

Project Scope

AI4M Project Scope

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

- **Systems optimization within manufacturing facilities and/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
 - Optimize productivity, including increasing OEE
- Development of **new advanced manufacturing capabilities**, e.g., new robotic, or automation equipment.
- **Enhanced cybersecurity** at facility/process levels.
- **Rapid prototyping and testing** of materials, products, and processes.
- The development of **other disruptive AI-enabled manufacturing capabilities and services.**

Scope Requirements

Projects must be transformative, applied, enduring, and collaborative to be in scope:

- **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).

Funding Terms

NGen targeting \$50M co-investment with industry

- Projects must be focused on commercialization, be business-led, and collaborative
- Project consortia: at least **2 industry partners**: one manufacturer, one AI provider (Must include one SME – less than 500 employees globally)
- Projects total cost between **\$2M-\$8M**
- NGen to reimburse 35% of total cost
- Any one partner cannot receive more than 80% of NGen funding
- Projects must be complete, and all eligible paid expenses should be incurred before 31st March 2026
- NGen funding is 100% stackable
- Admin fee: 3% of total project costs

AI4M Call for Proposals – 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**.

Projects out of Scope

- 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 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.

Unsure if you are in Scope?

Still unsure if you are in scope e-mail: ai@ngen.ca

Funding Stream – Key Dates

Important Dates

- Application Submission deadlines:
 - November 23, 2022 – Screening application in Hockeystick
 - December 7, 2022 – Initial Application for review by NGen
 - January 19, 2023 – Final Application Submission

How to prepare a strong application...

Tips and general principles

- Read the Project guide and finance guide in detail. <https://www.ngen.ca/funding/challenge/ai4m>
- Don't start by answering the questions. Have a partnership meeting with your collaborators and plan the project with your partners.

Win Win Win

- Think about how you achieve the NGen program goals (advanced manufacturing, scope and NGen goals), your goals as the lead and your partners' goals.
- Build relationships with your partners: build trust; get to a first name basis.
 - What are the issues you are trying to solve? Talk about them!
 - The more you put in at this stage the more you will get out
 - The project will be easier and more effective when it launches

1. Collaborate 2. Brainstorm 3. Structure the project 4. Build the Business case

- Make sure you and your partners have buy-in from your Leadership Team and that you have the right people with influence on the project team.
- Get a strong project manager or someone who can lead the proposal and drive it to a successful conclusion.
- Sketch out the project scope, common objectives, high level deliverables, overall timelines.
- Brainstorm the project benefits and opportunities together as a consortium.
- Build the business case with your partners.
 - The business case, project plan and financials need to hang together with all your project partners.

Tips and general principles

- Follow the guide to help support the development of the proposal.
 - Everyone approaches proposal development differently.
 - As a suggestion start with answering Question 1 as this will define the vision of the project and the highlight what is transformative in Artificial Intelligence in Manufacturing.
 - Want feedback at this stage on scope and fit. Contact NGen and request feedback ai@Ngen.ca
 - Don't email your proposal; use the secure portal.

Tips and general principles

- You do not have to apply all the suggestions for each question. Use the ones that are most relevant to your project. Be as comprehensive as possible.
- Consider the amount of funding being requested and the impact the project can have on leaving a legacy for AI for Manufacturing in Canada.
- Every project is unique - therefore please include any other pertinent information not covered in this guidance.
- Answer the questions.
 - **This is not an exam.** The assessors however are only able to assess what is written in the application. To the best of your ability, try to address the relevant guidance provided for each question.
 - **Work with your partners** to answer the questions and quantify all the benefits that might accrue for each partner.

Tips and general principles

- Don't lose sight of the NGen scope requirements:
 - What is the artificial intelligence technology being proposed in the application? What does it do?
 - What is Transformative with respect to Artificial Intelligence in your business?
 - What legacy is left in AI for Manufacturing for Canada?
 - Demonstrate meaningful collaboration.
- Where possible provide evidence for your statements. Do you have market analysis or survey information?
- Use credible sources. Don't quote Wikipedia.
- When putting together the case and brainstorming, think about what are the differentiating factors within your project that set it aside from all the other projects.

Tips and general principles

- Clearly articulate the answers to the questions. Assessors are looking for a straightforward case.
- Graphs, charts and tables are your friends. Use them for:
 - Process diagrams.
 - Improvement comparisons.
 - Market projections.
 - The economic case.
 - To provide a project governance or team structure.
 - Table of the number of Direct and Indirect jobs in the Short, Medium, Long-term
- Avoid quoting the guidance back to the assessors or making general unquantified statements.