



PROJECT APPLICATION GUIDE

Key Information on NGen

Sustainable Manufacturing Challenge



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NGen Overview

Next Generation Manufacturing Canada (NGen) is an industry-focused, not-for-profit corporation dedicated to building world-leading advanced manufacturing capabilities in Canada. NGen leads Canada's Global Innovation Cluster for Advanced Manufacturing.

NGen aims to:

- Connect and strengthen the collaboration among manufacturers and technology companies to accelerate the development and scale-up of transformative capabilities in Canadian manufacturing,
- Strengthen the competitiveness of Canada's manufacturing sector,
- Drive innovation and investment in advanced manufacturing technologies in Canada,
- Generate new commercial opportunities for Canadian companies in global markets,
- Grow world-leading Canadian enterprises, and
- Develop a modern inclusive workforce with the skills to excel in advanced manufacturing.

What is the Sustainable Manufacturing Challenge Fund?

NGen will invest up to \$35 million in collaborative industry-led sustainable manufacturing projects before January 31, 2028. The goal is to help Canadian technology companies develop solutions that improve the environmental sustainability of Canadian manufacturers. The projects should support Canada's 2030 Emissions Reduction Plan and must be transformative - pushing the boundaries of advanced manufacturing technology and world-class cleantech.

The projects should focus on areas such as:

- Low carbon - fuel, feedstock, energy - applied to manufacturing.
- Innovative solutions for high heat generation - applied to manufacturing.
- Carbon Capture, Utilization, and Storage - applied to manufacturing.
- Tracking and managing GHG (greenhouse gases) emissions across the supply chain.
- Transition to net-zero facilities.

- Smart Manufacturing for efficiency gains and GHG reduction.
- Greener/circular/sustainable materials.
- Other possible areas - please contact the NGen Project Development team at smc@ngen.ca to validate eligibility for the funding challenge scope.

The projects should demonstrate how they will support Canada's 2030 Emissions Reductions targets and transition to a net-zero carbon economy. Here are some key outcomes that projects should address:

- GHG emissions reductions.
- Improved energy efficiencies and lower natural resource consumption.
- Operational efficiency gains.
- Waste reduction.
- Use of recycled/sustainable materials.
- Total life cycle product management and closed-loop manufacturing.
- Circular manufacturing of materials.
- Creation of new revenue streams/business models.

NGen projects must be:

- **Collaborative** - developing industry relationships, building trust, and sharing knowledge, risk, investment, and the resulting benefits. Projects must include at least one small or medium-sized enterprise (SME). Projects are encouraged to include multiple industry partners. They are also encouraged to consider the inclusion of academic and research organizations as subcontractors.
- **Transformative** - involving the development and implementation of Clean Technologies and Advanced Manufacturing capabilities with the potential to confer a significant competitive advantage to the Canadian manufacturing industry.

- **Enduring** - leaving a legacy in skills development, tools, testbeds, intellectual property, and/or business knowledge for Canada's advanced manufacturing ecosystem beyond the partners and timeline of the project.
- **Applied** - focused on solutions, supporting later-stage technology and manufacturing readiness with the potential to generate significant long-term commercial and economic benefits, including jobs maintained and created.

Who is Eligible to Apply?

- Any NGen member company may apply for project funding or apply to be considered as a partner or co-investor in NGen-funded projects. It is free to become a member, please register at <https://www.ngen.ca/membership>.
- Recipients of NGen funding must be a business registered in Canada and have a value-added presence beyond a sales office.
- Funding recipients must be:
 - for-profit organizations,
 - not-for-profit organizations that facilitate and fund research and development on behalf of the ecosystem and whose funding and/or revenue is received primarily from private-sector or industry organizations,
 - non-federal Crown corporations whose funding is from commercial activities,
 - indigenous organizations.
- Other publicly funded not-for-profit organizations, post-secondary institutions, federal Crown Corporations, and government departments or agencies are not eligible to receive Global Innovation Cluster funding directly, although they may bring their contributions to projects or be subcontracted by funded recipients to carry out project activities.
- International organizations (offshore companies and research organizations without a registered business presence in Canada) may also participate in NGen-funded projects, but any project activity undertaken by these organizations will not be eligible for NGen funding.

Involvement of the National Research Council of Canada (NRC):

- NGen welcomes the participation of the NRC in its projects. The mechanism for the NRC to participate in a project would be through a subcontract to an industry partner. There are options on how NRC will be treated in an NGen project:
 - NRC will be part of the consortium's Collaboration Agreement, recognizing they bring value to the consortium, which may be IP or support for project delivery.
 - NGen will recognize NRC as a partner in publications and promotion of project activity.
 - NRC's portion of the project would be subcontracted and directed by an industry partner – the agreement is solely between the industry partner and the NRC. NGen may recognize NRC as a partner in publications and promotional activity as agreed to by the consortium.

Basic Eligibility Requirements

- All projects must demonstrate the development and application of ideally a combination of Clean Technologies, Advanced Manufacturing Technologies, and Greener Manufacturing Processes that enable sustainable manufacturing in Canada and help the country move towards Canada's 2030 Emissions Reduction Plan.
- Projects must be Collaborative, Transformative, Applied, and Enduring.
- Projects would ideally include advanced manufacturing and clean technology expertise.
- Projects should demonstrate meaningful collaboration by a minimum of two industry partners.
- At least one SME partner needs to be involved. Applicants are strongly encouraged to include more SME partners as well as academic and research partners in the project.
- Projects must have the potential to deliver significant commercial benefits and jobs both within the consortium and beyond.
- Project participants must have robust project management processes in place. Project work packages, milestones, timelines, and estimated costs should be well-defined.
- The total amount of eligible project costs should be between Cdn\$2 million and Cdn\$15 million. Any minor deviations to this will require written NGen approval.
- For projects with total eligible costs of more than Cdn\$10 million, applications will be required to go through a Dual-stage Assessment and Approval process.

- The expectations for these projects are much higher in terms of economic and environmental impact, level of collaboration, and the impact made on the advanced manufacturing ecosystem.
- The maximum project value allowed for NGen funding support is Cdn\$15 million. Projects with costs over this amount will be accepted; however, NGen funding support will be capped at Cdn\$5.25 million.
- NGen will reimburse up to 35% of total eligible costs incurred by industry partners.
 - No single partner may receive more than 70% of the NGen funding.
 - The acquisition cost of new equipment to **support sustainable manufacturing** may be claimed, but it cannot be more than 25% of the total eligible project costs.
 - Subcontracting cannot be more than 25% of the total eligible project costs.
 - An amount of product development, testing, and validation is allowed if it can be demonstrated as critical for the advanced sustainable manufacturing goals, and it cannot be more than 15% of the total eligible project costs.
- Project partners cannot be subcontractors for labor services or consultants in the project.
- Independent experts will evaluate and recommend which projects NGen will fund.
- NGen is a not-for-profit organization. Project administration fees are applied to projects as a condition of funding. The fee is a non-refundable project administration fee payable to NGen, equal to 5% of the total cost of the project. Payment of the fee is a non-negotiable condition of project funding. 3.5% is payable at the point of project launch and 1.5% is payable within the subsequent 9 months. The fee enables NGen to support projects through its project monitoring and claims management process.

Project activities that are out of scope and will not be funded include:

- Activities where benefits accrue to a single firm or organization.
- Projects that do not demonstrate collaborative partnerships with a manufacturer and a clear demonstration of improving sustainable manufacturing processes.
- Projects that would be undertaken at the same scale or scope and within the same period without NGen funding.
- Projects that focus primarily on product development or the design of products themselves. The project must focus on the development and/or scale-up of advanced sustainable manufacturing processes.

- Projects related to experimental or theoretical work without any direct commercial application or use. Projects must demonstrate a strong commercialization strategy and path to commercial success.
- Production activities themselves or activities that subsidize full-scale production.
- Capital investment for production or for purposes not related to the project. Equipment not related to sustainable manufacturing technology is out of scope for reimbursement.
- Activities that could be viewed as anti-competitive.
- Any routine or periodic changes made to existing products, production lines, manufacturing processes, services, and other operations in progress, even if those changes may represent improvements.
- Repeat deployments of previously developed technologies. The challenge focuses on novel transformative sustainable manufacturing technology applied in Canadian advanced manufacturing settings.

APPLYING FOR PROJECT FUNDING

NGen Support for Project Applications

NGen's project team may assist in the development of project applications before their assessment. Upon request, NGen staff may:

- Provide advice and guidance for funding rules, eligible activities, and project requirements.
- Make suggestions that might augment project plans.
- Identify potential project partners.
- Identify other sources of funding for project activities.
- Provide advice for improving Intellectual Property plans or identification of IP used in or developed by the project.

Support can be requested by e-mail at smc@ngen.ca.

Emailing confidential or sensitive documents is not allowed. NGen can support the review of project information through the secure application portal.

Project Screening

NGen will screen all proposals to ensure they meet basic eligibility requirements. Applicants will be asked to:

- Complete the Application Agreement – template can be accessed through this <https://www.ngen.ca/funding/sustainable-manufacturing>
- Certify they have read, understand, and are willing to comply with NGen's project requirements.
- Describe the purpose of their project and how it contributes to new Advanced Manufacturing capabilities in Canada, including innovative manufacturing processes, clean technologies, and advanced manufacturing technologies.
- Indicate how their project is collaborative and identify lead private sector partners.
- Certify that private sector partners looking for funding are registered in Canada and that the project will be carried out in Canada.
- Certify that their project would not be undertaken in the same form without NGen funding.
- Provide an estimate of project costs and indicate that they are willing to invest in the project within the timelines of NGen's funding horizon.
- Certify that they have adequate financial means and project management capabilities to carry out the project.
- Agree to provide information necessary for NGen to conduct Financial Due Diligence.

Financial Due Diligence

NGen will undertake a financial assessment of each project partner to ensure that they will be able to support their commitment to the project for its entire duration. Factors that will be evaluated include but are not limited to Profitability, Liquidity, Leverage/Indebtedness, and cash flow.

In the event, that the supporting financial information provided by the applicants is insufficient to demonstrate the ability to complete the planned project as proposed, NGen will:

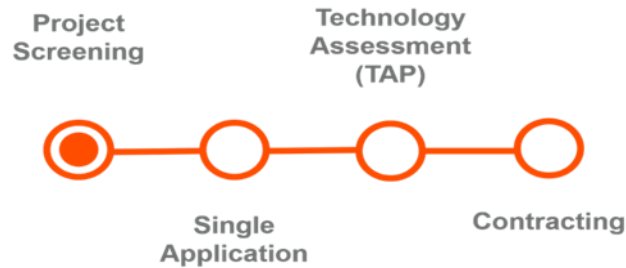
- Request additional information from the participating member.
- Reject the proposed program if the project team cannot fund the proposed project to completion.
- Approve the project for a reduced amount of NGen funding until such a time that the participating members can provide further assurances on liquidity.

The Application Approval Process

The total estimated cost of the project (total of NGen, industry, and other eligible government funding) determines the steps required for project approval.

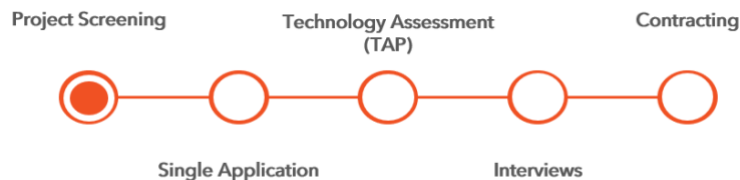
For projects with costs up to Cdn\$10 million:

- Each project application will be assessed based on the answers to the 10 questions.
- Responses are equally weighted in assessments.
- Applications will be scored out of 100 marks (10 marks per question) by independent experts.



For projects with costs of more than Cdn\$10 million, the applicants will also:

- Be required to submit for a Dual-stage Assessment and Approval process.
- Need to submit answers to the same ten questions but will have a higher word count to provide more detailed responses.
- Applicants will be invited to an interview, depending on the results of the assessment.



Independent Expert Assessment Panels

All project proposals will be subject to an independent assessment process undertaken by up to five external experts selected by NGen. The expert assessment panels will ensure that approved projects are of high quality, meet NGen's strategic objectives, and will recommend projects for funding on a fair basis.

NGen's external experts include former CEOs of manufacturing and technology companies, former senior manufacturing, engineering, and technology executives, senior personnel at universities and colleges, and executives from business consulting organizations. The Assessors have a variety of sector-specific manufacturing and technology backgrounds and technical and strategic expertise.

NGen aims to fund the highest quality projects based on the independent assessment of industry experts.

NGen reserves the right to take a portfolio approach across the call for proposal project areas.

The identity of the experts participating in individual project assessments will be kept confidential. Assessors will sign non-disclosure agreements and conflict of interest disclosures to ensure independence and confidentiality.

Acceptance or Rejection

Following an Assessment and Recommendations from the Independent Assessors, NGen staff will advise all applicants directly if their project has been accepted for funding or not.

Feedback

Applicants whose projects are not recommended for approval at the initial proposal or full application stage will be given a summary of how their project was evaluated, outlining the reasons why they were not approved and will be given recommendations to strengthen their applications. These applicants may re-apply if the funding stream is still active or if there are future applicable funding calls.

Program Timeline

Please refer to the Program website, <https://www.ngen.ca/funding>, for the most updated project guides, templates, and webinar recordings.

Two application deadlines must be met to submit a compliant proposal:

1. **Screening Deadline** - The first is a mandatory submission for screening so that NGen can ensure that the project is in scope and can complete financial due diligence.

Deadline: **June 26, 2024, at 5:00 pm Eastern Time.**

- The screening includes a summary of the project intent, the partners, and the high-level financials.
- Failing to meet this deadline will mean the proposal will not be considered for funding.

- Members can apply for funding through the member portal (<https://portal.ngenconnects.ca/opportunities>), under Funding Programs. The portal will be open to receive project registrations by March 25, 2024.

2. **Final Application Deadline** - Projects that have been successfully screened will have to submit their final application before **September 18, 2024, at 5:00 pm Eastern Time**. Once submitted, applications will be sent to an independent third-party panel for assessment.

Applicants will be **notified of assessment results** shortly after the completion of the Assessment process. Projects that are recommended for funding will proceed to the contracting phase.

An **interview will be scheduled on October 24th or October 25th**, for select companies with project costs over CAD 10 million.

Projects are expected to complete contracting and officially launch by December 2024. It is recommended that project teams review the Collaboration Agreement and the Master Project Agreement drafts on the NGen website before applying.

All projects must be completed, and claims filed no later than January 31, 2028.

Summary of Key Dates

Application Portal Opens	March 25, 2024
Project Screening Deadline	June 26, 2024 (5 pm EST)
Collaboration Event	May 15, 2024
Writing a winning application - Workshop	July 10, 2024
Final Application Deadline	September 18, 2024 (5 pm EST)
Interviews for dual-stage projects (> CAD 10 million), for applicants invited to interview, following written application assessment	October 24-25, 2024
Completion of the contracting phase and the official start of the project	2 months from project approval

Application Guidance - Projects Cdn\$2 million and up to Cdn\$15 million

Applicants who meet eligibility requirements will have to submit a formal application.

Answer Ten Questions

- For projects with up to Cdn\$10 million in total project costs, there will be a maximum of 7,000 characters to answer each question. No external links are allowed.
- For projects with more than Cdn\$10 million in total costs, there will be a maximum of 10,000 characters to answer each question. No external links are allowed.
- Three (3) appendices:
 1. Project Plan (DOC, XLS, MSP, PDF)
 2. Risk Register (DOC, XLS)
 3. IP Tables (DOC)
- Financial Workbooks – one per partner to be input into the fields in the application portal.

The template for the IP Tables is available through this www.ngen.ca/funding/sustainable-manufacturing. Refer to the IP Guide for additional information. There are no templates for the Project Plan or Risk Register. It is expected that the company uses the project management tools available within the company.

Graphs, charts, and images can accompany the application.

Applications will be assessed and scored by external independent experts. Each project application will be assessed based on 10 questions by up to 5 independent Assessors. Responses are equally weighted in assessments. Applications will be scored out of 100 marks (10 marks per question). The Assessors will answer two yes/no Gateway questions.

- Is the project in scope for funding for this challenge?
- Is the project recommended for funding based on the overall application and in particular the business case presented?

If the majority of the Assessors answer **no** to either gateway question, the application, regardless of the overall score out of 100 will not be considered for funding. It is recommended throughout the application process that advice is sought from the NGen project team to ensure that the project meets the scope criteria.

Ten Assessment Questions – Guidance

1. What is the opportunity the project addresses?

RESPONSE GUIDANCE

- Outline the big-picture motivation and the advanced sustainable manufacturing objectives the project intends to achieve.
 - This provides the high-level introduction to the overall project and key project elements.
- Provide an overview of the project considering the clean technology, advanced manufacturing technology, manufacturing processes, and business impacts.
- Outline what the project team needs to do to successfully achieve the project objectives within the desired time and budget.
 - What are the specific challenges, research questions, and/or technical complexities that must be addressed within the project's time limit?
- Describe the nature of the challenges facing the partner organizations and/or potential customers, along with the potential market challenges or barriers to entry that the project addresses.
- How will the outcomes of the project overcome these challenges?
- Clearly describe the project partners and how the partners will collaborate to achieve the overall opportunity the project addresses.

2. What is transformative about the project?

RESPONSE GUIDANCE

- Clearly define the transformative advanced manufacturing and sustainable manufacturing aspects of the project and what new knowledge is being created by each partner organization.
- Identify the extent to which the project is transformative and innovative both technically and commercially:

- Are the clean technologies and/or advanced manufacturing technologies new or are existing technologies being applied to develop unique transformative sustainable manufacturing solutions?
- Outline the current state-of-the-art manufacturing processes and technologies for the specific technology, industry (or sector) and describe how this project pushes the boundaries in the context of advanced sustainable manufacturing and process innovation.
- Will the project lead to technological and business advantages that will allow Canadian companies to leapfrog global competitors and become world leaders in the application and/or production of clean technologies and advanced manufacturing technologies?
- Describe how the project could be recognized globally as conferring or strengthening Canadian leadership in advanced manufacturing and achieving Canada's 2030 Emissions Reduction goals.
- Please highlight the Technology Readiness Level (TRL) and/or Manufacturing Readiness Level (MRL) progression and the strategic benefits of this project.
- Explain how the project will support each partner organization's transformation.
- Describe any novel research that will be undertaken in the project. Highlight and explain the timeliness and novelty of these research aspects of the project in an industrial context.
- Outline the background intellectual property expected to be leveraged during the project as well as the foreground intellectual property expected to arise during the project. Build this narrative using the IP Tables that will be uploaded as an appendix (please note IP is not just patents and includes trade secrets, know-how, copyrights, registered industrial design, etc. Refer to the IP Guide for definitions). Include results of any Freedom to Operate assessment.
- Provide evidence for the statements included in the response to this question. This could include the results of:
 - patent searches,
 - competitor analyses,
 - literature surveys,
 - benchmarking,
 - strategic analysis/roadmaps.

3. What is the nature and size of the potential market the project will address? How will the results of the project be commercialized?

RESPONSE GUIDANCE

For each project partner:

- Describe the market(s) that are being entered with the development of new Clean Technologies and/or Advanced Manufacturing Technologies, and/or describe the existing market that the project companies are operating in and how this advanced manufacturing opportunity will enhance competitive position within the market.
- Consider including details of and providing evidence for statements regarding:
 - the target market, including the size, margins, market leaders, key competitors, price competition, barriers to entry,
 - dynamics of the market(s) including historical and projected growth rates,
 - quantify the market differentiators for expected project outcomes,
 - identify and analyze adjacent markets where the new knowledge could be commercialized,
 - specific target product, platform, and service applications underpinning the market,
 - the expected share of the market to be captured because of this project,
 - the opportunity timeline and when benefits are expected to be realized,
 - the impact of the project on existing or future customer relationships.
- Please include a compelling commercialization plan that describes how this proposal's benefits will be achieved. The commercialization plan should highlight the new business opportunities anticipated by each partner individually, and in the collaboration.
 - Describe what will be commercialized, such as new or improved products, services, processes, capabilities, Intellectual property, or applications.
 - Describe the potential to commercialize the outcomes in the existing market, future, or adjacent markets as defined above.
- Describe how each of these outputs will be achieved along with a timeline for commercialization. Consider including:
 - A roadmap showing the route to the market.
 - The number of manufacturers or facilities the technology will be implemented in.
 - Highlight the competitive advantage and value proposition.

- Use the IP Tables (Appendix 3) to indicate the parties (including any third parties) expected to develop, own, and/or access each of the listed Project IP assets, including access via eventual licenses to manufacture, sell, and/or use, or direct sales.
- Discuss the intent and rationale for the protection of the Project IP (including the targeted domestic and foreign jurisdictions in which patent protection will be sought, if applicable).
- Discuss any opportunities for the commercial leveraging of the Project IP by its owner(s), by other consortium partners, and, beyond this, by other NGen members.

4. What Sustainable Manufacturing benefits is the project expected to deliver, both qualitatively and quantitatively, to those in the consortium and over what timescale?

RESPONSE GUIDANCE

Please ensure there is a detailed qualitative and quantitative review of the sustainable manufacturing benefits to be delivered by this project. These benefits should be outlined:

- How are they aligned with Canada's 2030 Emissions Reduction Plan?
- What are the industry standards and applicable environmental roadmaps?
- Describe the Sustainable Manufacturing KPIs and the quantitative impacts of the technology or processes being developed in the project.

The sustainable manufacturing benefits should also show how they provide business advantages or new business opportunities for each partner in collaboration and individually.

Describe in detail the significant environmental benefits that will be developed and implemented in the project. Examples may include, but are not limited to:

- GHG reduction.
- Process and resource efficiency.
- Better energy management.
- Reduced volatile organic compounds.
- Reduced land degradation.
- Reduced water usage.
- Reduced emissions due to more efficient and optimized transportation and distribution within the supply chain.
- Use or creation of sustainable materials.

- Reuse, recycle, and remanufacturing.
- Other life cycle benefits.
- Other sustainability opportunities.

Please describe how these benefits were quantified, specify the baseline that was used for the calculations, and how the final environmental impacts were determined.

5. What economic benefits is the project expected to deliver to those inside and outside the consortium, and over what timescale?

RESPONSE GUIDANCE

Projects must deliver significant economic benefits to their collaborating partners. Identify the economic benefits the project will have for participating project partners and other suppliers/partners inside and outside the project. How does the partnership help each partner achieve economic growth?

The economic case can be further strengthened by representing additional direct and indirect economic benefits. Examples include:

- The potential economic opportunity to implement the solutions in multiple manufacturers/facilities.
- Include a table showing the job impact for each project partner (and if appropriate for suppliers) over the project's duration, 0-2 years after, and 3-5 years after.
- Please identify:
 - the number of direct jobs created,
 - the number of direct jobs maintained/safeguarded,
 - the number of indirect jobs created within the supply chain (consider referencing multiplier effects based on direct jobs),
 - the number of indirect jobs maintained/safeguarded.
- Highlight the type of jobs that the partners will create.
- Ensure tables in the application portal show the expected additional revenue that will be generated for each partner: 0-2 years after the project and 3-5 years after the project.

- Indicate any commercial opportunities for other manufacturers/industry sectors arising from the application of the technology. Define the economic benefits that the project can have on the whole Canadian supply network upstream and downstream.
- Highlight if the project will create spin-off business opportunities (new businesses, new or expanded supplier or partner relationships) in Canada.

6. What is the impact on the broader advanced manufacturing ecosystem and on Canadians?

RESPONSE GUIDANCE

Projects must provide enduring ecosystem benefits. Benefits cannot accrue to one partner; the project must leave a legacy beyond the partners for Canadian manufacturing.

It is also important to describe any expected positive social impacts, for example:

- Diversity and inclusion, including activities undertaken to ensure that women and underrepresented groups are meaningfully represented in, and benefit from the project.
- Enhanced quality of life.
- Social inclusion.
- Health and safety.

Describe how the project will create a widespread positive impact and leave a legacy for advanced manufacturing in Canada beyond the partners including:

- Regulatory.
- Certifications.
- Standards development.
- Supply chain.
- Workforce development
 - How will the project encourage the engagement of women and underrepresented groups in the workforce?
 - Outline the opportunities for attracting, training, and developing a highly skilled talent pool (both existing and new staff).

- Industry knowledge
 - Will the project serve as a model or learning platform in Advanced Sustainable Manufacturing for others? For example, providing tours, use cases, and best practices.
 - Will the project generate IP that others can use to accelerate technology applications or scale up sustainable manufacturing in Canada?
 - Will the project influence the activities of colleges, universities, or research institutes to support advanced manufacturing education, resulting in the diffusion of this knowledge back into Industry?
- Collaborative networks
 - Will the project further enhance the ability of industry partners, post-secondary education institutions, research centers, and other private and public organizations to work together to strengthen advanced manufacturing in Canada?
 - Describe how the project could build greater capacity / provide opportunities and capabilities supporting Small and Medium Enterprises.
- Infrastructure support
 - Will the project help to develop or support the use of tools, testbeds, or data platforms that will foster future technology development, adoption, scale-up, and commercialization activity in Canadian manufacturing?

7. What is the overall project plan?

A project plan that outlines the necessary steps and includes a Gantt chart should be uploaded separately onto the application portal.

RESPONSE GUIDANCE

- Describe the overall Project Plan, identifying key project management tools and mechanisms (e.g., Quality Management Systems) that will be implemented to provide confidence that sufficient control will be in place to deliver the project on time, within budget, and according to the specifications.

- Provide a summary of the project, including work package descriptions, a description of the key project milestones, resource, and management requirements, and key metrics to measure success.
- As part of Appendix 1 provides a detailed project plan consisting of a Gantt chart that details the Work Packages, tasks, timelines, milestones, deliverables, dependencies, resource allocation for all partners, and work package costs.

The assessment and scoring for this question will consider both the written answer and Appendix 1. In evaluating the project plan, the Assessors will consider the following:

- Is there sufficient detail provided when considering the complexity of the project?
- Is there sufficient detail to understand the tasks involved and the resources required?
- Is the timing of the key milestones realistic?
- Is there a demonstration of sufficient resource commitment and capability to undertake the project?
- Is the Project Plan aligned with the costs described in the response to Question 10?

8. What is the overall risk management plan?

A Risk Register should be uploaded separately into the application portal.

RESPONSE GUIDANCE

NGen recognizes that projects of this type are inherently risky and therefore need to have adequate arrangements for managing this risk.

- Describe the Risk Management approach, including the management tools and mechanisms to identify, evaluate, and address the project risks.
- Key risks identified in the risk register can be elaborated as a response to this question.
- Provide a comprehensive risk analysis as part of the risk register Appendix 2.
- Identify the key risks within the project. Please provide enough information in the risk statement so that the cause, uncertainty, and effect are clear.
- Provide an analysis of the likelihood and impact of each risk and provide a relative ranking for each risk.
- Identify the management strategies for each risk - Avoid, Transfer, Mitigate (reduce), Accept (and manage)

- For complex, high-risk projects, it would be advantageous to provide the effect of each risk management strategy in terms of the residual risk.
- Include at least the following risk categories:
 - Technical,
 - Commercial,
 - Managerial,
 - Resource
 - Financial,
 - Intellectual Property
- All relevant risks should be identified. Additional risk categories could include and are not limited to:
 - Freedom to Operate,
 - Safety,
 - Regulatory,
 - Legal,
 - Environmental,
 - Supply chain risks.
- Assessors will be looking to see that all key risks are identified and that there is sufficient risk in the project to warrant NGen funding.

9. Describe the collaboration and the partner skills, experience, resources, and access to facilities to deliver the identified benefits.

RESPONSE GUIDANCE

- Describe the collaborative nature of the project and how the consortium working together will achieve more than if they were working individually.
- Describe how partners will develop relationships, build trust, and share knowledge.
- Describe any additional collaborative activities related to suppliers, sub-contractors, and academic or research organizations involved in the project.
- Demonstrate there are appropriate management reporting and governance structures between the consortium partners to manage and deliver the project. Consider including a governance structure diagram.

- Consider using the IP Tables (Appendix 3) to demonstrate the collaborative nature of the project wherever applicable in terms of joint development of foreground IP and/or access to background and foreground IP during and after the project.
- Demonstrate that the consortium has the right skills and experience to deliver the project successfully.
 - Include a high-level description of the partners' record of accomplishment in achieving similar projects.
- Describe the accomplishment of project team members in undertaking and exploiting the results of projects to show the consortium's capability to develop and commercialize the technology.
- Demonstrate appropriate access to facilities and resources, including identifying and allocating appropriate space and infrastructure for the project to succeed (consider floor space, specialized equipment needs, specialized resources, etc.).

10. Why is NGen funding being requested, and what is the financial commitment for the project?

RESPONSE GUIDANCE

Part 1 – Why is NGen funding being requested?

Projects must clearly articulate why NGen funding is being requested, how it will benefit the project, and demonstrate that the project activities are in addition to the regular business undertakings of the applicants.

Questions to consider:

- Will the project's technical or commercial scope be affected by NGen support?
- Why is NGen funding critical to undertake the project as proposed?
- Does NGen funding allow the project to be undertaken differently (more quickly, at a larger scale, with more partners)?
- Would the collaborative partnerships have been formed without the project?
- Is the project too risky for commercial investors?

Part 2 – Financial Commitment

Provide a breakdown of the costs per work package and by milestone, showing how it aligns with the project plan. Consider adding this to Appendix 1 or described in this section.

- Using the Financial workbooks, indicate the anticipated project costs, making clear the level of contribution from all project participants and the level of funding required from NGen.
- Supporting information and an explanation of extraordinary or specialized project costs should be provided in this section.
 - For each partner, ensure key points relating to costs are described per cost category.
 - Ensure that project funding is not subsidizing production.
- Consider providing additional explanations of the eligible costs in the finance workbooks. Including:
 - **Labor:**
 - Justification for the use of labor with especially high rates.
 - **Subcontract:**
 - Explain the reason for and use of subcontractors, their impact on the project, and why they are not formal project partners.
 - **Equipment:** It is essential that:
 - The equipment purchase is linked to the project goals.
 - The equipment is linked to the R&D capabilities supporting the creation of a new advanced sustainable manufacturing capability. NGen cannot subsidize full production.
 - It is creating a new capability that does not already exist within the organization.
 - It is not the purchase of multiple similar pieces of equipment that would be seen as subsidizing future production activities.
 - Considering the points above, please describe the capital required with a justification of why it is necessary to achieve the goals of the project and a rationale for any pieces of capital equipment exceeding CAD 1 million.
 - **Materials:**
 - Please explain any excessive amounts of material or the use of expensive materials.
 - Projects are not intended to subsidize production; the amount of material listed should be for the project's R&D aspects. It should be linked to proving the advanced sustainable manufacturing capability.

- It is recognized that other funding sources may be required to complete the project.
 - Specify other government or private sector funding sources necessary to achieve the project goals.
 - Describe other private sector co-investment/financial contributions that this project will attract in the short, medium, and long term, identifying any potential follow-on funding.
 - Outline other government funding, including stacking limits, that this project has secured or plans to secure against the project.
 - Describe how the project can help attract or retain and promote industry investment and product mandates in Canada.
- In evaluating this question, the Assessors will consider the following questions:
 - Has the project presented a clear case that these activities are in addition to regular business undertakings?
 - Has a realistic budget breakdown been provided, and is the budget realistic and reasonable for the scale and complexity of the project?
 - Is a financial commitment from other sources demonstrated for the balance of the project costs?
 - Is the project providing value for money for NGen funding? Considering the project's total potential impact and return against the amount of funding being requested.

Upon agreement

Upon the final recommendation of the independent assessment panel, NGen will conclude a Master Project Agreement (MPA) with selected funding recipients detailing project requirements, reporting, and NGen's compliance obligations.

There must be a Collaboration Agreement in place among the members of the project consortia defining the roles of project partners and joint risk management provisions.

The Collaboration Agreement must also set out how foreground IP arising in projects will be shared among project partners. In addition, project participants must indicate the types of foreground IP they would be prepared to share with other NGen members, to whom, and on what conditions.

Templates

[Application Agreement](#)

[IP Tables](#)

References

[NGen Intellectual Property Strategy](#)

[Project IP Plan Guide for Applicants](#)

[Finance Guide](#)