

FREQUENTLY ASKED QUESTIONS

Q: What are the benefits of participating in the Greentown Labs Circularity Challenge?

A: This program provides a unique opportunity for start-ups to partner with one of the world's leading chemical companies as they explore scaling their technology or business model innovation in the plastics, energy storage and recycling sectors to enable a circular economy.

Program benefits include:

- Opportunities for investment and partnership with BASF
- \$25,000 in non-dilutive funding
- Desk space at Greentown Labs
- Exclusive mentorship and access to BASF and Stanley Black & Decker executives
- Access to select BASF testing capabilities, global technical facilities and expertise

Q: Who is BASF, Who is Stanley Black & Decker, and What do they have to offer?

A: At BASF, we create chemistry for a sustainable future. We combine economic success with environmental protection and social responsibility. The approximately 122,000 employees in the BASF Group work on contributing to the success of our customers in nearly all sectors and almost every country in the world. Our portfolio is organized into six segments: Chemicals, Materials, Industrial Solutions, Surface Technologies, Nutrition & Care and Agricultural Solutions. BASF generated sales of around €63 billion in 2018.

Stanley Black & Decker is a \$13 billion revenue, \$20+ billion market capitalization, purpose-driven industrial organization. Stanley Black & Decker has 58,000 employees in more than 60 countries and operates the world's largest tools and storage business, the world's second largest commercial electronic security company, a leading engineered fastening business as well as Oil & Gas and Infrastructure businesses. The company's iconic brands include BLACK + DECKER, Bostitch, CRAFTSMAN, DEWALT, FACOM, Irwin, Lenox, Porter Cable and Stanley.



Working with BASF and Stanley Black & Decker can unlock many resources for a company – some more traditional of corporates, others more unique. The following lists what BASF and Stanley Black & Decker have to offer:

- Seasoned industry advisors and mentors
- Capital, potential for investment
- Technical expertise, global technical facilities with industry specific focus
- Physical infrastructure, testing facilities, labs, tools, materials pilot
- Global reputation
- Relationships with potential customers, distributors, suppliers

Q: Who is Greentown Labs and what does Greentown Labs have to offer?

A: <u>Greentown Labs</u>, the largest cleantech incubator in the United States, is currently home to more than 90 start-ups that collectively employ more than 1,000 people. Together, this passionate community of entrepreneurs is working to solve the world's biggest energy and environmental challenges. Greentown Labs boasts an 88% success rate and its community has collectively raised more than \$380 million—including 4 exits.

<u>Greentown Launch</u> is a six-month, industry-specific, structured acceleration program designed to drive deals between entrepreneurs and corporate partners. Over the last four years, Greentown Labs has run four Greentown Launch programs that have resulted in investment and partnership deals for over 65% of startup participants. We facilitate these deals through more than 80 hours of intensive business training, hands on mentorship from industry experts and a unique model of startup and corporate relationship building.

Working with Greentown Labs can provide access to a plethora of resources for a company. The following lists what Greentown Labs has to offer:

- 60,000 ft² of co-working space
- 40,000 ft² of prototyping lab space including a wet lab
- 40+ corporate partners
- \$250,000 value in resources including software tools, machinery, electronics equipment, legal services, manufacturing expertise, IP lawyers, real-estate consulting and more
- 150+ investors in network



Q: What role will Greentown Labs play in the Circularity Challenge?

A: Greentown Labs is a third party in the partnership between participating companies and the corporate partners. We have no vested interest in forcing an outcome; we simply facilitate the sixmonth program to see if mutually beneficial partnerships arise between the selected companies and the corporate partners we work with. At the outset of the program we work with both the corporate partners and the start-ups selected to determine what an ideal partnership would look like for all entities. Greentown Launch has a strong track record of sparking successful partnerships; 65% of past Greentown Launch entrepreneurs have entered into a meaningful partnership with the sponsor at the end of the program. Please visit our website for more on our past programs with Shell, DSM and Schneider Electric.

Q: What makes a strong applicant for this program?

A: Any start-up with an innovative solution to disrupt the plastics, energy storage and recycling value chains to enable a circular economy. Below are just a few examples of technologies that could address these use cases. Feel free to think outside the box!

Plastics: To push the limits of classical recycling, the program seeks innovative solutions to close the loop in the plastics value chain, such as:

- Advanced recycling technologies
 - for currently non-recyclable polymeric materials (including, but not limited to PETG, PVC, EPS),
 - for composite materials that cannot be separated and recycled today (e.g. Polyethylene/Aluminum laminates, or others)
 - mitigating contamination and degradation to ensure high quality recyclates (odor control, color removal, new additives such as compatibilizers or chain extenders to increase the performance of recycled plastics, ideally into the performance range of virgin materials)
 - boosted by tracer technologies for sorting efficiency
- Novel designs
 - of composites that can be readily separated (e.g. debonding on demand)



- replacing complex composites with single material solutions for better recyclability,
 while maintaining performance (e.g. replacement of composite barrier layers,
 replacement of black light protection layers in milk bottles)
- leveraging bio-degradable building blocks or additives
- Energy-efficient processes for depolymerization (including enzymes), pyrolysis or gasification to recover building blocks

Batteries: To increase the circularity of batteries and minimize wasted battery capacity and raw materials, we are looking for technologies that:

- Improve the collection of batteries/cells after initial use through innovative and new business models
- Improve how batteries/cells are analyzed to understand charge state and determine whether they should be reused, reconditioned, or recycled
- Revive a dead cell or battery without resorting to disassembly for recycling
- Enable direct recycling of battery materials (without leaching, pyrometallurgy etc.)
- Optimize recycling of valuable metals such as cobalt, nickel, lithium, etc.
- Create new batteries that can be reused, repurposed or recycled more often and more cost effectively

Digital Tools: Digital tools can be decisive to implement and manage new circularity business models and track progress in sustainability. This program is looking for creative ideas and solutions in this field, including:

- Digital platforms that enable new business models in circular economy
- Tools that help simulate and predict recyclability and guide designs
- Technologies that support tracking and reporting of value streams
- Approaches to make battery components or plastic parts smarter by incorporating IoT for lifecycle management (e.g. to enable battery components or plastic parts to report status and reusability or recycling options)
- Methods that can detect possible contamination and detrimental ingredients in materials such as plastics or battery components, that are fed back into the loop.



Q: What are the key programmatic dates and major milestones? (All Dates To Be Confirmed)

A:

Application Deadline: August 30th, 2019

- *Program Kickoff & Judging: September 30th, 2019

*Workshop 1: October 22nd-23rd, 2019

*Workshop 2: November 12th-13th, 2019

- *Workshop 3: December 4th-5th, 2019

- *Final Showcase: January 30th, 2020

Companies may choose to relocate to Greentown Labs over the course of the six-month program, but it is NOT mandatory. The cost of a desk will be free over this time period. In the past, many companies have chosen to permanently relocate after the six months is over, but this is not required.

Relocation is **NOT** mandatory!

*Dates TBC

Q: What are the potential outcomes of this program?

A: The goal of the program is to secure a mutually beneficial outcome for BASF, Stanley Black & Decker, and the selected start-ups. There is a possibility for investment from BASF's venturing arm, a JDA, a pilot, or other possible partnership agreements. There is no formal programming after six months; however, companies in strong partnership discussions will remain involved with those they were interacting with on the BASF side.

Q: What is the requirement for companies applying from abroad?

A: We welcome international applicants! There are five events that you will be expected to attend in person at Greentown Labs (Somerville, MA, USA) should you be accepted into the program. These events are listed above (Program Kickoff & Judging; Workshops 1, 2, and 3; Final Showcase). You will **not** be required to relocate for this program.



Q: What can I expect regarding IP protection?

A: Greentown Labs takes IP protection very seriously. **Start-ups should not share sensitive information in the program application.** High level company insight will be sufficient for selection into the program. Entrepreneurs will not be asked to share anything that they are not comfortable with during the application process. Start-ups may pursue an NDA with BASF once they are accepted into the program.

Q: How do I apply and are there any eligibility requirements?

A: Fill out the program application HERE via YouNoodle. The deadline is August 30, 2019.

In terms of eligibility:

Stage: Any stage firm, from pre-seed to Series B, is eligible to apply. We especially encourage Seed and Series A companies to apply.

Location: Companies in any location are eligible to apply. See below for more information specific to international applicants.

Q: I still have questions. How can I learn more?

A: Check out the program website <u>HERE</u>. You can also pick a time to connect with Katie Geusz, Senior Manager of Strategic Partnerships at Greentown Labs, by scheduling <u>HERE</u>.