2022 FuzeHub Advanced Materials Innovation Challenge
Application Questions

Applications are submitted online at https://fuzehub.smapply.io/
This document is for reference only

Overview of the Project

Provide a full but concise project description. Explain the concept and context of the project, including a high-level overview of the work to be executed and expected goals.

- What is the problem being addressed?
- How are you addressing it, and how is this solution better than the existing alternatives?
- What is/are the goal(s) of this project?
- Give a high-level description of the tasks required to accomplish these goals.
- While the use of technical/scientific terms is expected, be sure to use terminology that is commonly understood (e.g., if a term is very industry-specific, make sure to define it).
- By the time the reviewers finish reading this answer, they should be able to understand what it is that you are proposing to do.

Advanced Material Details

Elaborate on the advanced material part of the technology – is it a new material, a new application, both, or something else (new process, using waste in a new way, etc.)? How does the advanced material fit into your product or process? How does it compare to traditional materials (use comparison qualities that are relevant to the material in question, and make sure to include a cost comparison). How is it sourced, processed, manufactured, used, disposed of, etc.?

- While we will not make this answer public, do **not** disclose any information that could hinder the pursuit of patents or be otherwise considered confidential.
- When comparing to traditional materials, some relevant features could be, for example: strength, weight, density, clarity, quality, durability, life span, stress resistance, temperature resistance, responsiveness, availability of raw inputs, etc.
- If the advanced material is meant to replace a traditional material in manufacturing, what are the barriers to replacement and acceptance from the industry players?

What is the current development state of the technology? What type of IP protection does it need (if any), and how far into the IP process is the team? If applicable, who will own the IP? Are there regulatory concerns connected to the material/technology?

- Provide information detailing the technology's current state (i.e., theoretical, proof-of-concept, initial prototype, pre-production, pilot, post-production, etc.)
- Do you have a patent (utility, design, provisional, non-provisional?), patent pending, trademark, trade secret, etc.?
- If legal protection is not available/ applicable, how will you ensure that your idea is not duplicated by your competitors?

Environmental Impacts Only

How exactly does this project promote environmental sustainability? What are the environmental benefits of production/use/disposal of the technology? Are there disadvantages to this technology? Be descriptive and specific, making sure to quantify and qualify expected outcomes.

- This is a high scoring section of the application.
- This answer should include, but not be limited to the environmental impacts described in section **D. Eligible Types of Projects** of the guidelines (reduce use of toxic and/or non-renewable inputs, reduce creation of harmful byproducts, remediate pollution, etc.).
- Give a timeline for impacts, when appropriate.
- Social impacts may be included here.
- Reference any studies conducted, with a focus on independent 3rd party verifications/estimates.
- Include any data that supports your claim.

Economic Impacts Only

Describe the economic impacts of the project for years 1 through 3, such as job creation, increased sales, cost savings, increased attraction for new investments, new markets, etc.

- This is a high scoring section of the application.
- Be specific, quantify and qualify. "Will immediately create one part-time job, and 2 more full-time jobs within a year of project completion" is significantly better than "will create jobs".
- Give a timeline for each expected economic impact (e.g., "$50,000 in new sales within the first year, $575,000 in added new sales by the end of year 2").
- Include data to support your claims.

If this project is awarded, what additional resources (if any) will be required to bring the technology to market after the FuzeHub part of the project is completed? Who is your customer, and how will you reach them?

- List resources that will need to be acquired after the efforts detailed in this award (funding, workforce, facility, equipment, distribution network, etc.)
- Where will the product be manufactured/processed? Does an appropriate facility already exist? If yes, have they been contacted and shown interest? If not, how will the manufacturing be addressed?
- Will training be necessary for workers to be able to manufacture/ process/use the technology?
- If new jobs will be created, is there an appropriate pool of qualified candidates available in NYS?
- Where will additional funding be coming from?

Team

List all personnel actively contributing to this project.

- For each team member, aim to include:
    - Name
    - Organization
    - Position
    - Role in the project
    - Relevant qualifications, skills, degrees, experience, awards, etc.

- - Percentage of their workload committed to this project.
  - Are there any required skills/resources currently lacking from the team? If yes, explain how you plan on addressing it.

Scope of Work
Describe the specific tasks that will be accomplished under this award.

- Provide a roadmap for the FuzeHub-sponsored part of the project only (not to exceed 12 months), referencing the major milestones proposed. Include deliverables for each milestone.
- Who will be doing what and for how long? And where?
- How are the team's skills and experiences relevant to the required work?
- Does the team have the required resources (facility, equipment, software, additional funding, etc.) to complete the work?
- Make sure to link the activities in the scope of work to the costs in the budget.

Posted/Modified
August 26, 2022. Please check back to https://fuzehub.com/innovation-challenge/ for updates.