needs of the groups involved or potentially affected by the solution. This may alter the course of your solution at any stage of development or implementation.
 - a. Using the resources, and additional information you have gathered, consider how the proposed solution addresses the specific issues identified.
 - b. Does the information suggest that the solution could potentially impact various groups of people in different ways? If so, how?
 - c. Does the solution improve the situation for all people? If not, does it create barriers for some groups of people?
2. Consider your process.
 - a. What steps can you take to review and monitor your process during implementation? Transparency and regular self-assessment will create opportunities to apply your learnings, address issues early, and improve your solution development throughout the process.
 - b. Is the solution operating in a way that is effective and appropriate for different groups of people?
 - c. How can you self-evaluate and document the remaining knowledge gaps and address unintended outcomes for diverse groups?

E. Consider project milestones and conclusions

1. How will you share or discuss the outcomes of the consultations with those involved in the solution development (for example, communities, stakeholders, decision makers, institutions, different levels of government)? Returning to the group to share the way in which their feedback was integrated into the project process or solution may help demonstrate due diligence, ensure accountability, build trust, and identify areas for further action.

Appendix D: Climate Compatible Housing

For the Building for the Future Round, solutions are evaluated on their ability to incorporate climate compatibility principles in their design. This will ensure that the housing construction solutions submitted can help mitigate greenhouse gas emissions and/or be adapted to changing climatic conditions.

This appendix has been created to support the development of concepts that are climate compatible. It will help participants consider different factors that impact their proposed solution's climate compatibility and ensure their solution addresses different needs related to climate change.

These four considerations can be used to design meaningful and impactful solutions, but do not necessarily need to all be present for the proposed solution to be deemed to address climate compatibility.

Consider operational greenhouse gas (GHG) emissions

Operational emissions are GHG emissions associated with the energy need for building maintenance and operation.

To help you determine how your solution will reduce GHG emissions, consider which of the following measures it would address:

1. Will it reduce the demand for energy? This includes activities that reduce the energy and water usage, such as improved window and door sealing to prevent air leakage.
2. Will it improve energy efficiency? This includes measures that better utilize the energy required to operate an active system such as LED lighting and high-efficiency appliances.
3. Will it substitute current energy sources? Will it replace non-renewable energy sources (natural gas, coal, diesel) by renewable energy sources such as, solar, wind, hydropower, biogas, hydrogen, and more.

To help you determine to what degree your proposed solution will reduce operational carbon emissions consider the following:

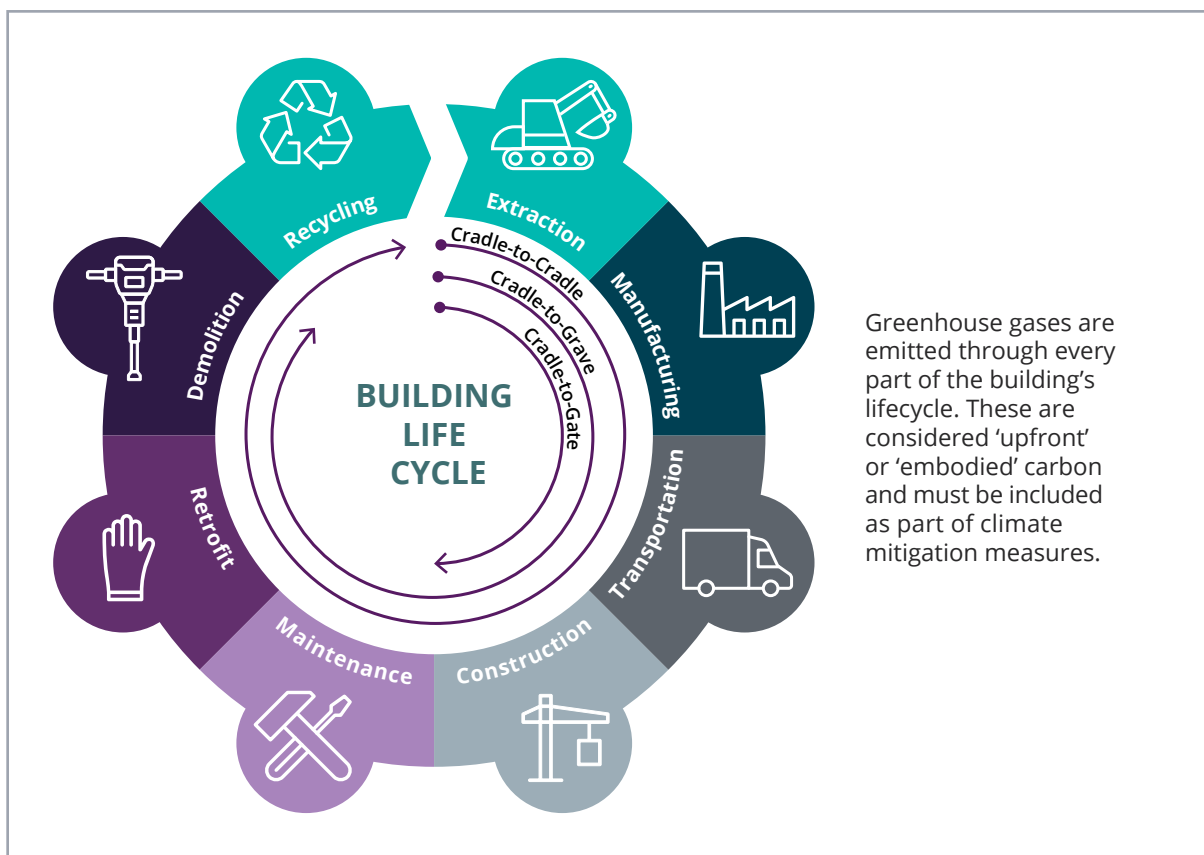
1. Will it partially lower emissions? If so, please indicate the estimated emissions reduction.
2. Will the proposed solution result in carbon-neutral building operations? (That is, the amount of carbon emitted by the building is equal to the amount it removes through carbon sequestering material or carbon emission offsets).

Consider embodied greenhouse gas emissions

Embodied emissions are GHG emissions emitted by the extracting, manufacturing, and transportation of the building materials/components as well as the emissions associated with the entire building life cycle.

To help you determine how your solution will reduce embodied emissions, consider which of the following measures it would address:

1. Will the proposed solution use materials with low embodied emissions?
 - a. Some construction materials have very high embodied emissions, such as cement, metals, and plastics while other building materials may actually store carbon and keep it out of the atmosphere (such as wood or bamboo).
2. Will the proposed solution address the embodied emissions in the building process (non-material)?
 - a. During the life cycle of a building, from the construction to the demolition of a building, carbon is emitted into the atmosphere (see diagram below).
 - b. Consider technology throughout the entire building life cycle and how it can reduce (or stop) carbon emissions.

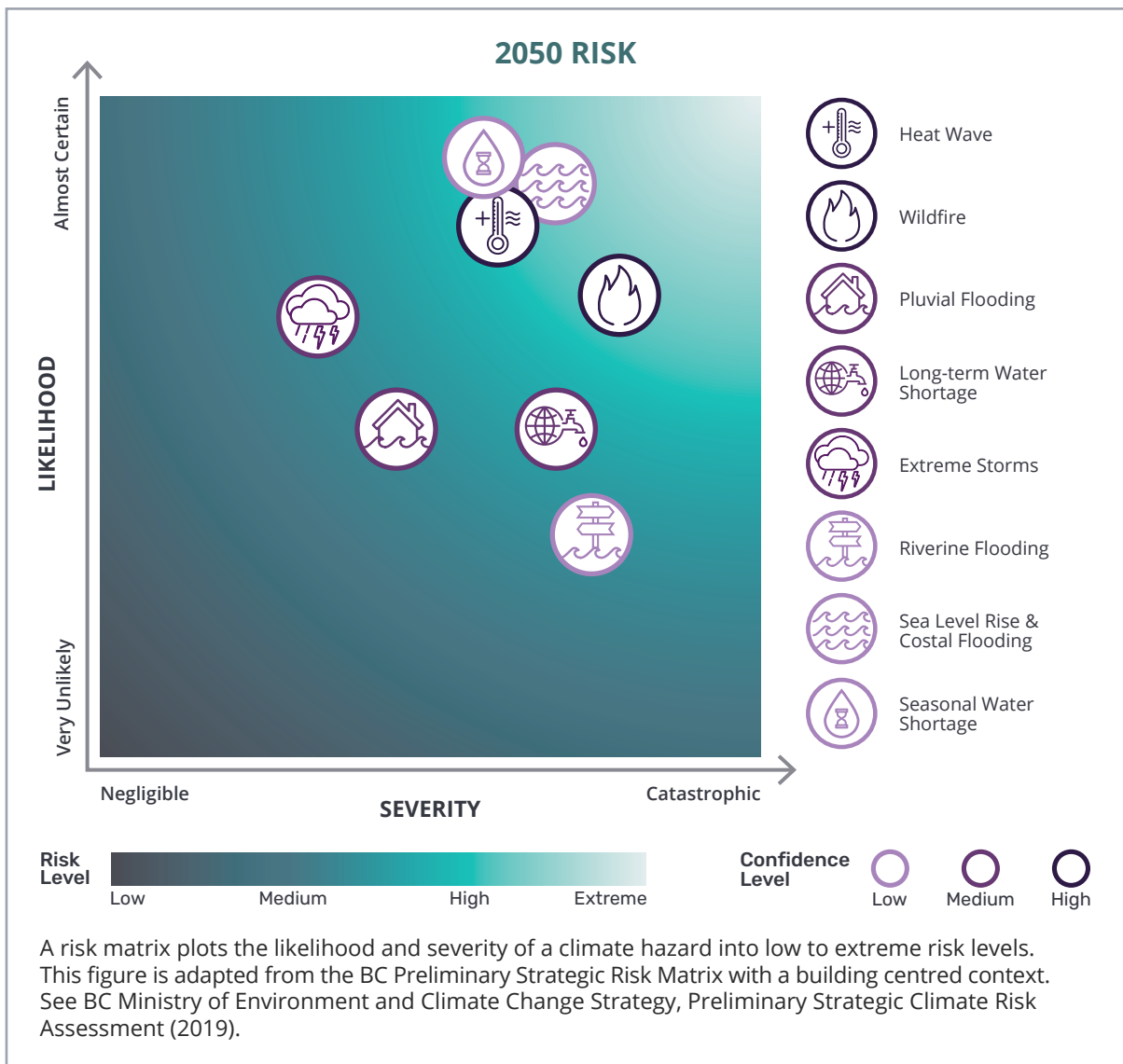


Source: [Climate-Change-Resilience-for-Buildings-Primer.pdf \(rdh.com\)](#)¹⁴

¹⁴ <https://www.rdh.com/wp-content/uploads/2021/07/Climate-Change-Resilience-for-Buildings-Primer.pdf>

Consider resilience to physical climate change risks

1. Does your proposed solution assist in avoiding/reducing disruptions or damages due to climate events (for example, flooding, extreme precipitation, wildfire, drought, and extreme snow/ice)?
2. Consider which risks are more likely to occur and can be the most severe in your region when you determine which ones are the most important to improve from resilience/adaptation (see figure below for an illustrative example of a risk matrix).
3. Does your proposed solution contribute to the improved health, comfort, and safety of inhabitants by modifying building designs to meet local climate conditions and take into consideration changing climate conditions (for example, designs that are compatible for extreme heat/cold scenarios).
4. Consider intervention points for climate compatibility.



Source: [Climate-Change-Resilience-for-Buildings-Primer.pdf \(rdh.com\)](#)¹⁵

Note: the above figure is the strategic risk assessment for British Columbia and is meant to illustrate different physical climate change risks and their varying likelihood and severity in a specific geographic region. Climate change risks will differ based on the geographic region in Canada.

¹⁵ <https://www.rdh.com/wp-content/uploads/2021/07/Climate-Change-Resilience-for-Buildings-Primer.pdf>

When considering the climate compatibility of your solution, via operational or embodied emission reduction or improved resiliency, identify the different intervention points in which your proposed solution reduces emissions: through building components and/or building processes.

1. Which, if any, building component(s) will your proposed solution address?
 - a. Envelope: walls, windows, doors, foundation, attic, etc.
 - b. Heating, ventilation, and air-conditioning (HVAC): the different systems within a building used for moving air between indoor and outdoor areas and heating and cooling.
 - c. Appliances: refrigerators, dishwashers, freezers, washing machines and dryers.
 - d. Lighting and peripherals: indoor and outdoor lighting.
2. Which, if any, building processes will your proposed solution address?
 - a. Building site: the area/piece of land where the building is being constructed.
 - b. Drainage: the removal of surface and sub-surface water during the building process.

Appendix E: Application Portal Questions

Applications for Stage 1 must be submitted using the online portal at:
<https://impact.canada.ca/en/challenges/building-for-the-future/apply>.

Please email Challenge@cmhc.ca to request a paper copy by March 3rd, 2023, if required.

Section 1: Application Information and Eligibility

1.1 Proposed solution title

Guidance: Provide a title that you would like to have appear in public announcements if the solution is shortlisted. It is best to use a unique title that paints a picture of your solution without being overly lengthy. *(up to 150 characters)*

1.2 Solution summary

The summary should provide basic details, including a description of your solution, why it is needed, how and where it would be implemented, and the lead organization and main partners. Include any key words that will help us understand your solution. This summary will be used for communications and marketing purposes and will be used to match appropriate evaluators to your solution. *(up to 1,200 characters)*

1.3 Applicant Information

The Applicant is the organization that will accept the Incubation Funding if selected. The signatory has the authority to sign the contribution agreement on behalf of the Applicant.

1.3.1 Applicant Name (incorporated)

1.3.2 Address

Address

City/Town

Province

Country

Postal Code

Mailing address (if different than address above)

1.3.3 Business E-mail

1.3.4 Business phone number (xxx-xxx-xxxx)

1.3.5 Organization/Group website URL (if available)

1.3.6 Organization/Group social media accounts (if available)

1.3.7 Full name of signatory

1.3.8 Signatory confirmation

I confirm that I have the ability to provide this information and bind the Applicant.

1.4 Eligibility of the Applicant

Eligible Applicants must be legal entities duly incorporated and validly existing in Canada.

- For-profit (for example, housing developers, builders, construction professionals, general contractors, technology companies, start-ups, architects etc.)
- Not-for-profit organizations (for example, housing providers)
- Indigenous organizations, governments, groups, housing agencies and authorities
- Canadian post-secondary institutions
- Government (provincial, territorial, municipal, local, and regional)

Confirm eligibility:

- I confirm that my organization is eligible to apply for the Building for the Future Round of the Housing Supply Challenge.

CRA Registration Number for Businesses, Charities or Not-for-Profit Organizations:

Please only include your nine-digit Business Number (BN): It is a unique number the Canada Revenue Agency (CRA) assigns as a tax ID and is used when dealing with federal, provincial, or local governments. [Visit this link for more information](#)¹⁶.

If you're an academic organization, please include the BN of the entity (e.g. research centre, lab, etc.) that will receive prize funding if the solution is successful in the challenge.

1.5 Contact information for the solution Team Lead

The solution Team Lead is the representative appointed by the Applicant who will be responsible for all communications with CMHC related to this application or with any resulting contracts or agreements. This person might be different from the signatory of any contribution agreements.

1.5.1 Full name

1.5.2 Organization

1.5.3 Role in the organization

1.5.4 Email

1.5.5 Phone number

1.5.6 Preferred language of communication

- English or French

1.5.7 Alternate contact information

1.6 End users and beneficiaries

1.6.1 Specify the users of the solution

Specify who would use your construction process, technique, system, or material. This information will be used for CMHC data gathering and reporting.
(up to 500 characters)

¹⁶ <https://www.canada.ca/en/services/taxes/business-number.html>

1.6.2 Specify the end users or beneficiaries whose housing needs would be addressed by the solution

Indicate which populations would benefit if your solution were to be implemented. Check all that apply. If your solution is not for any specific population, then choose “No specific population” or “Multiple populations” as applicable. You can also use the free text space to specify the intended population(s). We welcome solutions that will help meet the housing needs of people experiencing vulnerability or who are equity-seeking, including those not mentioned on the list below. This information will be used for CMHC data gathering and reporting.

- | | |
|--|---|
| <input type="checkbox"/> No specific population | <input type="checkbox"/> People dealing with mental health and addiction issues |
| <input type="checkbox"/> Multiple populations | <input type="checkbox"/> Veterans |
| <input type="checkbox"/> Local communities | <input type="checkbox"/> 2SLGBTQIA+ communities |
| <input type="checkbox"/> Regional scope | <input type="checkbox"/> Racialized groups |
| <input type="checkbox"/> National scope | <input type="checkbox"/> Recent migrants, such as refugees |
| <input type="checkbox"/> Women and children fleeing violence | <input type="checkbox"/> People experiencing homelessness |
| <input type="checkbox"/> Seniors | <input type="checkbox"/> Indigenous peoples |
| <input type="checkbox"/> Young adults | <input type="checkbox"/> Other (please describe) —
<i>(up to 400 characters)</i> |
| <input type="checkbox"/> People with disabilities | |

1.7 Solutions that impact Indigenous communities or organizations

If you are a non-Indigenous Applicant and the proposed construction solution:

- intends to address a barrier specific to First Nations, Métis, or Inuit peoples;
- is to be implemented in a territory important to a First Nation, Métis, or Inuit nation; or
- can potentially affect First Nation, Métis, or Inuit nation, or Indigenous peoples.

Then you may need to hold consultations for your solution to be eligible.

- I confirm that the Applicant is an Indigenous organization or community.
- I confirm that the proposed solution does not impact or require consultations with Indigenous communities or organizations.
- I confirm that the proposed solution might impact Indigenous communities or organizations. The following steps will be taken if the project receives Incubation Funding.

Use the text box provided to identify which Indigenous nations would be impacted by the solution, the engagement process that you will use, the ethics guidelines you will follow, and/or the Indigenous representatives that you will invite to join the solution team. *(up to 600 characters)*

1.8 Complimentary funding sources

Complimentary funding and using CMHC programs or by partnering with other organizations are permitted and encouraged (stacking of funds). However, no duplication of funding for portions of activities in the work plan is allowed.

- I can confirm that the Applicant is not receiving funding from any other CMHC program.
- I can confirm that the Applicant has received funding from another CMHC program(s) but none of the activities in the work plan have received duplicate CMHC funding.
- I confirm that I am receiving funding from other sources but none of the activities in the work plan have received duplicate funding from these sources.

1.9 Stage 1 Terms and Conditions

- I confirm that I agree to the Stage 1 Terms and Conditions.

Section 2: Solution Description — total weighting 65%

2.1 Describe the construction process, technique, system, or material solution you are proposing

Guidance: Describe your construction-related solution. What it is, how it works, and how it can be considered a construction-related solution (as opposed to a predevelopment process solution, or a data solution for instance). This description is very important for the evaluators to give them a sense of what exactly it is that you are trying to implement. It will also provide them background information for the evaluation of this section. *(up to 3,000 characters)*

2.2 Describe how your solution will impact the creation of new units, or the preservation of existing housing units- weighting 25%

Guidance: Describe the potential impact of your solution if it were to be implemented. Explain the value of the solution if given funding to replicate, scale, or adopt it terms of how it will impact the creation of new units or preserving existing housing. *(up to 2,000 characters)*

2.3 Describe how you are defining affordability with respect to your solution. Describe how your solution will improve affordability and/or reduce costs — weighting 15%

Guidance: Part of the Building for the Future Challenge statement refers specifically to housing that is affordable. Affordability can be achieved in many different ways (see the [Appendix B](#) for examples and definitions of affordability). Here you will describe how affordability is defined within the context of your solution. Describe how you will achieve affordability through your solution. *(up to 2,000 characters)*

2.4 Identify the population, community, or end-user group that your solution will involve, benefit or impact. Describe how your solution makes supply available that meets their needs — weighting 10%

Guidance: Specify the intended user/community that will benefit from the implementation of your solution. Explain how this intended user relates to the Challenge statement with respect to housing that meets people’s needs. Indicate whether there is a specific need in a local community, or whether the solution has the potential to meet the needs of a specific population experiencing vulnerability or an equity-seeking group. If implemented, how would the solution achieve this goal. *(up to 2,000 characters)*

2.5 Describe how your solution is climate compatible. If climate impacts do not seem relevant to your solution, explain how there would be no adverse climate effects from the implementation of your solution — weighting 15%

Guidance: Use the [Appendix D](#) of the Applicant Guide to help guide you through answering this question. Your response can include a description of the solution’s climate mitigations, adaptations, or resilience. If climate compatibility does not seem directly relevant to your solution, describe how climate impacts will not be adversely affected by the implementation of the solution. *(up to 2,000 characters)*

Section 3: Feasibility of the Solution and Applicant Capacity — total weighting 20%

3.1 Describe the technical feasibility of your proposed construction solution — weighting 5%

Explain to what extent your construction solution is technically feasible and what prototyping and testing has been completed. Describe how you will use the Incubation Funding to further develop the solution. This can include additional prototyping, testing activities, activities related to preparing for implementation, as well as activities to adapt the solution to a new context, if applicable. *(up to 2,000 characters)*

3.2 Provide a detailed budget with estimated costs in the template. In the text box, list activities that would be conducted using the Incubation Funding and provide a description of how the activities and items included on the budget will advance the solution — weighting 5%

Note that all funded Incubation activities must be completed by December 14, 2023. The listed activities should be designed to prepare for the implementation of the solution in Stage 2. Choose activities that will strengthen the construction solution, include any final testing activities, and ensure that the scaling, replication, or adoption efforts follow best practices.

Use this standard template to create your budget. Upload your completed budget here. List activities that would be conducted using the Incubation Funding and provide a description of how the activities and items included on the budget will advance the solution. *(Limit of 2,500 characters)*

3.3 List the solution Team Members that will be developing and implementing your solution. Identify any steps you will take to fill gaps on your team (if required) — weighting 5% (up to 500 characters)

Solution team member 1

- a. Full name
- b. Organization and role within that organization
- c. Role for the solution team
- d. Experience, expertise, and capacity to develop the solution

+ Add another solution Team Member

Identify any steps you will take to fill gaps on your team (if required). *(up to 500 characters)*

3.4 Describe the steps you have taken and will take to engage with those who will use your solution, those who might benefit from it, those who will be affected by it, and those who will implement it — weighting 5%

Guidance: Explain the work plan activities that you have included that are related to engagement. Describe how these activities will follow best practices and reflect the principles of people-centered design. Include information on how you will integrate reconciliation principles into your activities. Refer to [Appendix C](#) to help you with this section. *(up to 2,000 characters)*

Section 4: Long-term Viability of the Solution — total weighting 15%

4.1 Describe how you will ensure the operational sustainability of this solution post-implementation — weighting 5%

Guidance: Explain to what extent your solution is operationally sustainable at the current moment. If the path is not yet clear, then describe how you will create a long-term operations plan during the Incubation period to ensure the sustainability of the solution after the implementation period (stage 3) of the Challenge. *(up to 2,000 characters)*

4.2 Describe how your solution could be replicated, scaled, or adopted. List the major partners and collaborators that you will engage with who will develop your solution — weighting 5%

Guidance: Describe what the team will do to encourage replication, scaling or adoption of your solution. Indicate the scope or type of replication, scaling or adoption (larger geographic region, adaptation to a new use, etc.). *(up to 2,000 characters)*

List the major partners and collaborators that you will engage with who will develop your solution

Partner or collaborator 1

- a. Name of organization
- b. Organization description and contributions to the solution — *(up to 500 characters)*
- c. Upload a max 1-page support letter here (optional for this stage 1 submission).

+ Add another partner or collaborator

Upload any support letters in a single PDF document (max 1 page length per support letter). (optional for this stage 1 submission).

4.3 Identify the most important risks related to the implementation of your solution and list the mitigation strategies you will explore

Guidance: Identify the main risks related to the potential implementation of your solution. Describe the potential mitigation strategies you could use or explain how you will use the Incubation Funding to study how you will respond to these risks. *(up to 2,000 characters)*

70017 20221118-002A

