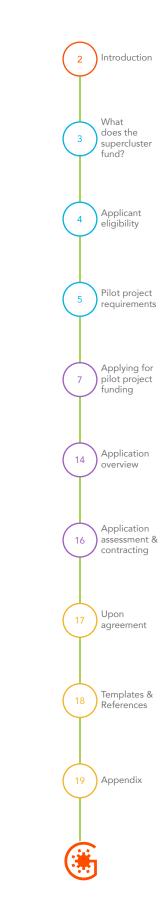


Pilot Project Application Guide

BUILDING WORLD-LEADING ADVANCED MANUFACTURING CAPABILITIES IN CANADA



INTRODUCTION

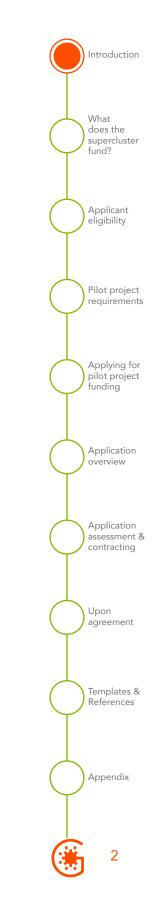


Canada's Advanced Manufacturing Supercluster is led by Next Generation Manufacturing Canada (NGen), an industry-focused, not for- profit corporation dedicated to positioning Canada as a world leader in advanced manufacturing capabilities.

The Supercluster will drive connections between technology and industrial companies to accelerate the development, adoption, and scale-up of transformative capabilities in Canadian manufacturing.

The Supercluster aims 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 more large-scale world-leading Canadian enterprises, and develop a modern and inclusive workforce with the skills to excel in advanced manufacturing.

The NGen Capacity Building activities are intended to assist Canadian SME's in derisking their implementation of advanced manufacturing technologies and to support their access to NGen project funding. Recipients of Supercluster Capacity Building funding must be for profit organizations that are classified as SME's.





What Does the Supercluster Fund Under Capacity Building?

NGen will invest \$12 million of Supercluster funding and aims to leverage an additional \$12 million of industry investments in Capacity Building projects targeted at Canadian small and medium enterprises (SMEs) before the end of March 2023. Several program streams will be available under the Capacity Building Program, including Pilot Projects.

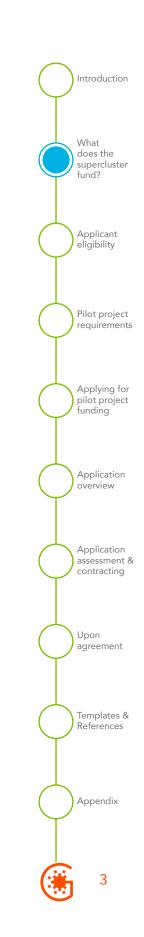
The objective of a Pilot Project is to support a group of at least two Canadian SMEs to run a collaborative Advanced Manufacturing Research, Development or Demonstration project.

Pilot project funding aims to move high-risk activities forward and quickly determine their viability and may be used as a prelude to larger funding applications under subsequent NGen or other funding. The funding may be used by a project team to develop critical detail information required in support of a subsequent project proposal, including, but not limited to, technical capability, project management capacity, market knowledge and understanding potential impact on the Canadian Advanced Manufacturing ecosystem.

Supercluster Pilot Projects must support initiatives that are:

- **Transformative**, involving the development of technological or business capabilities with the potential to confer a significant improvement in the competitiveness of the involved organizations;
- **Applied**, supporting the continued development of technological and manufacturing capabilities that offer the potential to generate significant long-term commercial and economic benefits, including jobs maintained and created for the involved organizations;
- **Collaborative**, attracting the participation of industry partners, in support of SMEs and new partnerships between SMEs to grow Canada's advanced manufacturing economy.
- **Enduring**, leaving a legacy in skills development, tools, testbeds, intellectual property or business knowledge for the involved organizations.

The activities supported by NGen Accelerator Pilot Project funding include technical capability, project management capacity, market knowledge and understanding potential impact on the Canadian Advanced Manufacturing ecosystem.



Applicant Eligibility

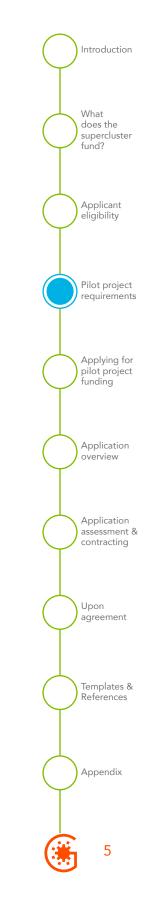
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- Any Small or Medium sized company (SME; defined as a company with fewer than 500 full-time employees) who is a member of the Advanced Manufacturing Supercluster may submit an application for project funding under the Capacity Building stream.
- Recipients of Supercluster funding must be incorporated in Canada.
- International organizations (offshore companies and research organizations without an incorporated presence in Canada) may participate as partners in NGen Pilot Projects, but any project activity undertaken by these organizations will not be eligible for Supercluster funding.
- Publicly funded not-for-profit organizations, post-secondary institutions, federal Crown corporations, and government departments or agencies are not eligible to receive Supercluster funding directly, although they may bring their own contributions to projects or be sub-contracted by funded recipients to carry out project activities.





Pilot Project Requirements

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- All Pilot Project applications must include at least two partnering SMEs conducting the work in Canada.
- The total project value should be between \$100,000 and \$500,000.
- The project must be completed within nine months of initiation.
- All projects must involve Advanced Manufacturing, and include one or more of:
 - » IP Commercialization strategy development
 - » Business case development
 - » Technical program development
 - » Risk mitigation planning
 - » Technology development
 - » Manufacturing process development
 - » Manufacturing process scale up from bench-scale toward full-scale
 - » Others please contact us if you have other challenges for which NGen Pilot Project funding would be beneficial at capacity@ngen.ca
- It is encouraged that companies use Pilot Project funding to de-risk their advanced manufacturing strategies, business planning and technology development activities in support of securing subsequent NGen project funding. Commitment to follow-on work is not a requirement for funding of a Pilot Project.
- Partner companies should all have meaningful contributions to the project, demonstrating collaborative engagement, shared risk, and potential for shared reward. NGen contributions will not exceed half the project value.
- Participation of academic institutions for research activities that align with the NGen Pilot Project activities can be supported through a subcontract to the academic institution. These contributions can be leveraged through separate government funding programs such as Mitacs Inc., Ontario Centres of Excellence and/or NSERC. Academic institutions are not eligible to receive NGen funding directly.
- Participating companies will be required to pay a one-time, non-refundable project administration fee to NGen equal to 2.5% of the total cost of the project at the time of project launch. This fee can be paid by one partner or divided between partners.

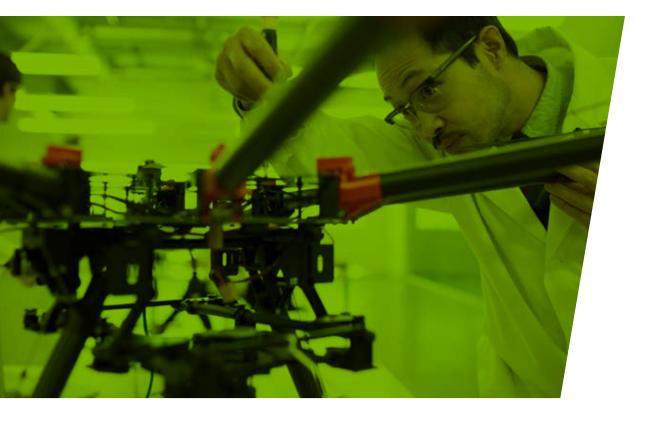


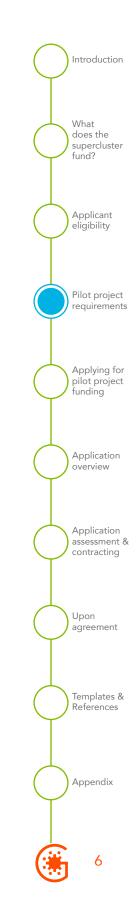
[Pilot Project Requirements]



PROJECT ACTIVITIES THAT ARE OUT OF SCOPE AND WILL NOT BE FUNDED

- Those related to theoretical work without any direct commercial application or use
- Projects that develop products that are not used for Advanced Manufacturing
- Production activities themselves or activities that subsidize full scale production
- Capital investment for production or for purposes not related to the research being conducted
- Activities 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 Supercluster 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







GETTING STARTED

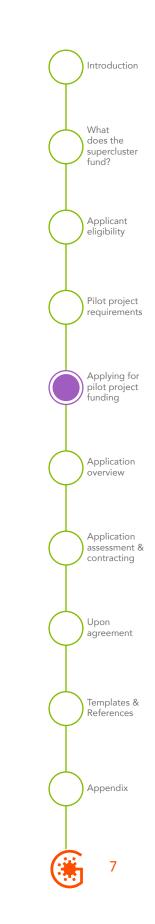
If you have an idea you believe is suitable for NGen Pilot Project funding, please get in touch!

- 1) Register as a member of NGen www.ngen.ca/join
- 2) From the members portal you can complete the project screening template.

PROJECT SCREENING

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

- Certify that they have read, understand, and are willing to comply with NGen's project requirements.
- Describe the purpose of their project.
- Indicate that their project is collaborative and identify 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 their project would not be undertaken in the same form without Supercluster funding
- Provide an estimate of project costs and indicate that they are willing to invest in the project within the timelines of NGen's Supercluster funding horizon.
- Certify that they have adequate financial means and project management capabilities to carry out the project .

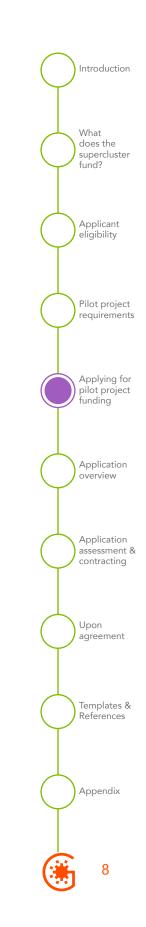




GENERAL RULES

To receive Supercluster funding, project applicants must meet NGen's evaluation criteria and be approved by NGen's independent project selection process. Approved projects will be reimbursed for that portion of their project expenses that are reasonable and eligible under the federal government's conditions for Supercluster funding.

- All recipients of Supercluster funding will be required to enter into a contractual agreement with NGen defining the terms and conditions by which funding will be provided, and be required to comply with the terms of the funding agreement.
- All recipients of NGen Capacity Building funding must be Canadian-based SME's. SME's are organizations with fewer than 500 employees.
- Projects may receive complementary funding from other government agencies. Supercluster funds cannot be used to reimburse costs already covered by funding from other government sources.
- The total amount of government funding cannot exceed 100% of eligible project costs.
- Claims will be made on a reimbursement basis following submission of a claim form, copies of invoices >\$500 and other documentation as required to support the amounts claimed.
- Once the claim and the supporting documentation has been received by NGen, it will normally be paid within 45 days, unless it is necessary for NGen to seek further information to support the claim.
- Claims are to be submitted to NGen every three months.
- Pilot Projects will be reimbursed to a maximum of 50% of total eligible project costs.
- Projects in which one participating partner receives in excess of 70% of NGen funding requires pre-approval by NGen Canada. (There may be other reimbursement from provincial or other sources.).
- NGen is under no obligation to pay more than 85% of the funding to the Recipients until it has received and approved all outstanding claims with supporting information, and the project reporting and monitoring obligations as set out in the Master Project Agreement have been met. Supercluster funding is subject to availability of funds being approved annually by Parliament.





WHAT KINDS OF COSTS QUALIFY AS ELIGIBLE COSTS?

Eligible costs must be reasonable, incremental and relate directly to the eligible activities of the project. If in doubt about the eligibility of a cost, please contact NGen for clarification that will protect you from spending on activities that may later be deemed ineligible.

All amounts submitted for reimbursement must be net of any applicable HST/GST/PST.

Only costs that are incurred and paid in cash are eligible for reimbursement. In-kind contributions are goods and services that are provided/donated to the project at no cost and are not eligible for reimbursement.

SALARIES & WAGES

Eligible costs are those incurred as the portion of gross wages or salaries for personnel working directly on the project.

This includes CPP, EI and EHT but must exclude any discretionary benefits (i.e. health & dental, retirement) or bonuses.

All salaries & wages are considered paid in cash and are not in-kind costs.

(The costs of routine administration and operations, including the costs of administering project activities, are ineligible.)

Examples of the distinction:

Employees dedicated to the project, including project managers and project controllers - Eligible

Senior leadership from participating organizations who provide oversight - Ineligible

A general concept of reasonableness shall apply to salaries claimed. Labour costs should reflect project activities being performed.

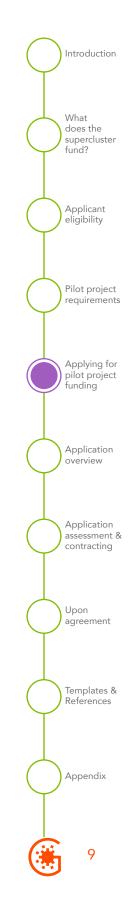
SUB-CONTRACTS AND CONSULTANCY FEES

Costs are covered for any work essential to the success of the project and where the expertise does not exist among the partners.

These costs must be accounted at Fair Market Value and must be reasonable and in line with industry norms and practices.

A project partner cannot also be a sub-contractor or consultant.

The total amount of sub-contracts or consultancy cannot exceed 70% of the total value of the Pilot Project costs.





EQUIPMENT, FACILITIES & SUPPLIES

Supercluster funding covers the purchase of new equipment, rentals and direct operation and maintenance costs.

Up to 100% of the acquisition cost of new equipment may be claimed.

Capital & equipment spend cannot exceed 20% of total eligible project costs. Prior approval from NGen is required should there be a requirement for the project to incur capital/equipment spend in excess of 20%.

The use of existing equipment is considered an in-kind cost and is therefore not reimbursable. Only direct costs incurred in the operating the equipment may be eligible for reimbursement.

USER FEES

Service fees and subscription/license fees directly related to the project are eligible expenses.

Project administration fees charged to the projects by NGen are ineligible.

MATERIALS & SUPPLIES

Materials consumed by the project.

Materials supplied by subsidiaries or associated companies should exclude the profit element of the value placed on that material (i.e. these are to be valued at cost).

If waste or scrap material has a significant residual/resale value, the figures should reflect this.

ROOM OR FACILITY RENTALS

The cost of space in respect of the project. Overheads or costs incurred by the project in respect of the routine administration and operation of the organization, such as rent, utilities, etc. are ineligible.

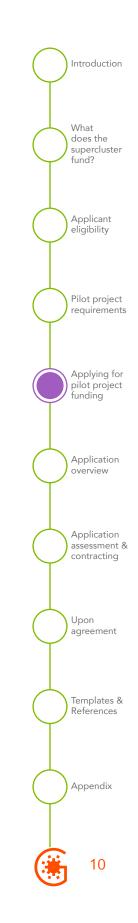
CONFERENCE COSTS

Costs related to renting facilities to support conferences and related telecommunication expenses are eligible but must have a specific and direct link to project activities.

For example:

A targeted Hack-a-thon to address a project challenge is an eligible expense.

Travel to an advanced manufacturing conference or industry association conference would be considered an ineligible expense.





TRAVEL COSTS

All travel expenses must be in accordance with the National Joint Council Travel Directive to be eligible for reimbursement.

Only reasonable costs incurred exclusively for advancing the project will be accepted as an eligible expense.

Alcohol is an ineligible expense.

DISSEMINATION COSTS

Publication costs of project results are eligible but must not include any dissemination costs relating to commercialization or production, such as marketing or advertising costs.

OTHER ELIGIBLE DIRECT COSTS

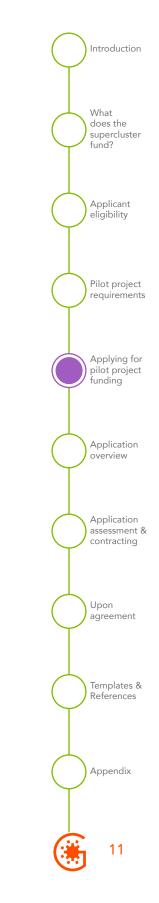
Other direct costs which can be specifically identified and measured as being incurred on behalf of project activities are eligible. For example: market studies.

CAPITAL COSTS

To be eligible for reimbursement under the Supercluster program, capital expenditures must be:

- Linked to the objectives of the project
- Vital for the success of research & development or demonstration of projects
- Not otherwise available as a shared resource
- Limited to the portion used over the project term
- Capital expenditures cannot exceed thirty percent of the total value of the project.
- Any change to project funding distribution or scope that would result in more than thirty percent of project expenditures being invested in capital assets requires prior written approval. This could result from reallocation of activities or de-scoping of non-capital activities.

Capital costs are subject to the above guidance for equipment.



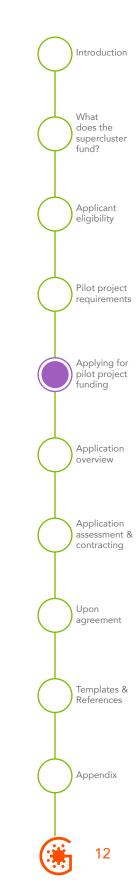


WHAT KIND OF PROJECT COSTS ARE INELIGIBLE FOR REIMBURSEMENT?

The following costs are counted towards the value of the project but are ineligible for reimbursement from Supercluster funding:

- Payments to federal entities, such as the NRC.
- Infrastructure costs (for example: property or plant used in the project.)
- Costs related to construction, purchase of a building or land with advance approval of NGen.
- Any eligible costs incurred before the approval of the project by NGen; projects will be notified when they are in the eligible funding zone.

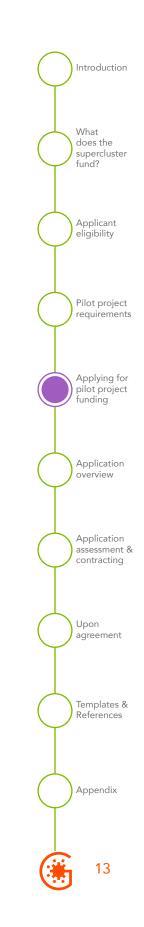






WHAT COSTS ARE INELIGIBLE?

- Utilization of existing capital or equipment costs.
- Capital, infrastructure or equipment costs unrelated to project objectives.
- Expenses relating to the construction, purchase of a building or land.
- Fines and penalties.
- Provisions for contingencies.
- Losses on investments, other projects, contracts, bad debts or expenses for the collection charges.
- Federal and provincial income taxes, harmonized sales tax (HST), goods and services taxes (GST), excess profit taxes or surtaxes and/or special expenses in connection with those taxes.
- Expenses and depreciation of buildings or rooms that are not in use during the project.
- Amortization of unrealized appreciation of assets.
- Depreciation of assets paid for by NGen.
- Honoraria, gifts, donations, entertainment expenses, and alcoholic beverages.
- Dues and other memberships other than regular trade and professional associations.
- Extraordinary or abnormal fees for professional advice unless the NGen's approval is obtained prior to incurring the cost.
- Premiums for life insurance where proceeds accrue to the recipient.
- Discretionary severance and separation packages.
- Costs related to the routine administration and operation of recipients, except salary costs specifically related to the eligible project.
- Costs related to overhead incurred by recipients.
- Costs for which the recipient is eligible for a rebate from federal, provincial, territorial or municipal government sources.
- Salaries of the Members of the Board of Directors.
- Legal, accounting and consulting fees in connection with litigation or financial reorganization.
- Activities where benefits accrue to a single firm or organization.
- Projects where, in the opinion of the Minister, there is no buy-in from Members and no collaborative aspect.



Application Overview

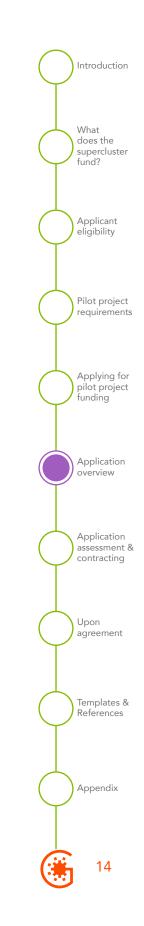


Applicants who meet eligibility requirements will be invited to submit a Single Application to provide:

- Names and contact information for each partner in the project.
- The name of the leading project partner (this information may be disclosed publicly) .
- A short title and description of the project to a maximium of 300 words (this information may be disclosed publicly).
- Project applications are assessed on answers to 10 questions:
 - Q1. What is the opportunity the project addresses?
 - Q2. What is the overall project and risk management plan?
 - Q3. What is transformative about the project?
 - Q4. What is the nature and size of the potential market the project will address?
 - Q5. What sort of economic benefits is the project expected to deliver to those inside and outside the consortium, and over what timescale?
 - Q6. What are the broader ecosystem, social, and environmental benefits of the project?
 - Q7. How will the results of the project be exploited?
 - Q8. Does the project team have adequate skills and experience, resources, and access to facilities to deliver the identified benefits?
 - Q9. How does NGen add value to the project?

Q10. What is the financial commitment required for the project?

- Application guidance with regards to the ten questions are provided in Appendix A. This input is not an application checklist but is intended to provide a broad level of guidance to the applicant.
- Where the word count limits make it impossible to cover all points, the recommended approach is to cover selected significant points thoroughly and with some rigor, and to avoid making broad, unsupported statements in the application.
- There is a 400-word limit to the answer for each question. Any words in excess of the limit will be removed.

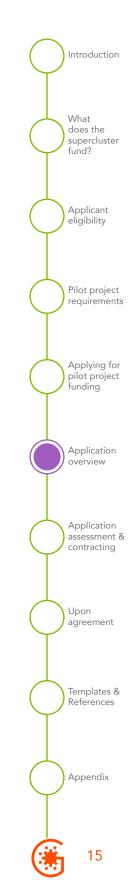


[Application Overview]



- In addition to the ten questions, applicants can upload six (6) appendices:
 - 1. Project Plan (DOC or XLS or MPP)
 - 2. Risk Register (DOC or XLS)
 - 3. Question Appendix (DOC or PDF)
 - 4. IP Strategy Summary (DOC or PDF)
 - 5. Financial Workbook
 - 6. Application Agreement
- Templates for the Financial Workbook, Application Agreement and IP Summary are available here. Links are provided in the Templates & References section.
- The Question Appendix is where graphs, charts and images required to support the application.should be uploaded. These attachments should be appropriately labeled (for e.g. Fig 1, Graph 1, Image 1 etc...) to ensure the assessors can properly consider them with the proposal.
- There are no templates for the Project Plan, Risk Register or Question Appendix.
- Risk registers, project milestone schedules and project work breakdown structures do not count against this word count limit.





Application Assessment and Contracting



Introduction

What

fund?

does the supercluster

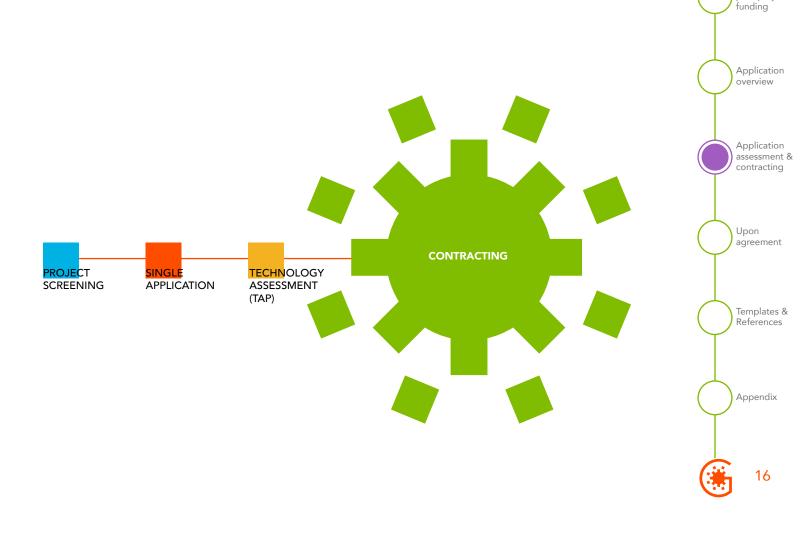
Applicant eligibility

Pilot project

requirements

Applying for pilot project

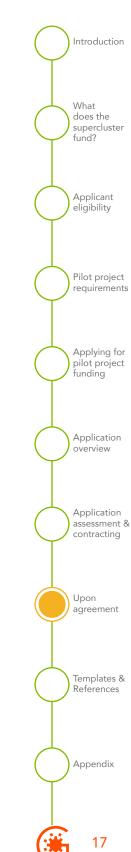
- Proposals are submitted online though the NGen Members Portal.
- Once submitted, proposals will be assessed by a panel of independent experts that evaluate and recommend which projects NGen will fund.
- Those projects that are selected for funding will be required to execute a Master Project Agreement that governs the funding and reporting requirements of the program, and a Collaboration agreement that defines the roles of project partners, allocation of projected costs, and joint risk management provisions.
- The Collaboration Agreement must set out how any foreground IP arising in the Pilot Project will be shared amongst project partners.
- The IP Strategy must indicate the types of foreground IP that project participants would be prepared to share (through licencing or other agreements) with other members of the Supercluster, specific exclusions to this, and under what conditions.
- NGen staff will work with funding recipients to monitor and report on the progress of projects.



Upon Agreement

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







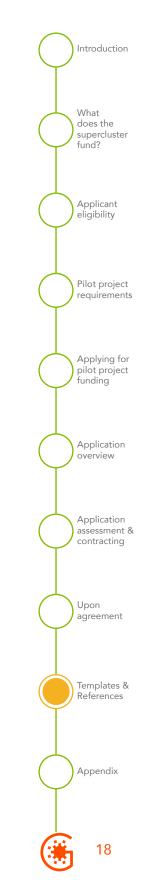
Templates & References



TEMPLATES ARE ACCESSIBLE HERE

- Financial Workbook template in Excel
- Financial Summary template
- Application Agreement template in PDF
- NGen Intellectual Property Strategy references
- NGen Intellectual Property template





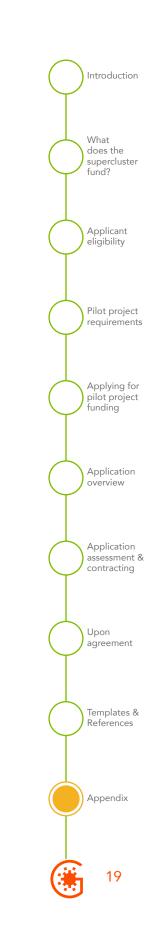
Appendix

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NGEN ASSESSMENT QUESTION GUIDANCE Based on 1-10 point score

1. What is the opportunity the project addresses?

- Outline the big-picture motivation and overall objectives the project is trying to achieve.
- Clearly define the business and/or technology opportunity.
- List any project partners and their overall opportunity and role within the project.
- Outline what the project team needs to do to successfully complete the project within the desired timeframe and budget. What are the specific challenges, research questions, and/or technical complexities that will be addressed?
- If the Pilot Project is intended to provide support to address critical gaps that would prevent the successful award of a larger NGen Project, identify these gaps and reference the Question response(s) under which these key gaps will be described in greater detail.



[Appendix]

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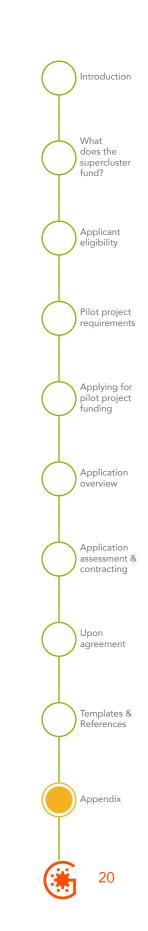
NGEN ASSESSMENT QUESTION GUIDANCE Based on 1-10 point score

2. What is the overall project and risk management plan?

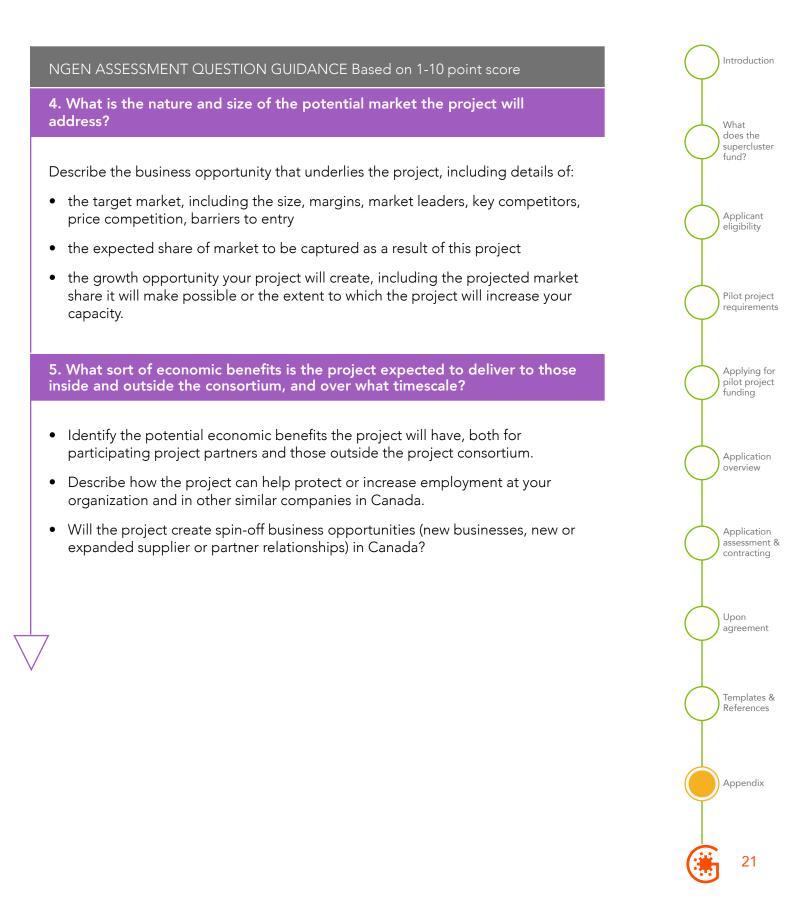
- Provide your overall project plan, including subtask descriptions where necessary.
- Identify the key milestones and deliverables that show how the overall project will be achieved.
- Explain who will do what on the project team and how collaboration, communication and alignment will be ensured.
- Provide an overview of the key risks to be overcome in the project in terms of likelihood and severity of impact and describe strategies for their mitigation.

3. What is transformative about the project?

- Explain how the successful completion of the project has the potential to transform or support the transformation of your organization.
- Where the successful completion of the project will provide an enabling platform for further technology development including a follow-on NGen project, identify the potential transformative impact of the overall strategy for each partner organization.
- Describe any novel research that will be undertaken as part of the project. Highlight and explain the timeliness and novelty of these research aspects of the project in an industrial and/or academic context.
- What is the plan and rationale for the protection and or sharing any resulting IP amongst your consortium partners and, beyond this, with other NGen members?







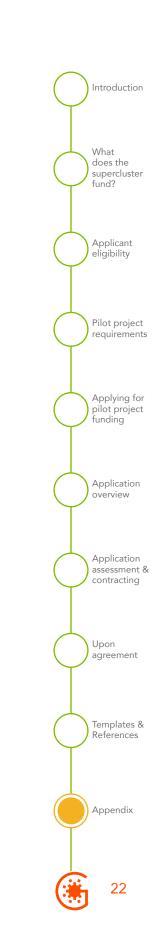


NGEN SINGLE & INITIAL APPLICATION GUIDANCE Based on 1-10 point score

6. What are the broader ecosystem, social, and environmental benefits of the project. Including the extent of collaboration with SMEs, academic, and other research organizations?

Describe the benefits this project will bring to the broader advanced manufacturing ecosystem:

- Are there opportunities for new skills development and training for existing staff? Is there interaction with colleges, universities and/or research institutes?
- Will the project help to develop or support the use of tools, testbeds, or data platforms that will foster future technology development, adoption, scale-up, and commercialization activity in Canadian manufacturing?
- Will the project further enhance the ability of industry, education, research, and other private and public organizations to work together to strengthen advanced manufacturing in Canada?
- Does the project offer broader social or environmental benefits to Canada or the Canadian Advanced Manufacturing ecosystem?





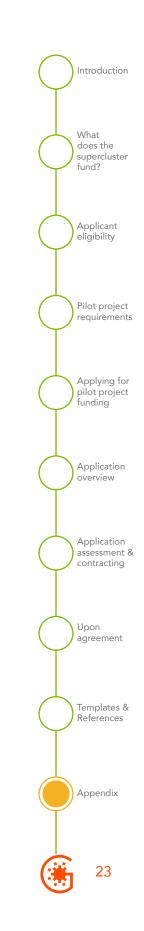
NGEN ASSESSMENT QUESTION GUIDANCE Based on 1-10 point score

7. How will the results of the project be exploited?

- Describe the activities that will be undertaken to ensure the sustainability and continued growth of the project outcomes beyond the project's end.
- If the results of the project will enable the members of the consortium to pursue additional and further development support under NGen or other manufacturing development initiatives, please identify how the proposed project fits into an overall development and growth strategy for your organization.

8. Does the pro-ject team have adequate skills and experience, resources, and access to facili-ties to deliver the identified benefits?

- Describe the track record of the project team members in undertaking and exploiting the results of research and development projects, to show your capability to develop and exploit the technology.
- Consider whether:
 - » the project team has the right available mix of skills and experience to deliver the project successfully
 - » appropriate governance structures are in place to manage and deliver the project





NGEN ASSESSMENT QUESTION GUIDANCE Based on 1-10 point score

9. How does NGen add value to your project?

Provide evidence that NGen support is essential to achieve the project goals. Questions to consider:

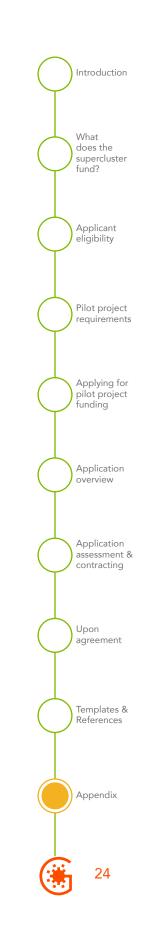
- How has the project scope changed due to NGen support?
- Is NGen funding critical to undertake the project as proposed?
- Does NGen funding allow the project to be undertaken differently (more quickly, at a larger scale, with more partners)?
- Would the collaborative partnership have been formed without NGen support?

10. What is the financial commitment required for the project?

- Ensure that all key points relating to the finances are described in the application form and that adequate resources are available to successfully complete the proposed activity.
- Supporting information and explanation for project costs should be provided in this section of the form, including high level costed work packages.

In evaluating the project, the assessors will consider the following questions:

- is the budget realistic for the scale and complexity of the project?
- is a financial commitment from other sources demonstrated for the balance of the project costs?
- have the costed work package breakdowns been described and justified adequately





Next Generation Manufacturing Canada

175 Longwood Road South, Suite 305 Hamilton, Ontario, Canada L8P 0A1 ngen.ca | ♥@ngen_canada

JOIN THE PERCI

NGen is founded on the principle that the transformation to advanced manufacturing will enrich the lives of Canadians, delivering better products and good jobs while generating the economic growth essential to a better future.

assistance in understanding the framework of the Innovation Supercluster Program. In case of any discrepancy or inconsistency Program Guide (which can be found here), the Innovation Supercluster Initiative Program Guide shall prevail.

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