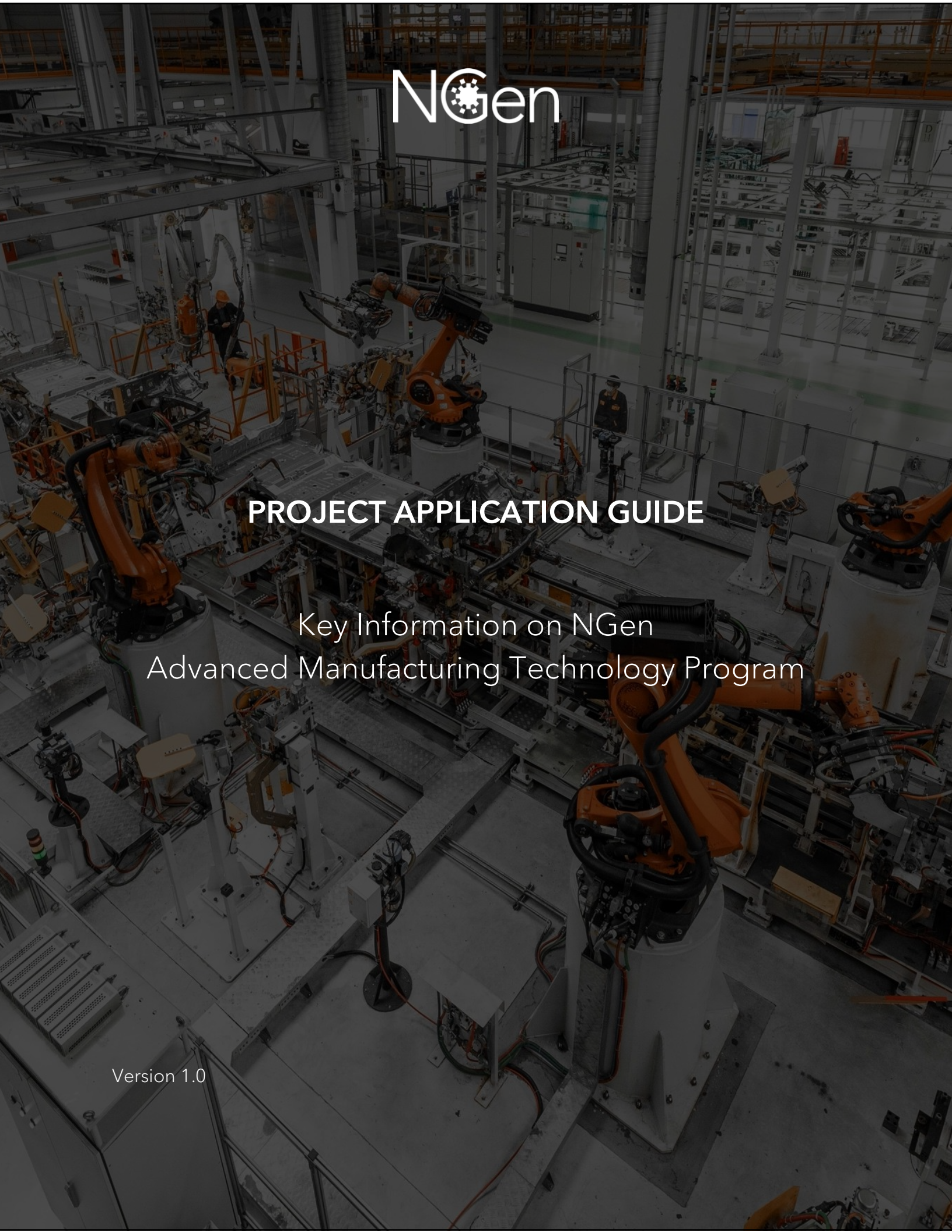


NGen

PROJECT APPLICATION GUIDE

Key Information on NGen
Advanced Manufacturing Technology Program

Version 1.0

Contents

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.

Advanced Manufacturing Technology Program Fund

Advanced digital, materials, and production technologies are helping manufacturers respond to and take advantage of shifting market dynamics by improving existing production and business processes, improving productivity, reducing costs and scaling up the production and commercialization of new products and services. The objective of this Advanced Manufacturing Technology Program is to strengthen the competitiveness of Canada's manufacturing sector, drive more 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 and inclusive workforce with the skills to excel in advanced manufacturing.

NGen will invest up to $35 million of Global Innovation Cluster funding in collaborative industry-led projects, to be completed before January 31, 2028. Furthering the objective of this program, this program will co-invest in collaborative, industry-led projects that are aimed at de-risking, commercializing, and transforming manufacturing capabilities using **novel world-class technology**.

The goals of this challenge are to:

- Create jobs for Canadians
- Create value for the Canadian economy
- Develop new processes throughout manufacturing value chains
- Develop novel manufacturing processes to scale Canadian manufacturing
- Increase the quality and reduce overall cost of manufacturing in Canada
- Promote sustainable and environmentally conscious manufacturing
- Build flexibility into production processes

All NGen projects **must** be:

Collaborative, developing industry relationships, building trust and sharing in knowledge, risk, investment and the resulting benefits. Projects must include a minimum of two un-associated Canadian industry partners, with at least one being a small or medium-sized enterprise (SME). Projects are encouraged to include multiple industry partners. Projects are also encouraged to consider the inclusion of academic and research organizations as subcontractors;

Transformative, involving the development of novel world-class Advanced Manufacturing capabilities with the potential to confer a significant competitive advantage to Canadian industry.

Applied, focused on solutions, supporting novel manufacturing technologies with a clear short-to-medium path to commercialization and a potential to generate significant long-term commercial and economic benefits, including jobs maintained and created.

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.

Eligibility

Applicant Eligibility Requirements

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.
- Eligible organizations as formal funding recipients must be one of the following:

    - 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, however this is not mandatory. 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.

Consortium Eligibility Requirements

All projects must demonstrate the development and application of a novel, world-class advanced manufacturing technology or process innovation.

- Projects must be Collaborative, Transformative, Applied, and Enduring,
- Projects need to include manufacturing and technology expertise,
- All projects need to demonstrate meaningful collaboration with a minimum of two un-associated industry partners, with at least one partner being an SME.
    - Applicants are strongly encouraged to include more SME partners as well as academic and research partners,

- 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,
- Projects are expected to start no earlier than April 1st, 2026, and be completed no later than January 31st, 2028.
- The minimum project value allowed is CAD $1.5M. Any minor deviations to this will require written NGen approval. The maximum project value allowed for NGen funding support is CAD $8.0M. Projects with total value over this amount will be accepted; however, NGen funding support will be capped at CAD $3.2M.
    - NGen will reimburse up to 40% of total eligible project expenses incurred by industry partners,
    - No single partner may receive more than 70% of the total NGen funding,
    - Project partners cannot also be a sub-contractor for labour services or a consultant within the project,
    - Subcontracting cannot be more than 30% of the total eligible project costs,
    - The acquisition cost of new equipment to support the project needs may be claimed, but it cannot be more than 20% of the partner's eligible project costs for an SME partner,
    - The acquisition cost of new equipment to support the project needs may be claimed, but it cannot be more than 10% of the partner's eligible project costs for a non-SME partner,
    - An amount of product development, testing, and validation is allowed within a project as long as it can be demonstrated as being required to support the achievement of the advanced manufacturing goals. No more than 15% of the funding allocation can be related to product development.

NGen is a not-for-profit organization. Project administration fees are applied to projects as a condition of funding. The fee is a one-time, non-refundable project administration fee payable to NGen equal to 5% of the total cost of the project as defined in the Master Project Agreement (MPA). Payment of the fee is a non-negotiable condition for project funding. The fee enables NGen to support projects through its project monitoring and claims management processes.

Projects and activities out of scope will not be funded and include:

- Non-transformative:
    - Projects that involve minor upgrades, routine maintenance, or standard equipment replacement.
    - Replication or direct adoption of off-the-shelf technologies without significant customization, integration or advancement.
    - Projects that do not demonstrate a clear advancement in manufacturing capability, productivity, or competitiveness.

    - Projects that would be undertaken at the same scale or scope and within the same period without NGen funding.
    - Production activities themselves or activities that subsidize full-scale production.
- Non-manufacturing focused initiatives:
    - Projects primarily focused on business model innovation, marketing, sales, or customer engagement strategies.
    - Initiatives centered on leadership development or organizational change management without a direct link to transformative manufacturing outcomes.
- Research-only or early-stage R&D:
    - Projects that are not ready for technology demonstration or integration.
    - Projects lacking a clear path to commercialization or real-world manufacturing application within a reasonable timeframe.
- Standalone software or IT projects:
    - Development of enterprise software, ERP systems, or IT infrastructure.
    - Projects focused solely on data management or analytics.
- Projects without industry collaboration:
    - Proposals that do not include meaningful collaboration between manufacturers and technology providers.
    - Projects where benefits accrue to a single firm or organization.
    - Project activities that could be viewed as anti-competitive.
- Projects that focus solely on product development or design of products:
    - An amount of product development, testing, and validation is allowed within a project as long as it can be demonstrated as being required to support the achievement of the advanced manufacturing goals. No more than 15% of the funding allocation can be related to product development.

Project Funding Process Overview

A dedicated portal for applications can be accessed by NGen Member organizations. The portal is required to enter the project information.

To apply for funding, start by joining NGen as a member (www.ngen.ca/join). Then apply for funding within the NGen portal by creating a new project. It is recommended that the project be registered early on the NGen portal so that NGen can review and support the project through the screening process. This screening process ensures that the project is eligible for funding before completing the full application.

NGen Support for Project Applications

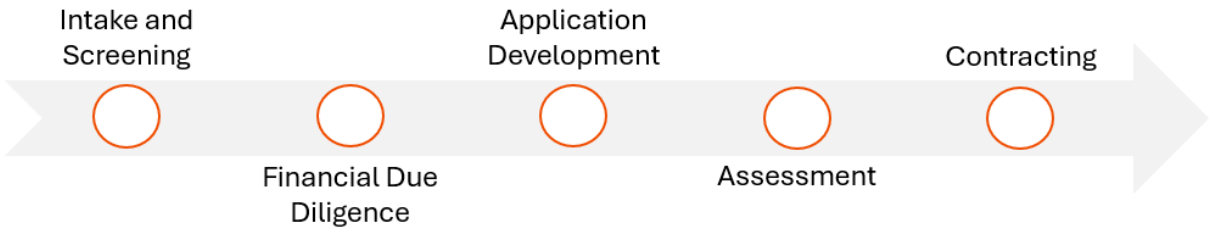
NGen's Project Team may assist in the development of Global Innovation Cluster project applications prior to their assessment. Upon request, NGen staff may:

- Provide advice and guidance with respect to scope, 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 identifying and/or improving the management of IP to be used in or developed by the project.

Resources are limited, and the support will be provided on a first-come, first-serve basis. Support can be requested by email at AMTP@ngen.ca.

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



Intake and Screening Process

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

- Complete an Application Agreement (https://www.ngen.ca/funding/challenge/advanced-manufacturing-2025)
- Confirm that they have read, understand, and are willing to comply with NGen's eligibility rules.
- Describe the purpose of their project and how it contributes to new and transformative advanced manufacturing capabilities in Canada. Two project description fields are made available for each project. Description 1 is confidential information disclosed to NGen for Screening only, and Description 2 is shareable publicly by NGen.
- Confirm that their project is collaborative and identify the formal consortium partners.
- Confirm that consortium partners seeking funding are registered businesses with a value-added presence in Canada, and that the project activity will be carried out within Canada.
- Confirm 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.
- Confirm that they have adequate financial means and project management capabilities to carry out the project.

- Confirm that there is an SME in the project.
- Attest that they follow Canadian Sanctions and Environmental Assessment regulations.
- Agree to provide information necessary for NGen to conduct Financial Due Diligence.

Financial Due Diligence (FDD)

NGen will undertake a financial assessment of each participating project partner to ensure that they will be able to support their commitment to the project for its entire duration, layered on top of regular business operations. Factors which will be evaluated include but are not limited to: Profitability, Liquidity, Leverage/Indebtedness, and Cashflow.

For further details and guidance, please refer to the Finance Guide for this Advanced Manufacturing Technology Program funding challenge.

Application Process

Once the consortium has been successfully screened and the project has advanced to the "Application" stage, a full application will be prepared by the consortium responding to application questions, creating detailed project budgets, and outlining direct and indirect economic impacts.

Applications will be scored out of 100 marks (10 marks per question) by independent experts.
The responses are equally weighted in assessments. Subsequently, 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?

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

Independent Expert Assessment Panels

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

All project proposals will be subject to an independent assessment process undertaken by up to five external experts. The expert assessment panels ensure that recommended projects are of high quality, meet NGen's strategic objectives, and are selected fairly. These panels may also include Government representatives.

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

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 identity of 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

NGen reserves the right to request additional clarifying information during the assessment window to ensure a full evaluation of the project, which may include an interview with the assessment panel. Additional information may result in a partial or full reassessment of the project. The interview may not be required for every project.

Following an assessment (and interview, if required) and recommendation from the independent assessors, NGen will advise applicants directly if their project has been accepted for funding or not.

Feedback

All applicants will receive feedback from the assessment process, outlining why they were approved or not, and provided recommendations to strengthen their application/project. Applicants/projects not approved 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, (insert challenge webpage), for the most updated project guides, templates, and webinar recordings.

Three deadlines must be met to submit a compliant proposal:

1. Intake 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.
    - Intake deadline is August 20th, 2025 at 5 pm Eastern Time.
    - Please review the "Intake and Screening Process" section highlighting the specific screening requirements.
    - Failing to meet this deadline will mean the proposal will not be considered for funding.
    - Members can apply for funding through the member portal, under Funding Programs. The portal will be open to receive project registrations by June 25th, 2025.

2. Financial Due Diligence Deadline – Projects must successfully demonstrate their financial commitment to the project for its entire duration, layered on top of regular business operations.
    - Financial Due Diligence Deadline is September 18th, 2025
    - Factors which will be evaluated include but are not limited to: Profitability, Liquidity, Leverage/Indebtedness, and Cashflow.
    - Companies failing NGen's FDD evaluation will be notified as soon as possible, which could impact the ability of the project and project consortium to move forward.

3. Final Application Deadline - Projects that have been successfully screened will have to submit their final application before September 23rd 2025 at 5 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.

Failing to meet the Screening and Final Application deadlines will mean the proposal will not be considered for funding.

Projects that are recommended for funding will proceed to the Contracting phase. Projects are expected to complete Contracting by Dec 19th, 2025, and officially launch by April 1st, 2026.

It is recommended that project teams review the Collaboration Agreement, and the Master Project Agreement templates on the NGen website before applying. All projects are expected to be completed by no later than January 31st, 2028.

Summary of Key Dates

Application Portal Opens	June 25th, 2025
Challenge Info Webinar (FR and EN)	July 8th, 2025
Writing a winning application (FR)	Aug 5th, 2025
Writing a winning application (EN)	Aug 7th, 2025
Project Intake Deadline	**August 20th, 2025 (5 pm EST)**
FDD Evaluation Deadline	**September 18th, 2025 (5 pm EST)**
Final Application Deadline	**September 23rd, 2025 (5 pm EST)**
Contracting Phase	Mid-October 2025 – December 2025
Estimated Project Duration	April 1st, 2026 – January 31st, 2028

Application Guidance

The application consists of:

- **Ten (10) questions**
  - There will be a maximum of 7,000 characters to answer each question directly in the portal.
  - Any information provided above 7,000 characters will not be sent out to Assessors.
  - No external links are allowed.
  - Additional information, such as reports, are not allowed to be submitted in the appendices.
  - Please include any information in the application's ten questions and cite a suitable reference if appropriate.
  - Consider utilizing graphs and charts, as they will not count toward the total word count. Tables will count towards the question word count.

- **Three (3) appendices**
  - "Appendix 1" - Project Plan (XLS, MPP, PDF) - There are no template(s) for the Project Plan; the company is expected to use the project management tools available within their company.
  - "Appendix 2" - Risk Register (XLS) - There are no template(s) for the Risk Register; the company is expected to use the project management tools available within their company.
  - "Appendix 3" - Intellectual Property Tables (DOC) - The mandatory template for the IP Tables is available here: (https://www.ngen.ca/funding/challenge/advanced-manufacturing-2025).

- **Milestone Register:**
  - Milestones are input directly into the portal.
  - Provide milestones that represent major achievements/support objective metrics.
  - The milestone register needs to align with the milestones defined in the project plan.

- **Jobs, Economic Impacts, and Academic Institution Engagements:**
  - Provide direct and indirect expected jobs created or maintained during and after the project for each partner.
  - Provide estimated revenue growth during and after the project for each partner.
  - Provide any academic institutions expected to be engaged during the project that contribute directly to the project.

- **Financial Workbooks:**
  - A project finance workbook (budget) will be input into the portal by each consortium partner outlining detailed costs such as Labour, Subcontract, Equipment, IP, etc.
  - Each partner will define the funding sought from NGen.
  - NGen resources are available for reviews and guidance as needed. Please refer to the Finance Guide for further information on cost eligibility.

Ten Assessment Questions Guidance

Project applicants must answer all ten questions that will inform the assessment process. These questions must be answered by considering all partners in the consortium, not just the lead partner, so that the impact and anticipated benefits that will accrue within the consortium are well defined. Throughout the application, provide information specific to the project and, where possible, quantify and provide evidence for the statements.

The response guidance below each question guides the project consortium on how to best respond to the questions. Please respond to all relevant guidance and add additional points of relevance to the response to strengthen your proposal.

1. What is the overall opportunity that the project addresses?

Response Guidance

- Outline the big-picture motivation and the overall advanced manufacturing objectives that the project intends to achieve.
  - This question response provides the high-level introduction to the overall project and key project elements.

- Provide an overview of the project considering both technology and business impacts, highlight other strategic benefits.
- Outline what the project team needs to do to successfully achieve the project objectives within the desired timeframe and budget. What are the specific challenges, research questions, and/or technical complexities that need to be addressed within the timeframe of the project?
- Describe the nature of the challenges facing you and/or your 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 towards achieving the overall opportunity the project addresses.

2. What is transformative about the project?

Response Guidance

- This question response is where the consortium can plainly demonstrate the *transformative* nature of the project idea.
- Clearly define the transformative advanced manufacturing aspects of the project and what new knowledge pertaining to advanced manufacturing is being created by each partner organization.
- Identify the extent to which the project is transformative and innovative both technically and commercially for each partner:
    - Outline the current state-of-the-art manufacturing processes and technologies for your industry (or sector) and describe how this project pushes the boundaries in the context of advanced manufacturing.
    - How 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 advanced manufacturing technologies?
    - Describe how the project will be recognized globally as conferring or strengthening Canadian leadership in advanced manufacturing.
    - Highlight the Technology Readiness Level (TRL) and/or Manufacturing Readiness Level (MRL) roadmap from the beginning of the project as applicable per partner.
- Explain how the project has the potential to transform or support the transformation of each partner organization.
    - Outline the Background IP expected to be leveraged during the project as well as the Foreground IP expected to arise during the project, and discuss how you intend to leverage this IP. Build this narrative by using and referring to the IP Tables (Appendix 3). Note that IP is not limited to patents; other IP types such as trade secrets, know-how, copyright, registered industrial designs, trademarks, etc., may be relevant. Refer to the IP Guide for definitions.

- Provide evidence for all statements above. This could include the results of patent searches, competitor analyses, literature surveys, and/or benchmarking strategic analysis/roadmaps.

3. What is the nature and size of the potential market the project will address?

Response Guidance

- For each project partner, describe the market(s) that you are entering as a result of this project OR describe the existing market that you are operating within and how the project outcomes will enhance your competitive position within the market. Include details such as:
    - 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 your project outcomes
    - Identify and analyze adjacent markets where the new knowledge could be commercialized
    - The specific target product, platform and service applications underpinning the market
    - The expected share of market to be captured because of this project
    - The opportunity timeline and when you expect benefits to be realized
    - The impact of the project on existing or future customer relationships
- Provide evidence for your statements about the market opportunities your project opens.

4. How will the results of the project be commercialized?

Response Guidance

- This question response is where applicants can demonstrate the *applied* nature of their project proposal.
- Ensure there is a compelling commercialization plan describing how this project proposal's benefits will be achieved. The commercialization plan should highlight the new business opportunities anticipated by each partner in collaboration and individually.
    - Describe what project outputs will be commercialized, such as new or improved products, services, processes, capabilities, intellectual property, or applications.
    - Describe the potential to commercialize these outputs in the existing market, future markets, or adjacent markets as defined in Question 3.
- Describe how each of these outputs will be achieved along with a measurable timeline and key performance indicators (KPIs) for commercialization. Consider including:
    - A roadmap showing the route to market.
    - The number of manufacturers or facilities the technology will be implemented in.
    - Highlight your competitive advantage and value proposition.

- Describe the plan for the management and commercialization of Intellectual Property, inclusive of licensing, whether explicit (e.g., in written contracts) or implied (e.g., by way of sales). Recall that IP is not limited to patents; other IP types such as trade secrets, know-how, copyright, registered industrial designs, trademarks, etc., may be relevant. Refer to the IP Guide for definitions.
    - Use the IP Tables to indicate the parties (including any third parties) expected to develop, own, and/or access each of the listed Project IP assets.
    - Outline the strategy for protecting such IP assets. Include details regarding any contemplated patent application filings.
- Outline any other commercial spill-over opportunities and highlight how your activities will contribute to the wider industry and other sectors.

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. As part of this response, identify the economic benefits the project will have for the participating project partners and other suppliers/partners inside and outside the project. How does the partnership help each partner achieve greater economic growth?
- The economic case can be strengthened by representing additional direct and indirect economic benefits. Examples include:
    - The potential economic opportunity to implement the solutions in multiple manufacturers/facilities.
    - The economic value associated with:
        - Efficiency gains
        - Reduced downtime
        - Reduced manufacturing footprint
        - Positive environmental benefits
        - Reduced material usage
        - Higher quality output
        - Reduced scrap and warranty.
- Ensure that the tables in the application portal show the job impact for each project partner 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.
- Aligned with the jobs tables populated, in the question response, highlight the types and roles of jobs that the partners will create.
- Ensure that the tables in the application portal show the expected additional revenue that will be generated for each partner as a result of the project: during the project, 0-2 years after the project and 3-5 years after the project.

- Aligned with the revenue tables populated, in the question response, indicate any commercial opportunities for other manufacturers/industry sectors arising from the application of the technology, or for the existing 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 and globally.

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

Response Guidance

- This question response is where the applicants can demonstrate the *enduring* benefits of the proposed project.
- Projects must provide enduring ecosystem benefits. Benefits cannot accrue to one partner; the project must leave a legacy beyond the partners for Canadian manufacturing.
- Highlight any intent to make IP accessible (whether commercially or free of charge) by third parties such as other NGen members.
- It is also important to highlight any workforce development and Equity, Diversity & Inclusion (EDI) opportunities practiced by the partners.
- Describe how the project will help promote Canadian capabilities and create a widespread positive impact leaving a legacy in manufacturing in Canada for the partners and beyond (consider how the project impacts the supply chain, and the industry sector both domestically and internationally). To highlight this, consider the following:

- Workforce Development, for example:
    - How will the project encourage the engagement of women, indigenous, and underrepresented groups in the workforce and enhance or create equity, diversity, and inclusion (EDI) efforts?
    - Outline the opportunities for attracting, training, and developing a highly skilled talent pool (both existing and new staff).
    - Outline any initiatives to engage students in the project.
- Other Social Benefits, for example:
    - Social inclusion/exclusion
    - Enhanced quality of life
    - Public empowerment
    - Health and safety
- Industry knowledge, for example:
    - Will the project serve as a model, learning platform, or data lake for others? For example, providing tours or use cases on best practices or data access.

    - Will the project generate any intellectual property that others can use to accelerate technology applications or scale-up manufacturing in Canada?
    - Will the project influence the activities of colleges, universities, research institutes, or public services, resulting in the diffusion of this knowledge back into the industry?
- Infrastructure support, for example:
    - Will the project help to develop or support the use of tools, testbeds, data, and technology platforms that will foster future technology development, adoption, scale-up, and commercialization activity in Canadian manufacturing?
- Collaborative Networks, for example:
    - 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?
    - Will the project provide greater capacity, opportunities, and capabilities to support Small and Medium Enterprises?
- Environmental Benefits - Outline the environmental improvements and impacts as an outcome of this project, for example:
    - GHG, Particulate Matter reduction
    - Process and Resource Efficiency
    - Better Energy Management
    - Reduced Volatile Organic Compounds
    - Reduced Land degradation
    - Reduced Water usage
    - Footprint Reduction
    - Reduced emissions due to more efficient and optimized transportation and distribution within the supply chain
    - Use or Creation of Sustainable Materials
    - Reuse, Recycle, and remanufacture
    - Other Life cycle benefits
    - Other sustainability opportunities
- Describe any other benefits that might be achieved because of this project. (Regulatory, certification, standards development, regional and policy benefits, etc.).

7. What is the overall project plan?

Response Guidance

- As part of Appendix 1 provide a detailed project plan consisting of a Gantt chart that details the Work Packages, tasks, timelines, milestones, deliverables, dependencies, and resource allocation for all partners, and work package costs.

- As part of this question response, 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.
- 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?

Response Guidance

- NGen recognizes that projects of this type are inherently risky and therefore have adequate arrangements for managing this risk.
- As part of this question response, 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 upon as part of the answer to this question. For example, the scope and results of any freedom-to-operate assessments should ideally be discussed.
- As part of Appendix 2, provide a comprehensive risk analysis as part of the Risk Register.
    - 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 details and reassessment of the likelihood and impact of each risk.
    - Include at least the following risks categories:
        - Technical,
        - Commercial,
        - Managerial,
        - Resource

        - Financial,
        - Legal, inclusive of IP-related risks such as freedom-to-operate.
    - All relevant risks should be identified. Additional risks categories could include and are not limited to:
        - Safety,
        - Regulatory,
        - Environmental,
        - Supply chain risks.
- The assessment and scoring for this question will consider both the written answer and Appendix 2.
- 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

- This question response is where the applicants can demonstrate the *collaborative* nature of the project idea.
- 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 and referring to 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 technology 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?
    - Is the budget realistic and reasonable for the scale and complexity of the project?

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 and described in this section. Refer to the Finance Guide for clarifications on project cost eligibility.
- Using the portal 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:
    - **Labour**:
        - Justification for the use of labour 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. Provide context on high value adding subcontractors such as academia or NRC.

    - **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 manufacturing technologies and processes 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 $1M.
    - **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 and novel/transformational aspects. It should be linked to proving the advanced manufacturing technologies and processes 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 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.

Artifacts Required for Assessment

Compliant projects that have provided the following information will be sent for assessment. If documents or information is missing, NGen will not assess the project.

- Signed Application Agreement template – template available online.
- Answers to all ten application questions
- Appendix 1 - Project Management Plan
- Appendix 2 - Risk Register
- Appendix 3 - Intellectual Property Tables
- Completed Financial Workbooks for all partners – completed in the portal
- Milestone Register – completed in the portal
- Jobs/Economic/Academic Impacts and Engagements – completed in the portal

Upon Agreement

Upon the final recommendation of the independent assessment panel, NGen will enter into the Contracting phase with the selected project consortia. During Contracting, the project execution and governing documents, such as Project Plan, Risk Register, and IP Tables may require refinements considering Assessor feedback. Additional artifacts such as a project Financial Forecast will be explained and created.

A Collaboration Agreement will also need to be put in place among the project consortium, notably to define the roles of the project partners and risk management provisions. This Agreement must also set out frameworks for the ownership of the Foreground IP to arise during the project and for the access thereto. NGen can provide further guidance on the Collaboration Agreement upon request.

In addition, the project partners will be required to produce, with support from NGen's IP Team, an IP Plan to contextualize and govern how the IP related to the project will be managed.

NGen will conclude Contracting with an executed Master Project Agreement (MPA) between NGen and the consortium, detailing project requirements, reporting, and NGen's compliance obligations.

Templates and Supporting Material

For all latest guides, resources, and templates, please refer to the challenge homepage and if there are any questions, please reach out to NGen at AMTP@ngen.ca.

https://www.ngen.ca/funding/challenge/advanced-manufacturing-2025