



# ASABE

*Engineering a Sustainable Future*

## **ASABE Bioprocess Startup Competition Guidelines**

Sponsored by:

In affiliation with:



## **Circular Bioeconomy Systems Institute**

ASABE

### **Contest Format and Information**

The purpose of the Bioprocess Startup Competition is to encourage students to develop a new product or process that utilizes a unique biological resource associated with the State of California. Students will design a product or process, conduct any necessary experimentation, testing, and/or modeling, and write a brief report describing their design and marketing of the product or process; a physical prototype is not required for competition. Student teams will pitch their ideas to a group of industry representatives serving as judges in a simulated “shark tank” format at the ASABE Annual International Meeting (AIM).

### **Competition Rules and Important Dates**

April 15<sup>th</sup>, 2024 is the deadline to submit Round 1 documents for the competition. No late submissions will be accepted. Teams will be informed of results by May 15<sup>th</sup>. The top 3 teams will be invited to compete in the final pitch at the Annual International Meeting.

Point of contact for questions & document submission:

Joe Sagues, Assistant Professor, Bio. & Ag. Engineering, NCSU

Email: [wjsagues@ncsu.edu](mailto:wjsagues@ncsu.edu)

The submission must include:

- The name, phone number and email of the team member designated to represent the team at the ASABE awards program.
- The name(s), phone number and email of the team's faculty advisor(s).
- The names of all team members (please review member eligibility in the next section).
- A file with a team or university logo.
- **Written report.** Requirements for the written report follow below.

*Finalists will be announced on May 15<sup>th</sup>, 2024*

## **Team Membership and Eligibility**

- All team members must hold ASABE membership as either undergraduate or graduate students and have been enrolled at the team school during the academic year of the competition. Students who graduate during the fall or spring semester immediately prior to the oral pitch presentation are eligible to compete. All team members must be ASABE members at the time of report submittal. There will be a 10 point penalty for each team member listed on the roster who is not an ASABE member, even if the team member is later dropped.
- The startup company must be created by the student team members without direct involvement from outside professionals or faculty. However, faculty, vendor technical support, or other professionals may be consulted for mentoring.
- The number of teams per institution is not limited. However, each team must be completely independent.
- The number of undergraduate and graduate students making up each team must be indicated on the submission form. Scoring will be conducted in such a way that teams composed completely of graduate students will not have an advantage over teams composed completely of undergraduate students. Teams may have any combination of undergraduate and graduate student members.
- The number of team members is not limited, but a maximum of six persons may participate in the oral pitch.

## **Written Report**

Each team must prepare a 3-5 page written report that abides by the following outline: (references are separate from the 3-5 page limit)

1. Company Overview

2. Novelty & Innovation
3. Engineering Design
4. Business Strategy
5. Social & Environmental Impacts

Each team must incorporate answers to the following questions throughout their report:

(Reports that answer the questions in list format will accepted without penalty)

1. What customer problem does your product and/or process solve? Why is it an important problem?
2. What is your company going to make? Describe your product and/or process and evolution of your design idea.
3. What's new or unique about your product or process?
4. Who is your target market? Detail the characteristics that define your target market.
5. How will your company positively affect the state of California?
6. Explain how your company contributes to at least three of the following principles of circularity: 1) design out waste and pollution, 2) keep products and materials in use, 3) regenerate natural systems, 4) increase use efficiencies, and 5) provide economic benefits
7. How will ethical and professional responsibilities inform your company's judgements?
8. Who are your competitors, and who might become competitors?
9. What is your company's competitive advantage? Why are you better than your competitors?
10. Who are the members of your team, and how will their experience aid in the startup's success?
11. How do you or will you make money? What is your business model?
12. How much money do you need to get started? How will this money be used?
13. What is your go-to-market plan?
14. How will your company ensure inclusion, diversity, equity, and access (IDEA)?
15. How will your company advance the field of Agricultural & Biological Engineering?

## Oral Pitch

Each team will have 10-minutes to convince judges their startup company is worth funding. PowerPoint presentations are encouraged. A Q&A session will follow each pitch. The presentation must cover the following 10 topics:

1. Problem
2. Solution
3. Market Size
4. Business Model
5. Competitive Advantage
6. Competition
7. Environmental Sustainability
8. Social Equity & Ethics
9. Team
10. Go-to-Market Plan

## Scoring

### First Round:

The First Round of the competition will score written reports submitted by all teams. **The top three teams will move onto the Final Round.**

### Report (50 pts):

- Formatting & page length: 5 pts
- Correct outline & topics: 5 pts
- Addressing questions: 30 pts
- Writing style: 10 pts

### Final Round:

The Final Round of the competition will score oral pitches by the three team finalists selected during the First Round of scoring. Overall final scores will be computed by summing the scores from the Report and Oral Pitch. Judges may apply additional penalties at their discretion up to disqualification for unforeseen design and competition issues, unethical or unprofessional behavior.

### Oral Pitch (75 pts):

- Pitch content:

- Problem: 5 pts
- Solution: 5 pts
- Market Size: 5 pts
- Business Model: 5 pts
- Competitive Advantage: 5 pts
- Competition: 5 pts
- Environmental Sustainability: 5 pts
- Social Equity & Ethics: 5 pts
- Team: 5 pts
- Go-to-Market Plan: 5 pts
- Pitch delivery:
  - Team effort: 5 pts
  - Visuals & aesthetics: 5 pts
  - Timing: 5 pts
  - Presentation mechanics: 5 pts
  - Response to questions: 5 pts

## **Awards**

Awards will be presented at the Student Awards Breakfast at the Annual International Meeting (AIM).

Overall Competition Awards:

1st: \$1,250

2nd: \$1,000

3rd: \$750