



PHYSICAL SCIENCES AND ENGINEERING ACCELERATOR

OVERVIEW & APPLICATION PROCESS, 2022 FUNDING CYCLE

First deadline: Monday, November 1, 2021

OBJECTIVES

To accelerate research projects towards one of the following outcomes:

- (1) formation of a start-up company,
- (2) licensing the technology to an established company, or
- (3) securing follow-on industrial funding for continued R&D.

In this request for proposals, Harvard's Physical Sciences and Engineering (PSE) Accelerator is **especially seeking projects with strong potential to launch a start-up company**. Such projects, while faculty-led, **will benefit from** having a postdoc or final-year PhD student working on the project who is interested in being a founding member of the startup team. Consideration will also be given to projects with other development goals.

PROJECT TYPES

- The PSE Accelerator Awards are designed to support translational research aimed at extending preliminary observations, establishing proof-of-concept, scaling-up a product or process, and generating (or enhancing) intellectual property positions.
- Optionally, a portion of the budgeted activities may be outsourced to one or more external organizations, such as a software programmer or an engineering testing facility.

PROGRAM ELIGIBILITY

- Principal Investigators whose employer is Harvard University.
- Proposals need to be directed towards one or more aspects of the applied sciences, physical sciences, computer software or engineering.

FUNDING

- Awards will range between \$50,000 and \$100,000 per project.
- The PSE Accelerator generally funds 3-4 projects each year.
- Funding will not be subject to Harvard indirect expense charges.

PROJECT DURATION

- Projects should last between 6 and 12 months.

TERMS AND CONDITIONS OF THE AWARD

- The Principal Investigator will commit his/her time and effort, as appropriate, to lead and oversee the project.
- The project team will consist solely of the PI, Harvard postdocs and grad students.
- All intellectual property, including background patents, must be assigned to Harvard, and teams should acknowledge Harvard's intent to license any resulting and/or background IP.
- Budget items may not include PI salary or capital equipment. Certain other types of expenses are also excluded.
- Quarterly updates, either in person, via phone, or by email, shall be provided both to the faculty member's lead contact at OTD and to Alan Gordon, alan_gordon@harvard.edu.
- Project teams aiming to launch startups will have monthly meetings with OTD, including, where appropriate, OTD entrepreneurs-in-residence and other external mentors, to discuss the startup formation process and to receive guidance, mentorship, external introductions, etc. Specific details will be provided to the teams after the awards are granted.
- A final report will be due within thirty (30) days of completion of the project.

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APPLICATION TIMING AND FORMAT

- 2-page pre-proposals with preliminary budgets are due on Monday, November 1, 2021.
- Pre-proposals will be reviewed, and a subset of applicants will be invited by November 22, 2021, to submit full proposals.
- Full proposals with detailed budgets will be due on Friday, December 17, 2021. Applicants will be asked to present to the Advisory Committee. The Advisory Committee, tasked with selecting those projects to be funded, comprises Harvard faculty, entrepreneurs, venture capitalists, and industry leaders.
- The Advisory Committee meeting to select the projects to be funded will be held in February 2022. The meeting date will be set by early January.
- All submissions must be received no later than 6:00 pm on the respective due date, in Microsoft Word (.doc/.docx) or Adobe Reader (.pdf) format. Pre- and full proposals should be submitted by email to alan_gordon@harvard.edu. The subject line should read "Physical Sciences and Engineering Accelerator Proposal."

SELECTION CRITERIA

- The review criteria will emphasize the commercial potential of the research project; the existence of (or possibility of filing) intellectual property; and the delineation of a clear R&D roadmap detailing how Accelerator funding will lead to a value-creation inflection point.
- Particular consideration will be given to those projects that could result in a start-up company.

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HARVARD
Office of Technology Development

PHYSICAL SCIENCES AND ENGINEERING ACCELERATOR

SCHEDULE & DEADLINES, 2022 FUNDING CYCLE

IMPORTANT DATES

| | |
|----------------------------------|---|
| Monday, November 1, 2021 | Deadline to submit pre-proposals |
| Monday, November 22, 2021 | Announce decisions / solicit full proposals |
| Friday, December 17, 2021 | Deadline to submit full proposals |
| February 2022 | Funded projects selected and notified |

Please find, on the following pages, details of the required format for pre-proposals and full proposals.



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FORMAT FOR PRE-PROPOSALS, 2022 FUNDING CYCLE

Project pre-proposals should be no more than 2 pages long, excluding the cover page.

The emphasis should be on defining what the next value-creation inflection point is, and articulating how it will be achieved by way of a technical plan with well-defined milestones and a corresponding budget.

PAGE 1: COVER PAGE

Summary Information

- Title of Proposal
- Type of Project
- Requested Period of Performance
- Total Funding Requested
- Existing Intellectual Property (patents, copyrights)

Abstract

Contact Information (to be provided for each Principal Investigator)

- Name
- Title
- Department, Division, Center and/or Laboratory
- Telephone Number
- Email Address
- Harvard Room Number

PAGES 2–3: PROJECT PROPOSAL

Background and Significance

- What problem are you addressing and why?
- Briefly describe recent research directly relevant to the problem, including others in the field, and in particular, your own prior work if any.
- Highlight the novelty, risks, and potential benefits of the project

Research Plan

- Summarize the experiments you will perform to solve the problem (i.e., advance the technology to the next value-creation inflection point)

Key Personnel and Collaborators

- List of individuals/organizations required to complete the project.

Budget (funding will not be subject to Harvard indirect expense charges)

- Total amount requested

APPENDIX (OPTIONAL)

Relevant publications / manuscripts



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FORMAT FOR FULL PROPOSALS

Full project proposals should be no more than 10 pages long, excluding the cover page.

The emphasis should be on defining what the next value-creation inflection point is, and articulating how it will be achieved by way of a technical plan with well-defined milestones and a corresponding budget.

COVER PAGE: PI NAME AND DEPARTMENT, PROJECT TITLE, TOTAL BUDGET REQUEST

SECTION 1: PROJECT SUMMARY OR ABSTRACT

- A. Describe the need, problem or opportunity, and significance of the technology
- B. Describe the potential benefits of the proposed project with respect to advancing the technology
- C. State major research objectives of the project

SECTION 2: DETAILED PROJECT DESCRIPTION

I. Research Plan and Objectives

- A. Provide a brief introduction to the area of investigation
- B. Describe your specific research objectives and summarize the experiments you will perform to achieve each
- C. Estimate the cost and time required for completion of each objective
- D. Describe the anticipated results where possible
- E. Provide a work performance schedule or Gantt chart
- F. Propose key technical milestones for the project

II. Related Research and Research Support

- A. Describe significant recent research related to this proposal including your own work and others in the field

SECTION 3: INTELLECTUAL PROPERTY

- A. Provide a brief description of any inventions you have already made related to the proposed research
- B. Provide a statement about the current IP status of the invention
- C. Describe how the proposed research will add value to and enhance the invention's patentability and/or commercial potential and/or importance

SECTION 4: DETAILED BUDGET

- A. The research project may be structured such that some, or even a large portion of the approved, budgeted activities will be outsourced to one or more approved entities (e.g., contract research laboratories/organizations, engineering/design firms).

SECTION 5: KEY PERSONNEL & COLLABORATORS

APPENDIX – MANUSCRIPTS/PUBLICATIONS
