

## REQUEST FOR APPLICATIONS

**Greentown Labs** requests applications from innovative startups in supply chain management, packaging products and materials, alternative foods and ingredients, and green fleets and battery management. Greentown Go Make 2022 with Mitsubishi Corporation (Americas) (MCA) and supported by the M-Lab Companies strives to decarbonize entire supply chains, from production through packaging and distribution.

### **Program Benefits for Startups:**

- A structured platform to engage leadership from MCA and explore potential partnership outcomes, including investment opportunities, development partnerships, and commercial partnerships
- \$25,000 in non-dilutive grant funding
- Mentorship, networking opportunities, and partnership-focused programming from the Greentown Labs community of climatetech startup experts
- Exclusive access to the Greentown Labs and MCA networks, including the M-Lab Companies, an open innovation coalition of major Japanese companies with their own respective innovation activities and CVC arms
- Desk space and membership within Greentown Labs for the duration of the program

### What We're Looking For

Manufacturing contributes [31 percent](#) of global greenhouse gas emissions. Supply chains connect manufacturers to upstream suppliers and downstream consumers, creating additional emissions as they power our global economy. From production to packaging and distribution, each stage of the supply chain needs robust climatetech innovation.

Mitsubishi Corporation (MC), MCA's parent company, launched "[Roadmap to a Carbon Neutral Society](#)" in October 2021 and "[Midterm Corporate Strategy 2024](#)" in May 2022, describing EX (Energy Transformation) and DX (Digital Transformation) initiatives. MCA believes that an integrated approach to EX and DX taking advantage of the competitive North American market is indispensable to achieve the company's ambitious targets.

In line with MC's EX and DX Initiatives, MCA is looking for startups at TRL 3 and above that decarbonize supply chains on the following four strategic themes.

## Program Scope

The program scope includes supply chain management, packaging products and materials, alternative foods and ingredients, and green fleets and battery management.

### **1. Supply Chain Management**

To decarbonize supply chains, planners need information that is not readily available. Where are emissions occurring and how? How do actions at one part of a supply chain affect emissions at another? To design decarbonization efforts for maximum impact, we seek solutions that can gather data in an integrated and actionable way.

- CO<sub>2</sub> visualization / reduction solutions with an intensive focus on physical assets such as warehouses, factories, vehicles, and commercial buildings
  - Identifying emissions flows and measuring emissions by sensors and other methods
  - Visualizing how emissions happen
  - Automatically building and developing countermeasures

### **2. Packaging Products & Materials**

Packaging is a critical element of supply chains: without it, goods are unusable by the time they reach the consumer. However, current approaches to packaging result in oceans and landfills cluttered with waste. Furthermore, the production of packaging itself creates carbon emissions. To protect goods as they move through the supply chain while creating minimal impact, we seek solutions across a range of approaches.

- Circularity solutions for packaging (e.g., traceability of recycled plastics; packaging manufacturing technologies that utilize CO<sub>2</sub> as an input; visualization and/or management of carbon footprint of packaging products; GHG separation, recovery, and reuse technologies relevant to packaging)
- Materials innovation for low-environmental impact of plastics (e.g., renewable, easily recyclable material technologies; biomass utilization technology)
- Sustainable packaging and supply chain solutions that can limit food loss (e.g., low-cost, sustainable cryogenic transportation solutions)

### **3. Alternative Foods & Ingredients**

Like the production of almost any good, the production of food has its own carbon impact. From direct emissions associated with livestock to the ecosystem impacts of inputs and land use, conventional approaches to feeding the world are not sustainable. To

bridge this gap, we seek solutions that can unlock new ways of producing food, as well as new foods themselves.

- High-output, low-environmental impact foods (e.g., alternative proteins; cultured meat/fish; algae, seaweeds, and insects; new types of novel ingredients)
- Low-impact inputs (e.g., environmentally friendly fertilizers/pesticides; sustainable feeds for animal/fish farming; life-vitalizing inputs, like microbes)
- Novel food production and enabling manufacturing technologies (e.g., indoor farms, aquaculture innovations, insect and algae production, precision fermentation)

#### **4. Green Fleet / Battery Management**

Supply chains are not complete until goods and passengers are delivered to the final destination. This distribution process needs to be decarbonized. But even lower-carbon modes of distribution have their own environmental impacts. To speed decarbonization efforts while proactively mitigating additional environmental impacts, we seek business model and technology innovations for holistic management of distribution resources.

- Solutions to optimize e-fleet management (e.g., collecting battery usage data; precise battery SoH estimation; utilizing battery as energy management resource without damaging its SoH)
- End-of-life solutions for e-fleets (e.g., used battery collection, storage, dismantling, and hauling; reuse or repurpose for increasing used battery residual value; advanced BMS for increasing capacity of combined unbalanced used battery)
- Solutions for recycling or production of e-fleet batteries to promote circularity (e.g., increasing material recovery ratio in lithium ion battery recycling; using flame-retardant electrolyte or utilizing new material or architecture for safety and easy handling in end of e-fleet life phase)

#### **Partnership with Mitsubishi Corporation (Americas)**

MCA is open to the following types of partnerships with startups selected for this program:

- Investment opportunities
  - Mitsubishi Corporation has a global network of around 1,700 group companies across virtually every industry; the company's investments include dozens of startups
  - MC/MCA seeks strategic return in addition to financial return in its investments, and collaborates with various stakeholders to effectively add value to startups

- Development partnerships, such as the following:
  - Research partnerships and co-development
  - Testing, proof of concept projects, and piloting
- Commercial partnerships, such as the following:
  - Licensing
  - Commercial agreements
  - Supplier-customer relationships
  - Go-to-market partnerships to support, for example, expansion into new geographies and markets such as Japan and Asia-Pacific

### Notes for Applicants

- Applications are due to the online portal by August 9, 2022.
- Applicants should plan to be available for virtual and/or in-person interviews after the application deadline, if selected for further rounds.
- Applicants should disclose the status of any intellectual property (IP) relevant to their submission. **Do not submit confidential information in the application process.** Awardees will enter into non-disclosure agreements to protect their intellectual property throughout Greentown Go Make 2022.
- Applicants may apply from anywhere in the world.
- If you are selected as a Greentown Go Make 2022 participant, a CEO/founder of your company will be required to attend all program events in order to enjoy full program benefits. Depending on the COVID-19 pandemic, events may take place onsite in Boston, virtually, or a combination of both. A tentative timeline is as follows:
  - Kickoff Event: October 6, 2022
  - Workshop 1: November 16–November 17, 2022
  - Workshop 2: January 11–January 12, 2023
  - Workshop 3: February 8–February 9, 2023
  - Final Showcase: March 30, 2023
- Greentown is committed to increasing diversity, maintaining an inclusive community culture, and creating a more sustainable planet for all. We welcome applications from founders and teams of all backgrounds, regardless of their ethnicity, race, gender, religious beliefs, sexual orientation, age, marital status, veteran status, or whether or not they have a disability.

### Greentown Labs

Greentown Labs is a community of climate action pioneers working to design a more sustainable world. As the largest climatetech startup incubator in North America,

Greentown Labs brings together startups, corporates, investors, policymakers, and many others with a focus on scaling climate solutions. Driven by the mission of providing startups the resources, knowledge, connections, and equipment they need to thrive, Greentown Labs offers lab space, shared office space, a machine shop, an electronics lab, software and business resources, and a large network of corporate customers, investors, and more. With its headquarters in Somerville, Mass. and an incubator in Houston, TX, Greentown Labs is home to 200 startups and has supported more than 450 startups since the incubator's founding in 2011. These startups have collectively created more than 8,400 jobs and have raised more than \$2.2 billion in funding. For more information, please visit [www.greentownlabs.com](http://www.greentownlabs.com) or [Twitter](#), [Facebook](#), and [LinkedIn](#).

## Greentown Go

[Greentown Labs'](#) [Greentown Go](#) programs inject momentum and traction into startup-corporate collaborations to decarbonize the global economy, unlocking the power of climate solutions at scale. These accelerator programs operate along five tracks, corresponding to the five major greenhouse gas-emitting sectors: [Go Build](#) (buildings), [Go Energize](#) (energy and electricity), [Go Grow](#) (food and agriculture), [Go Make](#) (manufacturing), and [Go Move](#) (transportation). Each track leverages the same proven, year-long Greentown Go framework that has delivered dozens of partnership outcomes to date, including pilots, licensing agreements, investments, joint development agreements, and more.

## About Mitsubishi Corporation (Americas)

Mitsubishi Corporation (Americas) ("MCA") is a wholly owned subsidiary of Mitsubishi Corporation ("MC"), a global integrated business enterprise that develops and operates businesses across virtually every industry. MCA is the holding company for MC group companies in North America. With offices and affiliates throughout the United States, Canada, and Mexico, MCA engages in business development in a wide range of industries, including natural gas, industrial materials, petroleum & chemicals, mineral resources, industrial infrastructure, automotive & mobility, food industry, consumer industry, power, and urban development.

For more information about MCA, please visit [www.mitsubishicorp.com/northamerica](http://www.mitsubishicorp.com/northamerica).  
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## About the M-Lab Companies

M-Lab, a consortium of large top-tier Japanese organizations based in Silicon Valley, has led the next generation of innovation by leveraging business capabilities, a vast



multi-national customer base, and access to corporate resources across industries and organizations since 2016. Participating companies have identified common initiatives to form a co-innovation in the mobility, healthcare, climate-tech, and materials sectors. The M-Lab consortium comprises 11 corporations, including but not limited to Mitsubishi Corporation (Americas), Tokio Marine Holdings Inc., Asahi Kasei America Inc., INTEC I.T. USA, ENEOS Americas Inc., Fujifilm Corporation, and Yazaki Innovations, Inc.

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