



# **18<sup>th</sup> Annual P3 Awards: A National Student Design Competition Focusing on People, Prosperity and the Planet**

## **Informational Webinar for Applicants**



**EPA P3 RFA**

**December 2, 2020**



## Webinar Objectives

- Review application information in the EPA P3 RFA:  
  
**18<sup>th</sup> Annual P3 Awards: A National Student Design Competition Focusing on People, Prosperity and the Planet**
- Provide guidelines for eligibility, submission, and technical aspects of application process
- Answer questions about the application process

- Please keep yourself muted during the presentation. 
- Questions will be addressed after the presentation.
- You may type your questions in the comment box. 
- No specific research project or idea can be discussed but clarifying questions regarding what is written in the RFA announcement may be answered.
- These slides and Q&A's will be posted on the website.



## Agency Contacts

- **Technical Contact:** Angela Page, Project Officer ([page.angelad@epa.gov](mailto:page.angelad@epa.gov)); phone: 202-564-7957 
- **Eligibility Contact:** Ron Josephson, Eligibility & Peer Review Officer ([josephson.ron@epa.gov](mailto:josephson.ron@epa.gov)); phone: 202-564-7823
- **Electronic Submissions:** Debra M. Jones, Administrative Officer ([jones.debram@epa.gov](mailto:jones.debram@epa.gov)); phone: 202-564-7839





## P3 Program Highlights

- Two-phase grants competition
- Teams of undergraduate and/or graduate students to design projects for sustainability
- Support innovative research on project designs
- Developed by an interdisciplinary team of students to:
  - **Improve quality of life for people**
  - **Promote prosperity by developing local economies, and**
  - **Protect the planet by conserving resources and minimizing pollution**



## P3 Program Goals

**Engage and educate** the next generation of students and communities with the P3 Approach

**Support innovative projects** that implement the P3 Approach, especially in communities with the greatest needs

**Demonstrate the technologies** to prove their effectiveness and value

**Foster development of enterprises** to disseminate the technologies in the target communities and elsewhere



## RFA & Award Information

- RFA will close on February 9, 2021 at 11:59:59 pm Eastern Time
- Estimated Number of Awards: Approximately 20 Phase I and five Phase II
- Anticipated Funding Amount: \$1 million total for all awards.
- Potential Funding per Award and Duration:
  - **Phase I:** One year and up to **\$25,000 total**
    - National Student Design Expo, 2022
  - **Phase II:** Two years and up **\$100,000 total**

**Read the RFA very carefully. All necessary information is provided**



## Specific Areas of Interest/ Expected Outputs and Outcomes

- Four separate Funding Opportunity Numbers (FON)
- Address one Research Area
  - Air Quality (Q1)
  - Safe and Sustainable Water Resources (Q2)
  - Sustainable and Healthy Communities (Q3)
  - Chemical Safety (Q4)
- May submit more than one application





## Specific Areas of Interest/ Expected Outputs and Outcomes (2)

### Air Quality FON: EPA-G2021-P3-Q1

1. Approaches to prevent and reduce air pollution, particularly in a multipollutant context
2. Emission reduction strategies for stationary sources
3. Emission control technologies to reduce mobile-source-related pollution
4. Measurement and monitoring methods to enable informed air quality decision-making at the state and local level
5. Technologies to measure low ambient concentrations of air pollutants
6. Technologies and approaches to reduce the level of personal exposure to air pollutants or indoor concentrations of pollutants
7. Technologies that reduce the level of air toxics in communities, which may include small, rural, tribal and/or disadvantaged communities
8. Technologies to provide more low-cost, easily implemented mitigation of radon contamination, especially in older homes or in low-income communities



## Specific Areas of Interest/ Expected Outputs and Outcomes (3)

### Safe & Sustainable Water Resources - FON: EPA-G2021-P3-Q2

1. Technologies for the rehabilitation of water infrastructure
2. Sampling devices to detect, collect and quantify microplastics in surface water, drinking water, sludge/biosolids and/or discharges from wastewater treatment systems
3. Novel technologies for point-of-use removal of Per- and poly fluoroalkyl substances (PFAS) from Drinking Water
4. Methods for detecting and monitoring waterborne pathogens such as legionella and/or mycobacteria
5. Innovative technologies and processes for stormwater management in small, rural, tribal, and/or disadvantaged communities
6. Non-brine producing technologies and processes for water reuse implementation in small communities
7. Technologies to detect and reduce exposure to lead in drinking water systems, such as developing simple, inexpensive tests for use in homes to check for lead in tap water
8. Innovative and potentially low-cost technologies for the rapid detection of antibiotic-resistant bacteria in wastewater
9. Technologies or methods to rapidly detect and distinguish between sources of pollutants in stormwater runoff or surface waters
10. Methods for analyzing and summarizing continuous water quality monitoring data utilizing user-friendly open-source software packages, statistical methods or technologies



## Specific Areas of Interest/ Expected Outputs and Outcomes (4)

### Sustainable & Healthy Communities - FON: EPA-G2021-P3-Q3

1. Development of replacements for polyvinyl chloride (PVC) and polyethylene (PE) water pipes which currently have a high probability of being discarded to landfills
2. Remediation of PFAS-contaminated soil and sediment
3. Development of construction materials that are less toxic, lighter, more compact, stronger, more durable, longer-lasting, more affordable, reusable and recyclable than currently used materials
4. Development of less toxic building materials for indoor spaces such as in floors, walls, and ceilings
5. Solutions to reduce the amount of food waste including food waste prevention, recycling and disposal technologies
6. Electronic components that are less toxic and/or easier to reuse and recycle
7. Management of disaster debris and waste
8. Research on how extreme events like pandemics may influence contaminant exposures and exacerbate associated health disparities in small, rural, tribal and/or disadvantaged communities.
9. Development of natural shoreline materials or designs to protect coastal communities from pollutant/contaminant migration under extreme events.



## Specific Areas of Interest/ Expected Outputs and Outcomes (5)

### Chemical Safety - FON: EPA-G2021-P3-Q4

1. Non-toxic chemicals that can replace toxic chemicals used in the manufacture of plastics (green chemistry)
2. Plastic children's products made from non-toxic materials
3. Non-toxic paints and coatings/cleaner manufacturing of coloration technologies: Cleaner manufacturing means development and use of pigment, dye, paint, and ink manufacturing processes, as well as the development of new coloration technologies such as biomimicry and structural color, that do not coincidentally produce polychlorinated biphenyls (PCBs).
4. Inherently flame-retardant materials—i.e., that do not use a flame-retardant coating or any PFAS
5. New chemicals that cause less depletion of stratospheric ozone than currently-used substances
6. New Approach Methodologies (NAMs) to help reduce or replace animal testing, as well as tools to assess their feasibility. EPA defines NAMs as technologies, approaches and combinations of them, including in vitro and in silico testing methods, and methodologies that can integrate and calculate data from various sources, and serve to reduce, refine or replace vertebrate animal testing.



## Points to Remember

- Student teams of undergraduates and/or graduate students
- Consider research that is conducive during the COVID-19 pandemic
- Consider addressing needs of small, rural, tribal and disadvantaged communities
- Focus research consistent with EPA's Strategic Plan, Goal 3: Greater Certainty, Compliance and Effectiveness; Objective 3.3: Prioritize Robust Science.
- Encourage partnerships with industry, non-governmental organizations (NGOs) and other educational and research institutions



# Eligibility Information

Public and private non-profit, degree-granting institutions of higher education located in the U.S.

Includes Community Colleges

Collaboration with colleges and universities outside the US is permitted, can be subawardee

No individual applications

No private companies

Foreign collaborators, data collection or use are OK.

- International budget needs to be justified, reviewed, and approved.



# Application Materials

- To apply under this solicitation, use the application package available at **Grants.gov**
- For further submission information see: **Section IV.F. “Submission Instruction and other Submission Requirements”**
- All necessary forms are included in the electronic application package, except for the current and pending support form, are available at:  
<https://www.epa.gov/research-grants/research-funding-opportunities-how-apply-and-required-forms>

**Make sure to include the current and pending support form in your Grants.gov submission**

**Please refer to the following RFA sections for additional information**



### IV. Application and Submission Information

- Required application materials including
  - Human Subject Research Statement (HSRS)
  - Scientific Data Management Plan (SDMP)

### V. Application Review Information

- Peer Review Criteria
- Relevancy Review Criteria



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- If interested in joining the **Peer Review Panel**, rather than applying, please contact Aaron Wishnuff ([wishnuff.aaron@epa.gov](mailto:wishnuff.aaron@epa.gov)); phone: 202-564-2055

**Thank you!**