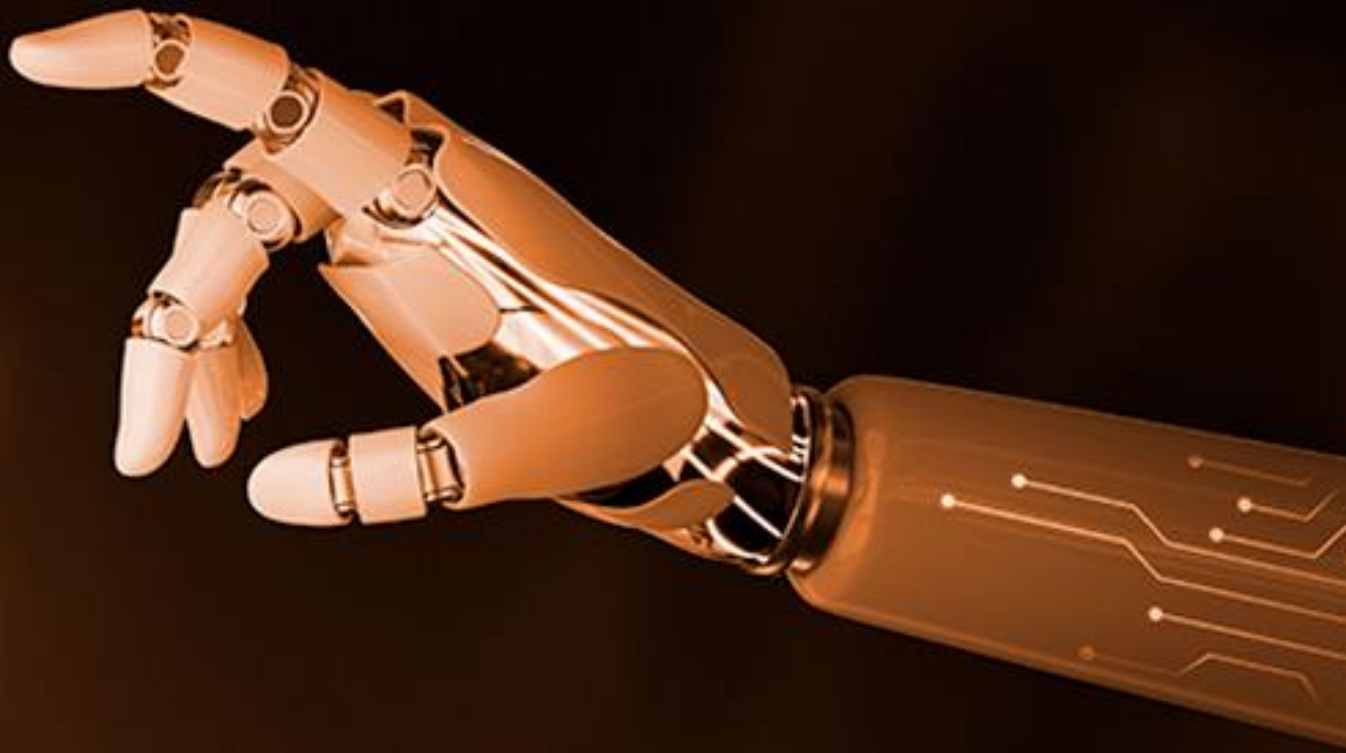


Project Application Guide  
AI for Manufacturing (AI4M) Call for Projects



## **CONTENTS**

### **Overview**

### **The Challenge Goals**

### **Who is Eligible to Apply?**

### **Project Eligibility Criteria (Scope)**

Project areas

Project Requirements

### **Funding**

### **NGen Admin fee**

### **Challenge Timeline**

### **Applying for project funding**

NGen Support for Project Applications

Partner Collaboration Portal

Project Screening

Financial Due Diligence

Application Approval Process

Independent Expert Panels

Acceptance or Rejection

Feedback

### **Assessment questions**

### **Documents required for assessment**

### **Upon Agreement**

### **Templates guides and reference documents**

# NGen AI for Manufacturing (AI4M) CALL FOR PROPOSALS

## Overview

Canadian manufacturing and technology sectors have an opportunity to capitalize on the power of Artificial Intelligence (AI) to improve the design, processes, and supply chains to make Canadian manufacturing more efficient and cutting-edge. Canadian manufacturers can realize real-time, bottom-line benefits by widespread innovation through Artificial Intelligence applications.

With the advances in computing power, storage, communication technology, data analytic tools, and the knowledge base, AI solutions have become financially attractive solutions for many manufacturing processing challenges. At the same time, manufacturers are moving towards reshoring production and facing increasing customer expectations for product cost, quality, flexibility, and transparency in production. AI tools and models have the capability to transform industries by addressing these problems in many ways. They also offer manufacturers opportunities to develop new sources of revenue from data-driven analytics services.

## The Challenge Goals:

NGen's AI4M program is funded through the Government of Canada's Pan Canadian Artificial Intelligence Strategy (PCAIS).

In this challenge, NGen is targeting a co-investment with industry of up to \$50 million to build advanced manufacturing capability in Canada by integrating AI and ML innovation in our manufacturing sectors.

NGen is looking to invest in projects that:

- Are focussed on commercialization, business-led and collaborative. The projects should promote the introduction, development, and scale-up of solutions involving Artificial Intelligence as well as the activities required by manufacturers for successful implementation.
- Aim to enhance the efficiency, agility, and competitiveness of Canadian manufacturers, thus enabling the development of new commercial opportunities for AI solution providers and manufacturers alike.
- Create jobs for a diverse and inclusive workforce skilled in AI applications in manufacturing, and contribute to environmental sustainability, supply chain resilience, and the health and safety of Canadians.

## Who is Eligible to Apply?

Any organizational member of NGen may apply for project funding or apply to be considered as a partner or co-investor in projects. Register for free as a NGen member at <https://www.ngen.ca/join>

Funding recipients must be incorporated in Canada and be for-profit organizations, not-for-profit organizations that facilitate and fund research and development and whose funding is primarily received from private sector organizations, and non-federal crown corporations whose funding is derived from commercial activities.

International organizations (offshore companies and research organizations without an incorporated presence in Canada) may also participate in the projects, but any project activity undertaken by these organizations will not be eligible for funding.

## **Project Eligibility Criteria (Scope):**

### **Project Areas**

The AI4M call for projects will support AI-enabled advanced manufacturing technology development and commercialization in areas such as:

- Systems optimization within manufacturing facilities or across supply chains. e.g.,
  - Automating and optimizing machines and processes
  - Predictive Maintenance
  - Automating Quality Prediction and Control
  - Energy and emissions optimization
  - Demand-driven production
  - Digitization of supply chains for traceability and evidence of Environmental, Social, and Governance (ESG) compliance
  - Productivity optimization, including increasing Overall Equipment Effectiveness (OEE)
- The development of new advanced manufacturing capabilities, for example, new robotic or automation equipment.
- Rapid prototyping and testing of materials, products, and processes. E.g., design for manufacturing processes for new products, including adding new or sustainable materials into the production or optimizing material use and reducing waste.
- Enhanced cybersecurity at the manufacturing process or facility level.
- Development of other disruptive AI-enabled manufacturing capabilities and services.

### **Project Requirements**

The projects must be transformative, applied, enduring, and collaborative and meet the scope criteria below:

- **Transformative** – should impact manufacturing performance and have the potential to confer a significant global competitive advantage to the Canadian industry.
- **Applied** – should have significant potential for widespread commercialization.
- **Enduring** – should provide broader benefits to Canada's advanced manufacturing ecosystem by helping promote Canadian AI capabilities in manufacturing, sharing industry knowledge, providing

general education, training, and EDI opportunities, and/or enabling access to applied research, testing, and demonstration capabilities.

- **Collaborative** – project should demonstrate meaningful collaboration between partners, developing industry relationships, building trust and sharing in knowledge, risk, investment and the resulting benefits. Projects should involve the participation of multiple industry partners, especially small and medium-sized enterprises (SMEs).

All projects must demonstrate the development or application of AI solutions in support of Canadian manufacturers.

Projects must be focused on commercializing AI solutions, business-led and collaborative.

Projects must be in addition to the regular business undertakings of the applicants.

Projects are encouraged to support commercialization across a broad number of manufacturers or manufacturing facilities rather than providing company or facility-specific solutions.

Project partners are expected to have in place a cyber security strategy with protocols for managing, protecting, and sharing data.

Projects must have the potential to deliver significant commercial benefits and jobs among project partners and beyond.

Projects must include at least one manufacturing company and one AI solution provider.

Projects must include at least one SME (Small, Medium Enterprise) partner (applicants are encouraged to include more SME partners and academic and research partners). An SME is defined as an organization that has less than 500 employees globally.

Projects are expected to create jobs for a diverse and inclusive workforce skilled in AI applications in manufacturing and contribute to environmental sustainability, supply chain resilience, and the health and safety of Canadians.

Projects out of scope are:

- Projects related to experimental or theoretical work without any direct commercial application or use. Projects must demonstrate a strong commercialization strategy.
- Production activities themselves or activities that subsidize full-scale production.
- Capital investment for purposes not related to the project. Capital investment must demonstrate new AI-enabled manufacturing capabilities for the organization.
- Activities that could be viewed as anti-competitive.
- Projects where benefits accrue to a single firm or organization.
- Projects that would be undertaken at the same scale or scope and within the same timeframe without NGen funding.
- 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.

If in doubt about the project scope and eligibility of a project idea, the NGen project team is available to provide support throughout the application process at [ai@ngen.ca](mailto:ai@ngen.ca)

Projects must also meet the Government of Canada's requirements for the following conditions by assuring that:

- The Project is not a "designated project" or a "project" under the Impact Assessment Act (S.C. 2019, c. 28, and the Applicants will ensure that the Project does not become a "designated project" under the Impact Assessment Act
- The Applicant is in compliance with Sanctions; and neither the Applicant nor any of its officers or directors is a Designated Person; and the Applicant will conduct its business at all times in compliance with Sanctions. "Sanctions" means economic or financial sanctions or trade embargoes imposed, administered or enforced from time to time by the Government of Canada (under the Special Economic Measures Act (S.C. 1992, c.17) or otherwise). "Designated Person" means a person that is (i) designed under the Special Economic Measures Act, or (ii) listed on any other Sanctions-related list maintained by the Government of Canada, or (iii) listed on any other Sanctions-related list or is a "designated person" under any applicable Canadian law

### **Funding:**

Project activities and expenses must be undertaken and incurred in Canada. Companies or organizations incorporated outside Canada are not eligible for AI4M funding but may be involved as project partners.

NGen will reimburse 35% of total eligible project costs.

Projects will have total project costs between CAD\$ 2M and CAD\$ 8M. Any minor deviations to this will require written NGen approval. The maximum project value allowed for NGen funding support is \$8 million. Projects with total costs over this amount will be accepted; however, NGen funding support will be capped at CAD \$2.8 million.

Eligible project costs are defined in the Project Finance Guide available here - [www.ngen.ca/funding/challenge/ai4m](http://www.ngen.ca/funding/challenge/ai4m)

This call for proposals will support organizations in creating new AI-enabled manufacturing capabilities. Capital expenditures of up to 45% of the total project costs will be allowed. Capital equipment expenses need to be for new advanced manufacturing equipment that creates new AI capabilities within the organization. The expenditure needs to support the project.

Any single piece of capital expenditure exceeding \$1 million CAD will require pre-approval by the Government of Canada through NGen .

The total amount of sub-contracted or consulting costs cannot exceed 40% of total project costs, and the work must be performed in Canada.

Project partners cannot also be sub-contractors for labour services or consultants within the project.

No individual partner may receive more than 80% of NGen funding.

Projects are expected to be completed and all claims for eligible, paid expenses submitted by all partners by the 31<sup>st</sup> of March 2026.

### **NGen Admin fee:**

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 3% of the total cost of the project. Payment of the fee is a non-negotiable condition of project funding. The fee enables NGen to support projects through its project monitoring and claims management process.

### **Challenge Timeline:**

A briefing video will be available on 21<sup>st</sup> of October 2022.

A collaboration event will be held on the 8<sup>th</sup> of November 2022.

Project application workshop will be held on the 17<sup>th</sup> of November 2022.

Projects must be registered on the Hockeystick portal as early as possible so that NGen can screen for fit and alignment to the scope criteria.

- The Hockeystick portal will be open to receive project registrations by the 17<sup>th</sup> of October 2022.

We are accepting two intakes of project proposals; each intake will have three application deadlines that must be met to submit a compliant proposal:

#### **First intake: 23<sup>rd</sup> of November 2022**

1. Mandatory Project Screening Deadline (Expression of Interest) on the Hockeystick portal:- 23<sup>rd</sup> November 2022, 5:00 pm ET

This is to enable NGen to ensure the project is in scope and complete the necessary financial due diligence.

Please note: Failing to meet this deadline will mean the proposal will not be considered for funding.

2. Initial application deadline for projects:- 7<sup>th</sup> December 2022, 5:00 pm ET

In this stage the applicants will complete all the application questions and include appendices and submit to NGen for feedback.

3. Final application deadline:- 19<sup>th</sup> January 2023, 5:00 pm ET

In this stage, the applicants will incorporate relevant NGen feedback and resubmit for assessment.

Applicants will be notified of results, and contracting begins:- 31<sup>st</sup> January 2023, 5:00 pm ET

#### **Second intake: 8<sup>th</sup> February 2023**

1. Mandatory registration deadline on the Hockeystick portal:- 8<sup>th</sup> February 2023, 5:00 pm ET

This is to enable NGen to ensure the project is in scope and complete the necessary financial due diligence.

Please note: Failing to meet this deadline will mean the proposal will not be considered for funding.

2. Initial application deadline for projects:- 28<sup>th</sup> February 2023, 5:00 pm ET

In this stage the applicants will complete all the application questions and include appendices and submit to NGen for feedback.

3. Final application deadline:- 28<sup>th</sup> March 2023, 5:00 pm ET

In this stage, the applicants will incorporate relevant NGen feedback and resubmit for assessment.

Applicants will be notified of results, and contracting begins:- 18<sup>th</sup> April 2023, 5:00 pm EDT

It is recommended that project teams review the Collaboration Agreement and the Master Project Agreement drafts on the NGen website before applying.

### **Applying for Project Funding:**

A dedicated portal for applications can be accessed by NGen Member organizations on the 17<sup>th</sup> of October 2022. The portal is required to enter the project information.

To apply for funding, start by joining NGen as a member: [www.ngen.ca/join](http://www.ngen.ca/join)

Then apply for funding within the NGen portal <https://portal.ngenconnects.ca/>

It is recommended that the project be registered early on the NGen Grant Management portal (*Hockeystick*) so that NGen can review and support the project through the screening process. This is to ensure that the project is eligible for funding before completing the full application.

### **NGen Support for Project Applications**

NGen's project team are available to assist in the development of project applications prior to their assessment. NGen staff may assist by:

- Providing high-level advice and guidance with respect to scope criteria, funding rules, eligible activities, and project requirements, and draft responses to the eight questions.
- Identifying potential project partners.
- Identifying other sources of funding for project activities.

Resources are limited, and the support will be provided on a first-come, first-serve basis. Support can be requested by email at [ai@ngen.ca](mailto:ai@ngen.ca)

Emailing confidential or sensitive documents is not recommended. NGen can support the review of project information through the secure portal with Hockeystick or via a SharePoint secured folder.



## **Partner Collaboration Portal**

NGen has set-up a collaboration portal that will support projects in finding partners.

Companies can post information related to the project and the types of partners they are looking for.

The portal can be accessed through the Challenge main page: [www.ngen.ca/ai4m-collaboration-portal](http://www.ngen.ca/ai4m-collaboration-portal)

## **Project Screening**

NGen will screen all proposals to ensure they meet basic eligibility requirements for projects.

Applicants will be asked to:

- Complete an Application Agreement – [www.ngen.ca/funding/challenge/ai4m](http://www.ngen.ca/funding/challenge/ai4m)
- Certify that 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 AI and advanced manufacturing capabilities in Canada.
- Indicate that their project is collaborative and identify the lead private sector partners.
- Certify that private sector partners looking for funding are incorporated in Canada and that the project will be carried out in Canada.
- Certify that the project team has or will develop cyber security plans.
- Certify that their project would not be undertaken in the same form without 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.
- 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**

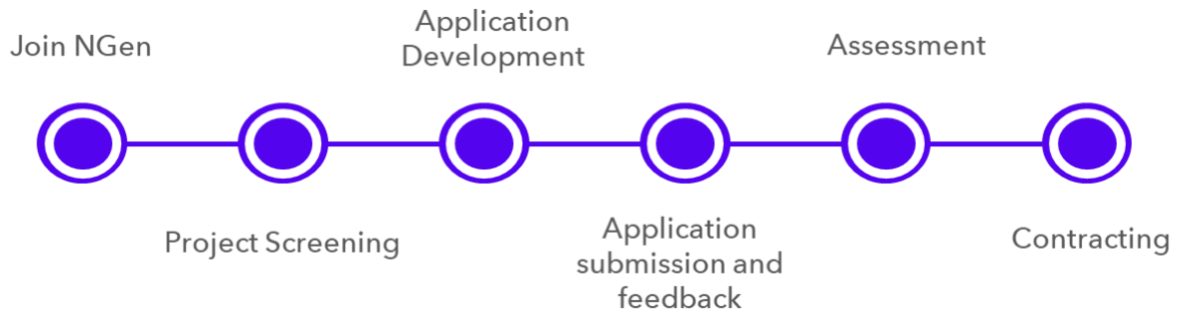
NGen will undertake a financial assessment of each participating project partner to ensure they will be able to support their commitment to the project for its entire duration.

Factors that will be evaluated include but are not limited to Profitability, Liquidity, Leverage/ Indebtedness, and Cashflow.

If supporting financial information provided by the applicants is insufficient to demonstrate their ability to complete the planned project as proposed, NGen Canada will:

- Request additional information from the participating member.
- Reject the proposed program because the project team does not appear to have the ability to fund the proposed project to completion, or
- Approve the project for a reduced amount of NGen funding until such time the participating members can provide further assurances on liquidity.

## The Application Approval Process



Applicants who meet eligibility requirements as part of Project screening will be invited to apply.

The application consists of:

Answers to eight Questions - maximum 900-words per question.

To ensure that the level of information provided is fair for all applicants:

- Any information provided above 900 words will not be sent out to the 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 eight questions and cite a suitable reference if appropriate.
- Consider utilizing graphs and charts, as they will not count toward the total word count. Text-heavy tables will count towards the question word count.

The questions can be answered within the portal or by providing answers on this application questions template and uploaded in the section for eight questions.

Four (4) appendices

1. Intellectual Property Plan (DOC, PDF)
2. Project Plan (DOC, XLS, MSP, PDF)
3. Risk Register (DOC, XLS)
4. Financial Workbooks – one for each partner

Templates for the Project IP Plan, Financial Workbook, and Application Agreement are available <https://www.ngen.ca/funding/challenge/ai4m>.

There are no templates for the Project Plan or Risk Register; the company is expected to use the project management tools available within their company.

Each project application will be assessed based on eight questions by up to 5 independent assessors.

Responses are equally weighted in assessments.

Applications will be scored out of 80 marks (10 marks per question) by independent experts.

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**

All project proposals will be subject to an independent assessment process undertaken by up to five external experts. The expert assessment panels will ensure that approved 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 aims to fund the highest quality projects based on an independent assessment of industry experts.

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** Following an Assessment and Recommendation from the Independent assessors, NGen staff will advise all applicants directly if their project has been successful 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.

## **Assessment questions:**

To satisfy these requirements, project applicants must answer eight questions that will inform the assessment process.

To the best of your ability, please address the guidance provided for each question.

Please include any other pertinent information not covered in this guidance.

This guidance is to be answered by all applicants, 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 team on how to respond to the questions. Please respond to all relevant guidance and add additional points of relevance to the question to strengthen your proposal.

**1. What is the overall project opportunity, and what are the transformative impacts?**

*Response guidance:*

- Outline the big-picture motivation and describe how this project enables the commercialization of AI solution(s) and promotes smart manufacturing in Canada.
- Describe the type of project (please see section Project Eligibility Criteria (Scope): Project areas) that is being proposed.
- Describe in detail the AI solution being deployed and what it is intended to do.  
Consider:
  - Defining the specific AI solution, types of algorithms, data sources and any unique capabilities.
  - Outlining where and how the solution is being implemented.
  - The current stage of development.
  - If the solutions are new or existing with new applications.
- Identify the extent to which the project is transformative from both a technical and business (e.g., business models, processes, and practices) perspective. Explain how the project has the potential to transform or support the transformation of each partner organization.

**2. 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 the manufacturers and the AI solution providers.

- Identify the economic benefits the project will have for participating project partners and other suppliers/partners inside and outside the project.  
Consider:
  - The impact over the short (1-3 years), medium (4-7 years) long-term (8-10 years).
  - If there multiple manufacturers/facilities that could benefit from implementing the AI solutions?

Include tables showing the expected additional revenue that will be generated for each partner over short (1-3 years), medium (4-7 years), and long-term (8-10 years).

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
- 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.

Include a table showing the job impact for each project partner (and if appropriate for suppliers) over short (1-3 years), medium (4-7 years), and long-term (8-10 years).

- Please identify:
  - the number of direct jobs created, and
  - the number of direct jobs safeguarded,
  - the number of indirect jobs created within the supply chain (consider referencing multiplier effects based on direct jobs),
  - the number of indirect jobs safeguarded.
- Highlight the type of jobs that the partners will create.
- Indicate any commercial opportunities for other manufacturers/industry sectors arising from the application of the AI solutions and use cases involved in the project.
- Will the project create spin-off business opportunities (new businesses, new or expanded supplier or partner relationships) in Canada?

### **3. How will the project benefit Canada beyond the partners involved?**

*Response guidance:*

Projects must provide enduring ecosystem benefits. It is important to highlight any workforce development and Equity, Diversity & Inclusion (EDI) opportunities practiced by the partners.

- Describe how the project will help promote Canadian AI capabilities and create a widespread positive impact leaving a legacy in manufacturing in Canada for the partners and beyond (consider how the project impacts beyond the partners, throughout the supply chain, 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 to support advanced manufacturing and AI education, 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.).

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

*Response guidance:*

Please ensure there is a compelling commercialization plan describing how this 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 will be commercialized, such as new or improved:
    - Products,
    - Services,
    - Processes,
    - Capabilities and
    - Applications
  - The potential to commercialize the outcomes in the existing market, future or adjacent markets should be considered.
    - Describe the market(s) for the AI solution(s) adopted in this project. Consider including:
      - the target market,
      - the market size,
      - potential margins,
      - market leaders,
      - key competitors,
      - price competition,
      - barriers to entry.
  - Provide a description of how each of these outputs will be achieved along with a timeline for commercialization. Consider:
    - A roadmap showing the route to market.
    - The number of manufacturers or facilities the AI solution will be implemented in.
    - Highlight your competitive advantage and value proposition.
    - Include insights into the sales and marketing plan aligned with the direct and indirect economic benefits.
    - The plan for managing Intellectual Property (appendix 1). (Please note: IP is not just patents and includes trade secrets, know-how, copyrights, industrial design, etc).

- Outline the plan for protecting and sharing IP among your consortium partners and, if appropriate, beyond this with other NGen members.
  - Include a patent filing plan for domestic and foreign jurisdictions.
  - Describe opportunities to commercialize the Intellectual Property, including the license to manufacture, licensing of IP, manufacturing, or direct sales in your IP Plan.
- Outline any other commercial spill-over opportunities and highlight how your activities will contribute to the wider industry and other sectors.

### **5. What is the overall project plan?**

*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 2 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.

The assessment and scoring for this question will consider both the written answer and appendix 2. 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 key milestones realistic?
- Is there a demonstration of sufficient resource commitment and capability to undertake the project?

### **6. What is the overall risk management plan?**

*Response guidance:*

NGen recognizes that projects of this type are inherently risky and therefore seeks assurance that the projects it funds 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 upon as part of the answer to this question.

Provide a comprehensive risk analysis as part of the risk register appendix 3.

- 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.
- Identify the management strategies for each risk. Strategies can include:- 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 risks categories:
  - Technical,
  - Commercial,
  - Managerial,
  - Resource
  - Financial,
  - Intellectual Property
- All relevant risks should be identified. Additional risks 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.

**7. 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 the project partners will develop relationships, build trust, and increase knowledge sharing.

- Describe any additional collaborative activities related to suppliers, sub-contractors, and academic or research organizations involved in the project.
- Consider using the IP Plan (Appendix 1) to demonstrate the nature of the collaboration in terms of the licensing and 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 partner's record of accomplishment in achieving similar projects.
- Describe the accomplishment of the project team members in undertaking and exploiting the results of AI projects to show your capability to develop, commercialize and adopt the technology.
- Demonstrate that there are appropriate management reporting and governance structures between the consortium partners to manage and deliver the project. Consider including a governance structure diagram.
- 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.).

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

*Response guidance:*

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?
- 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 2 or described in this section.

- Using the Financial workbooks (appendix 4), 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 that all key points relating to these costs are described per cost category.
  - Ensure that project funding is not subsidizing production.

Consider:

- **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.
- **Equipment:** It is essential that:
  - The equipment purchase is directly linked to the project goals. This can include pilot production, where the project team is proving out the new AI capabilities.
  - 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 \$1M CAD (Please note: these costs require the Government of Canada approval).
- **Materials:** Please explain any excessive amounts of material or the use of expensive materials. The amount of material listed should be for the project's R&D aspects and for the prove out of the AI 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.
- Please identify any potential follow-on funding from government or private sector sources.
- To further enhance the value for money case, please outline if the project has the potential to attract future private sector investment in the short, medium, and long term. Describe how the project can help attract, retain, and promote industry investment 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.

## **Documents 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 eight application questions
- Appendix 1 - Intellectual Property Plan – see IP plan guide and tables
- Appendix 2 - Project Management Plan
- Appendix 3 - Risk Register
- Appendix 4 - Financial Workbook template – one for each partner – template available online.

## **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 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 the project 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 guides and reference documents**

Available for download <https://www.ngen.ca/funding/challenge/ai4m>