

## **NGen SARS-CoV-2 CHALLENGE: DISINFECTION ROBOT - Project Guide V1.1**

### **OVERVIEW**

NGen is working with the Government of Canada to respond quickly to the COVID-19 pandemic and ensure the ongoing safety of Canadians.

We are allocating funding to those companies able to rapidly respond to the COVID-19 pandemic by building a Canadian supply of essential equipment, products, and therapeutics.

Projects will be selected for funding according to critical needs identified by the Government of Canada and the ability of manufacturers to produce products that are safe for both patients and health care workers.

### **The Challenge:**

With the advent of the SARS-CoV-2 (COVID-19), healthcare professionals and organisations are seeking hands-free disinfection methods that will help stop the spread of the virus. This challenge aims to provide solutions that would either reduce Healthcare Associated Infections (HAI) for the safety of patients and healthcare workers or disinfect private spaces and facilities so that business and companies can significantly increase the confidence that their employees and guests are safe, allowing companies to bring employees back to work in a safe environment.

Disinfection robots have been deployed successfully in other countries and are showing promising results in terms of reducing the spread of COVID-19 as well as other HAI incidents.

Companies interested in developing a made-in-Canada technology solution that would support large scale disinfection of spaces and surfaces are invited to apply.

### **Challenge Timeline:**

Opening date: April 23, 2020

Closing date: April 30, 2020 17:00 EST

## **Funding:**

Funding available per project: up to \$1m of NGen funding will be made available per project.

Projects can range in size and will be funded up to 50% of the total eligible costs.

Example: Total eligible project cost = \$2m funding at 50% would mean a total funding award of \$1m.

If the Total eligible project cost = \$4m the total funding award would remain at \$1m with a funding ratio of 25%.

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

Any member of the Advanced Manufacturing Supercluster may submit an application for project funding or apply to be considered as a partner or co-investor in Supercluster projects.

Register as a Supercluster member at <https://www.ngen.ca/join>

Recipients of Supercluster funding must be incorporated in Canada.

## **PROGRAM GOALS AND REQUIREMENTS**

Applicants must meet all eligibility criteria as outlined in this Guide.

Applicants must be able to develop a platform that can demonstrate an impact on COVID-19 within the next 3-6 months or earlier.

Companies must prioritize sales to Canadian organizations and meet those needs before sales outside of Canada can commence.

The project must provide evidence that health and safety regulations will be met, including evidence of efficacy against COVID-19 and safety of staff in facilities where the robots would be deployed.

The platform must advance the current state of the art in a manner that yields competitive advantages to Canadian industry.

Funding is available for the development of the platform up to and including prototyping and pilot production.

Eligible project costs are defined here: <https://www.ngen.ca/covidprojectguide>

Capital expenditures exceeding \$1 million are eligible but require approval by Innovation, Science, and Economic Development Canada. An expedited approval process has been established with ISED.

No project management fees will be charged on NGen's COVID-19 projects.

It is expected that collaboration will be required to achieve expected project goals. However, in exceptional circumstances, NGen may fund individual company initiatives.

Project proposals should specify the transformative nature of their initiative with respect to either the development of new technologies and manufacturing processes or the ability to rapidly increase existing capacity.

NGen funding is limited. We will look to enhance funding for promising projects by leveraging other government funding sources.

## **APPLYING FOR PROJECT FUNDING**

NGen has created a new process to manage and assess COVID-19 projects. This process has been designed to respond rapidly to the pandemic, but still meet key governance requirements established by the Government of Canada, including independent and evidence-based selection of projects that NGen will fund.

A dedicated portal has been developed and can be accessed by NGen Member organizations here <https://members.ngen.ca/covid-19-projects>.

- 1) Register as an Organizational member of NGen [www.ngen.ca/join](http://www.ngen.ca/join)
- 2) Click on "COVID-19" in the top menu bar.
- 3) Click on "Project Applications".
- 4) Note: You will be redirected to a Hockeystick site. Hockeystick is the host of the NGen application portal.
- 5) Login with the same NGen member login information.
- 6) Fill in all the Project Screening information within the Project Application portal and submit.
  - a. For this challenge please put the challenge name "DISINFECTION ROBOT" in the project title.

**Hockeystick** Language: English COVID-19 Response Project  
Janet MacInnon

Client Profile / Add new client

### Application Details

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**Project Disclaimer:** NGen will make every reasonable effort to maintain your information as confidential, however please be advised that any information you share with NGen through the application screening may be shared with the Ministry of Innovation, Science, and Economic Development and other provincial and federal government funding institutions. By submitting information to NGen you accept this.

**Project Details**

\* Project Title

\* Primary Project Location

\* Project Start Date

\* Project Duration (in months)

\* Total Project Cost

Project Number

**Public Project Description**

\* Brief summary of the purpose and objective of your project. Read the Application Guide for more information.

\* Is this a greenfield project (creates new IP and does not leverage existing IP)?  
 Yes  No

\* Would this project be first of its kind in Canada?  
 Yes  No

**NGen Investment Value**

\* Would you undertake this project without NGen investment?  
 Yes  No

Project Lead Details

Collaboration Partner Details (if applicable)

Project Financial Details

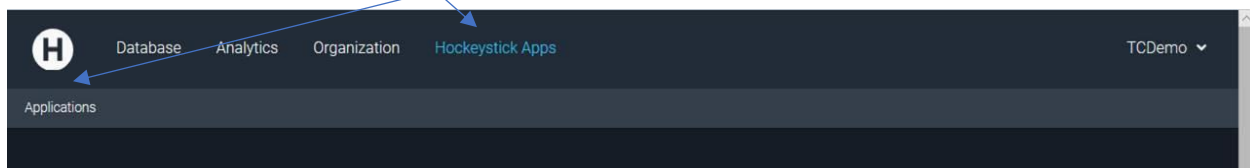
Cancel

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Once you have started your application and saved as a Draft. Here is how to get back into your Project in Hockeystick to continue working on it.

Log back into Hockeystick: <https://www.hockeystick.co/applications>

Hover your cursor on Hockeystick Apps. "Applications" will appear and that's where your project will be.



## **PROJECT SELECTION AND CONTRACTING**

- NGen will conduct a review using independent experts.
- Assessment panels including Government representatives will convene to review project proposals
- Recommendation for project funding will be made by independent expert assessors.
- If approved for funding, NGen will issue a Master Project Agreement (MPA) setting out the terms and conditions linked to the funding.
- The project applicant will submit final project documents along with a signed MPA.

## **ASSESSMENT QUESTIONS**

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

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

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

This guidance is intended to be answered by all applicants and not just the lead partner, so that the impact and anticipated benefits that will accrue are well defined.

### **1. What is the overall opportunity or challenge that your project addresses?**

*Response guidance:*

- Outline the objectives of the project, including the new technology opportunity it is intended to address.
- Describe the current and expected nature of the market for the product your project is intended to address.
- Clearly define the business and or technology challenge.
- Outline the expected outcomes, timeframe, and cost for your project.
- Provide quantified evidence of COVID-19 disinfection capabilities.
- Outline what data will be captured relevant to the operation and how this data will be utilized. This may include but not be limited to:
  - Path
  - Duration
  - Dosage
  - Disinfectant intensity
  - Coverage over time
- Describe and provide evidence of the potential effectiveness and efficiency of the system being developed.
- Describe the complexity of the operational set-up and deployment of the platform.

## **2. What is the transformational nature of the project?**

*Response guidance:*

- Identify the extent to which the project is transformative and innovative both commercially and technically. What new knowledge is being created by each partner organization?
- Provide evidence of the technical feasibility of the technology.
- Indicate any long-term benefits for Canadian manufacturers or the Canadian economy expected as a result of the project.
- The transformative impact of each project will be assessed on the following considerations:
  - 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?
  - Will the project provide an enabling platform for further technology development, application, and scale-up in Canadian manufacturing?
  - Will the project be recognized globally as conferring or strengthening Canadian leadership in advanced manufacturing?
- Outline evidence that the intended work is both transformative and innovative. This could include the results of patent searches, competitor analyses, literature surveys etc. If applicable, you should also outline your own background intellectual property rights, as related to the project.
- What is the plan and rationale for the protection and or sharing of IP among your consortium partners? Note: there is provision for a separate IP strategy to be uploaded to the portal to support your application.

## **3. How will Canadians benefit from the project, and over what timescale?**

*Response guidance:*

- Describe any health care or social or humanitarian benefits as a result of this project, both inside and outside of Canada.
- Describe any longer-term benefits the project would provide Canada beyond the COVID-19 crisis.
- Provide a description of the supply chain, ensuring where possible a supply chain based in Canada.
- Will the project lead to technological and business advantages that will significantly benefit Canadians?
- Will this additional capacity / capability enable you to make a lasting and positive impact for the Canadian manufacturing economy?
- Indicate whether the project would create spin-off business opportunities (new businesses, new or expanded supplier or partner relationships) in Canada.
- Describe what sort of economic benefits that the project might deliver in terms of employment, investment, or new product mandates in Canada.
- Provide as much information as possible to allow the assessors to better understand the short- and long-term impacts that this project might have.

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

*Response guidance:*

- Describe the activities that will be undertaken to ensure the stated objectives will be achieved.
- Identify partners that will be involved in the project, if any.
- Provide assurance that the product and manufacturing process can meet applicable standards and regulatory approvals.
- Provide a plan for testing and certification of the platform against operating characteristics.
- Provide evidence that the platform can operate safely in the intended environment.
- Outline a plan that demonstrates the ability of the project team to achieve the project outcomes within the stated timeline. Consider:
  - » the route to market, intellectual property, changes to business models or processes.
  - » measures for protection, commercialization and dissemination of the project outcomes.
  - » types of exploitation, such as licence to manufacture, manufacturing or direct sales.
- Details of planned follow-on spend if required to achieve the result.
- Describe how you will structure distribution and pricing for the platform.
- What procurement actions with organizations or the government have been taken into consideration. Is there additional funding required for the project to succeed?
- Demonstrate a clear understanding of the regulatory framework for the product or process and demonstrate that regulatory steps are integrated in the project plan.
- Describe the immediate needs of Canadians, that will be served by this project.
- Identify your materials and components requirements and present a plan for sourcing them over the duration of your project.
- Provide validation and evidence as much as possible for your statements.

#### **5. What is your overall project and risk management plan?**

*Response guidance:*

- Provide your overall project plan, including work-package descriptions and sub-tasks, and identify the key milestones and deliverables that show how the overall project will be achieved.
- Each work package should include: Description of activities, objectives and areas of work; a list of partner(s) involved if applicable; technical approach and methodologies; and key dependencies for each work-package. Where there are interdependencies between work-packages please highlight these and include in the risk management plan where appropriate.
- Describe the technical approach, project management tools, explain how and why it is appropriate for the project, how the steps in the project will be achieved, and how you will measure success.

- Describe the resource requirements for successful project completion, including how work will be shared among project participants and partners.
- Provide a risk analysis. Identify any obstacles that you foresee standing in the way of successful project completion.
- Identify key risks within the project. Consider at least the technical, regulatory, commercial, managerial and financial risks that could appear in the project and provide appropriate analysis of the likelihood and impact of each of the risks along with appropriate risk management strategies, such as mitigations.

**6. Does the project team have the right skills and experience and access to facilities to deliver expected outcomes and benefits?**

*Response guidance:*

Consider and address:

- Describe how the project has the right mix of partners and skills to deliver the project requirements successfully? Do you have the right skills for product development and appropriate manufacturing capabilities?
- Describe the testing and facility requirements in order to achieve the stated outcomes, including the suitability of the facilities and any modifications that are required.
- Describe the track record of the project team members to show your capability to develop and execute on the proposed project.
- Are the objectives and role of each participant clearly defined among members of the project team?
- Are there gaps in the expertise required to complete the project? If so, what are those gaps and how will they be addressed?

**DOCUMENTS REQUIRED FOR ASSESSMENT**

- Project Management Plan
- Risk Register
- Intellectual Property Strategy
- Financial Workbook template in Excel - template available below.
- Financial Summary template - template available below.
- Application Agreement template in PDF - template available below.

Templates for the assessment will be made available for download at:

<https://www.ngen.ca/covidprojectguide>

**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.