

Background

The Pennsylvania Department of Community and Economic Development (DCED) established the Manufacturing PA Innovation Program to leverage the internationally acclaimed science and engineering talent and discovery capacity of Pennsylvania's institutions of higher education to ensure that Pennsylvania remains a national and international leader in manufacturing and achieves the full economic potential for high-paying manufacturing jobs. This initiative supports manufacturing research collaborations between accredited PA colleges/universities and PA manufacturers. The goal of the program is to enable these institutions to seamlessly bring their capabilities to bear to support industrial innovation and position the Commonwealth at the forefront of the next wave of manufacturing.

Through the COVID-19 Challenge opportunity, DCED seeks to engage PA colleges and universities in the rapid [development and deployment of new technologies, products, and processes with the potential to positively impact the Commonwealth's response to the COVID-19 pandemic](#).

Request for Proposals

DCED is now soliciting proposals from faculty Principal Investigators (PI) at any accredited PA college/university for projects that fit within the [program guidelines](#) and address the Commonwealth's response to the COVID-19 pandemic.

The aims of technologies, products, and processes *may include, but are not limited to*:

- Accelerating the availability of COVID-19 diagnostics/therapies/vaccines;
- Rapidly scaling manufacturing capabilities and enhancing supply chains for the production of personal protective equipment and other medical equipment/devices/supplies; and
- Developing techniques for disinfection and sterilization, and filtration and separations.

Proposals must:

- (1) Include a Pennsylvania manufacturer/healthcare provider partner that has written a letter of support for the project **or**
- (2) Outline plans for the engagement of a strategic manufacturer/healthcare provider in the state to transition the technology, product, or process innovation following the conclusion of the project. For the purposes of this RFP, Pennsylvania manufacturers *and* healthcare provider organizations (e.g. hospitals, nursing homes, etc.) may serve as project partners or strategic partners. Project partners may not receive state funding.

Proposals are due by **May 15, 2020** with award notices for selected projects expected to be issued by **June 15, 2020**. Faculty may obtain proposal and budget templates and submit applications on the ManufacturingPA website (<http://manufacturingpa.org/proposals/index.html>). Carnegie Mellon University's Manufacturing Futures Initiative is the fiscal agent for this program.

Project Requirements

The COVID-19 Challenge is a competitive funding program that will provide Commonwealth-funded incentive grants (approximately \$10,000 to \$25,000) to researcher-led teams at any accredited PA college/university engaged in a short-term (6 month maximum) manufacturing innovation project. Projects must focus on advancing a new technology, product or process innovation aimed at mitigating the COVID-19 crisis in Pennsylvania.

The period of performance will begin on July 15, 2020 and end on January 15, 2021.

PMFI funding may be used to cover faculty salary, an undergraduate or graduate student under the supervision of a faculty member, and other project-related expenses at universities.

Universities and project partners are required to provide leverage funding, targeted at \$1.00 for every \$1.00 of state funding, for labor and project expenses to complement the funding by the Commonwealth. Universities may cost-share non-state government funding sources related to the project. University under-recovered indirect costs may also be counted as cost-share (see description in Budget section). Project partners may provide cash, donations and in-kind contributions as leverage. The leveraged funds identified in a project proposal must be in place before COVID-19 Challenge funds are released to the project and must be expended during the period of performance of the project.

Proposal Review Criteria

Each submitted proposal will be evaluated under a common set of criteria outlined below. The evaluation criteria include intellectual merit/technical approach and the impact on Pennsylvania's response to the COVID-19 pandemic.

Intellectual Merit/Technical Approach: The proposal shall describe in detail the project's scope of work and the concepts used to achieve the results described. The proposal shall illustrate the relevance of the proposed effort to the technical topic(s) and the strength of the proposal team, including the depth of team member capabilities and experience and the ability of the team to successfully complete the project on-time within the proposed budget.

Ability to Address Pennsylvania's COVID-19 Response: The proposal must describe in detail the potential of the activity to lead to outcomes that address the COVID-19 response in Pennsylvania. The COVID-19 Impact criterion focuses primarily on manufacturing and healthcare outcomes. Is there a significant manufacturing/healthcare need that could be addressed by the proposed technology, product and process?

Technical Proposal Template

The Technical Proposal Template is available on the manufacturingPA website -- (<http://manufacturingpa.org/proposals/index.html>) and must be uploaded as part of the application in PDF format. The template requires the following information:

- Executive Summary (Abstract) of Project - limited to 300 words
- Project Description/Project Scope – Describe the problem and objective, technical approaches, and anticipated outcomes of the project. Must be at least **1 page and no more**

than 2 pages including any figures/tables and citations. Please use Times New Roman (or Times) font with 11 pt. or larger font size and 1 inch margins on each page.

- Anticipated Results limited to 200 words
- Relationship to Challenge Goals and Impacts on Pennsylvania – Describe the project’s impact on addressing the COVID-19 pandemic in Pennsylvania. Identify the project partner (manufacturer or healthcare provider) **or** outline plans to transition the technology, product or process outcome of the project to a Pennsylvania manufacturer or healthcare provider. Limited to 300 words

Additionally, the application may include a letter of support from a Pennsylvania manufacturer or healthcare provider that will serve as the project partner. The letter must include the contact name and full address for an employee who will serve as the partner’s point-of-contact for the duration of the project. The point-of-contact will be invited to attend events during the course of the project, and may also be asked to provide feedback on the program including a metrics report at the conclusion of the project. Language from the support letter may be included in program reports.

Budget Request

Project expenses must be submitted on the budget template (available on the manufacturingPA website) and uploaded with the application. Please consider the following requirements when preparing the proposed budget.

- Funds are to be expended by the lead university/college and are not eligible to cover project partner expenses. The latter should be included as cost-share.
- Faculty salary is eligible for DCED support under this program. Faculty salary may also be included as cost-share.
- PIs should be university faculty members. The project should be performed primarily by a tenured or non-tenure track faculty, staff members, and students at the lead university/college.
- Graduate and undergraduate students may be funded on the project. If the PI is not able to identify the specific student who will work on the project when the proposal is submitted, the student should be listed as “to be determined.”
- DCED research funding is limited at a 10% indirect cost rate applied to the Total Direct Costs and as such, is not subject to the university’s federally-negotiated indirect cost rate. Under-recovered indirect costs – variance between an institution’s federally-negotiated rate and DCED’s 10% rate – may be used as university cost-share. (Institutions that do not have a Federally-negotiated rate may not claim any under-recovered indirect costs as university match.)
- Other direct costs:
 - Graduate student: Provide graduate student level of effort and tuition/stipend required to support the student(s) that are funded by the project.
 - Undergraduate student: Provide undergraduate student hourly rate and estimated hours.
 - Travel: Travel is limited to expenses related to faculty and student meetings at the PA partner site. Travel costs are capped at state rate levels.

- Materials and supplies: Materials and supplies must be identified and justified as necessary.
- Non-Capital Equipment/Software: Equipment and software must be identified and justified as necessary.
- Printing/Publishing: Expenses must be described and justified.
- Subcontracts: Subcontracts require a statement of work, contact information, and budget identifying how the funds will be utilized. Subcontracts require approval from DCED prior to funds being released.
- Other: Other direct costs that do not fall into the categories above should be listed and justified as necessary.

Cost-share must be identified by cost category in the budget at a ratio of \$1 of cost-share for every \$1 of state funding requested. University cost share items must be outlined in terms of the type of cost-share (faculty time, student tuition/stipend) and the relationship to the project. The primary funding source must be provided. Please note that other state funding cannot be used as a cost-share source.

Project partners may offer cost share. Examples include cash cost matching, equipment/material donations, and in-kind use of company facilities, equipment, materials, and/or personnel to conduct demonstrations, consultations or other tasks directly related to the project. Any project partner cost-share listed in the budget must be confirmed in a letter of support accompanying the application. The company support letter **must** quantify the direct cash leverage value and/or the donation value of each in-kind activity. In-kind support will not be counted as leverage unless there is a detailed list of the in-kind donation(s) and the associated monetary value included in the project partner support letter. Upon award, the PI will receive a cost-share form to be completed by any external partner providing match and documentation to support the cost-share value(s) identified in that form will be required.

Budget Justification

A budget justification (or budget narrative) must also be submitted in addition to the itemized budget described above. The justification should outline the need for each item in the budget. When preparing a budget justification, please follow the same order of requested items/categories as outlined in the budget.

Signed Statement of Intent

A signed statement of intent from the University's authorized official indicating institutional endorsement of the proposal and willingness to participate in the project must be submitted with the proposal.

Invoicing and Cost-Share Reporting

Quarterly invoicing will also be required by the project's lead institution. Each invoice will be required to include a cost-share statement that includes the amount incurred to date, current and cumulatively, at the required 1-1 ratio. A cost-share form will be provided when projects are awarded. Reimbursable expenses will be paid up to the amount of cost-share reported.

In order for external cost-share to be claimed for the project, the project partner representative must complete/sign the cost-share form which verifies the cost-share (in-kind support/cash) incurred for the invoice period and provide documentation to support the cost-share value(s) submitted.

Reporting and Metrics

Per the DCED requirements, all PIs will be required to assist in identifying and measuring program effectiveness. These requirements include:

- Submitting impact information (metrics and case studies) for the project.
- Providing a progress report at the project mid-point and a final report at the conclusion of the project. Reports will be due within 30 days following the reporting period. Mid-point and final report templates will be provided.
- Participating in forums to discuss the project with PA manufacturers and DCED officials.
- Identifying DCED as a project sponsor in all project presentations, publications, and discussions of the project with the media.

Compliance with Sub-Recipient Agreement

Each lead university/college that is successful in receiving a COVID-19 Challenge award will be required to sign a sub-recipient agreement with Carnegie Mellon for PA DCED funds. The university/college must comply with PA DCED sub-recipient agreement language, including, but not limited to, nondiscrimination, conflict of interest, project records, and the PA Prevailing Wage Act.

Intellectual Property

The Commonwealth of Pennsylvania and/or DCED will make no claims to any Intellectual Property generated through COVID-19 Challenge projects. All IP terms and conditions will be governed by the university policies in place at the PI's university and any agreements that may exist between that university and the partner company.

Funding Contingency

Funding awards are contingent upon CMU receiving funds from DCED.

Submittal and Questions

The deadline for submitting proposals is May 15, 2020 at 11:59 pm. Please submit proposals via the online form on the manufacturingPA.org website and upload the Technical Proposal Template, proposed budget, budget justification, project partner letter(s) of support and University statement of intent. Questions should be addressed to Jennifer Leinbach, Executive Director, Office of Technology & Innovation, PA DCED, at jeleinbach@pa.gov or Colleen Mantini, Program Director, Manufacturing PA Innovation Program, at cmantini@cmu.edu.