STARTUP ROADMAP

HELPING YOU NAVIGATE THE 02.10.20 EVENT... AND BEYOND

Being an entrepreneur in Cleantech is challenging. Not only are you solving complex problems -- and building a team, but also navigating many resources to make your company a success. This event and document is intended to provide you with a roadmap to identify the organizations that can help you based on your stage in the journey. Use it to network at this event and as a resource afterwards.

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ACTION Innovation Network is a collaborative network of technology business incubators and other entrepreneur support organizations. Together we promote the growth and success of the entrepreneurial ecosystem, share resources and best practices, strengthen technology clusters, and contribute to economic improvement. The network provides diverse resources and a highly-supportive hub in which entrepreneurs, business leaders, government agencies, community leaders, investors, universities, and other interested organizations can collaborate toward the successful commercialization of technology enterprises that will build a prosperous economy, improve quality of life and sustain the health of our environment.

Contact: Joan Popolo, Executive Director, jpopolo@actionnewengland.org
ORGANIZATION DETAIL

PRODUCT STAGES: All stages. Referral for startups to ACTION network member organizations and programs for international startups looking to establish a US presence.

TYPE OF ORGANIZATION: Network of support organizations: supporting technology-based incubators and entrepreneurial support organizations in New England covering multiple industries.

BENEFITS: For incubators/support organizations: shared resources, ecosystem collaboration. For startups: referral to incubators and support organizations, exposure for international startups.

OPEN TO: Open to all startups for referral. ACTION network incubators/support organizations may have criteria for startups.


NEED FUNDING SECURED: ACTION network incubators/support organizations may have criteria for startups.

MAX LIMIT ON FUNDING SECURED: ACTION network incubators/support organizations may have criteria for startups.

REQUIRED AFFILIATION: Member organization needs to be technology-based incubator or entrepreneur support organization to join the ACTION network.

FOCUS AREAS: For Cleantech, focus is on all areas.

MIN/MAX SUPPORT TIME REQUIRED: ACTION network incubators/support organizations may have criteria for startups.

MILESTONES/GOALS: ACTION network incubators/support organizations may have criteria for startups.

COST TO PARTICIPATE: ACTION network incubators/support organizations may have criteria for startups.

TIME OF YEAR: Year round.
**ORGANIZATION PROFILE**

**MISSION DRIVEN OCEANFRONT BLUETECH & MARINE FOCUSED INCUBATOR WITH BUSINESS & TECH DEVELOPMENT SUPPORT SERVICES, AND TARGETED MENTORING TO HELP STARTUPS SURVIVE, THRIVE AND COMMERCIALIZE.**

The Blue Incubator is driven to support innovative solutions for clean water, healthy oceans and climate change issues. The Blue Incubator is the core entrepreneurial element of the "Blue Innovation Center" the first BlueTech, water security & coastal resiliency hub on the US Eastern Seaboard with direct access to the Atlantic Ocean. The Blue Innovation Center will offer Startups & the "Blue Cluster" from Academia, Government and Industry shared collaborative on-site services for business development & commercialization, co-working & office space, labs and reliable ocean access for lab and in-ocean testing and training.

**Contact:** Judith Underwood, Co-Founder, judith@blueincubator.com

**STARTUP PROFILE**

**Atlas Prime NRG**

Established in 2017, Atlas Prime NRG strives to end systemic energy poverty and climate change starting in developing countries. Our technology is the first energy supply and storage solution designed to keep the environment clean, scale quickly, and so much more. It is working on transitioning the electricity generation sector to 100% renewable starting with the telecomm industry in emerging markets.
ORGANIZATION DETAIL

PRODUCT STAGES: All stages

TYPE OF ORGANIZATION: Incubator, water testing and training

BENEFITS: Mentoring, access/introductions to investors, specialized dual-use US Navy opportunities

OPEN TO: Open to all

LOCATION COVERED: International

NEED FUNDING SECURED: No

MAX LIMIT ON FUNDING SECURED: No

REQUIRED AFFILIATION: No

FOCUS AREAS: All of cleantech

MIN/MAX SUPPORT TIME REQUIRED: Minimum 12 hours per month

MILESTONES/GOALS: Monthly milestone and review

COST TO PARTICIPATE: Equity stake

TIME OF YEAR: Year round
Cleantech Open is the world’s oldest and largest accelerator and business plan competition for Cleantech startups. This is like a mini-MBA for your startup. We transform innovators into entrepreneurs and help grow the Cleantech economy. Cleantech Open Northeast (CTONE) covers Massachusetts, Connecticut, Rhode Island, New Hampshire, Vermont, Maine, New York, New Jersey, and Pennsylvania. In 2019, 32 teams graduated in the Northeast, and about 100 graduated across the US. The program runs annually during the summer months.

Contact: Beth Zonis, Northeast Regional Director, bzonis@cleantechopen.org

Radical Plastics is blending a patented catalyst with conventional plastics to create biodegradable plastic compounds. These materials have the same outstanding properties as conventional plastics, they can be produced on the same equipment at similar cost and, unlike bio-plastics, they are fully recyclable along with regular plastics so they support the circular economy. But if these materials happen to leak into the environment, they will cleanly and completely biodegrade within a matter of months. Radical Plastics was founded by two women each with advanced degrees in polymer science and over 25 years in the plastics industry. With this patented technology, we now have the ability to Reduce, Reuse, Recycle AND Redesign plastics so we can enjoy their many benefits without polluting our planet.
ORGANIZATION DETAIL

PRODUCT STAGES: Concept/R&D, Proof of Concept/Prototype, Pilot Project/Demonstrator

TYPE OF ORGANIZATION: Accelerator: programs for Cleantech early stage startups

BENEFITS: Mentoring; online curriculum; in-person events, including 2-day Academy, 2-day Regional Finals, and 3-day Global Forum; introductions to investors, showcasing, introductions to many experts; opportunities to win cash prizes ($40,000 regionally plus $50,000 nationally); in-kind products and services worth over $200,000

OPEN TO: Open to all

LOCATION COVERED: Northeast Region. We are part of a national accelerator. The Northeast region covers Massachusetts, Vermont, Maine, Connecticut, Rhode Island, New Hampshire, New York, Pennsylvania, New Jersey, and the Eastern half of Canada

NEED FUNDING SECURED: No

MAX LIMIT ON FUNDING SECURED: Cleantech Open supports early stage startups. Most startups in our program have < $1.5M in funding from private investors or less than $10M in funding from family, friends, and grants. There are exceptions and we encourage you to apply even if your funding levels are higher. We’ll evaluate your fit with the program holistically, considering your company’s ability to benefit from the program.

REQUIRED AFFILIATION: None

FOCUS AREAS: All of Cleantech

MIN/MAX SUPPORT TIME REQUIRED: Typically we match 4 mentors to each startup. Mentors spend 1-2 hours/week with their startup, sometimes concurrently.

MILESTONES/GOALS: There are 10 modules with almost weekly deliverables that are required for graduation. Work includes customer discovery, go to market strategy, financial model, sustainability strategy, executive summary, investor pitch, and more.

COST TO PARTICIPATE: Program fees

TIME OF YEAR: The end of May to early September for core program and deliverables. Regional finals will be in September in Boston, and Global Forum will be in October in San Jose.
ORGANIZATION PROFILE

GREENTOWN LABS

FOSTERING A PASSIONATE COMMUNITY COMMITTED TO SOLVING THE WORLD’S BIGGEST CLIMATE AND ENVIRONMENTAL CHALLENGES BY PROVIDING THE RESOURCES AND LABS STARTUPS NEED TO SUCCEED...

Greentown Labs is a community of bold, passionate cleantech entrepreneurs creating game-changing technologies that transform the way we live, work, and play. Located in Somerville, MA, and founded in 2011, the Greentown Labs Global Center for Cleantech Innovation is the largest cleantech incubator in North America, operating a 100,000 sq. ft. campus that enables more than 100 startups to solve today’s biggest climate and environmental problems. Its mission is to enable a vibrant community of startups to realize their visions by providing access to the resources and labs they need to thrive.

Contact: Cayman Somerville, Director of Strategic Member Growth, CSomerville@greentownlabs.com

STARTUP PROFILE

ACCION SYSTEMS

Accion Systems was founded to accelerate the exploration of space. To fulfill this mission, our experienced team develops in-space propulsion technologies that optimize scalability, performance, and efficiency. Accion’s flagship product, TILE, uses proprietary electrospray thrusters, bringing electric propulsion to satellites of all sizes and redefining in-space capabilities for the 21st century. Accion Systems was founded in 2015 by two MIT engineers, Natalya Bailey and Louis Perna, and is based in Boston, MA.
ORGANIZATION DETAIL

PRODUCT STAGES: Proof of Concept/Prototype, Pilot Project/Demonstrator, Commercialization, Scale up/Maturity

TYPE OF ORGANIZATION: Incubator: supporting Cleantech startups with lab facilities and programs

BENEFITS: At Greentown Labs, we help our member companies accelerate their startups through a curated suite of programs, resources, and tools. With our robust partner network, each member company gains access to more than $1M in resources including software tools, machinery, electronics equipment, legal services, manufacturing expertise, strategic introductions, neighborhood perks, and more. Additionally, Greentown Labs frequently hosts a variety of events and programs to help foster meaningful interactions between member companies, experts, and partners in the Greater Boston cleantech ecosystem. Greentown offers flexible, affordable prototyping lab and wet lab space for rent to allows startups to take their technology from initial R&D to rapid prototyping while preparing for manufacturing and commercial development.

OPEN TO: Open to all

LOCATION COVERED: Northeast Region, US, International

NEED FUNDING SECURED: Yes, dilutive or non-dilutive

MAX LIMIT ON FUNDING SECURED: No

REQUIRED AFFILIATION: No

FOCUS AREAS: All of Cleantech

MIN/MAX SUPPORT TIME REQUIRED: None

MILESTONES/GOALS: We don’t set goals for our members.

COST TO PARTICIPATE: Membership fees, rent

TIME OF YEAR: Year round!
ORGANIZATION PROFILE

DRIVING INNOVATION AND COLLABORATION IN THE COMMONWEALTH’S VIBRANT CLEAN ENERGY ECOSYSTEM

The Massachusetts Clean Energy Center (MassCEC) is a state economic development agency dedicated to growing Massachusetts’ clean energy economy while helping to meet the Commonwealth’s clean energy, climate and economic development goals. As a funder, enabler, convener, and facilitator for the Commonwealth’s vibrant clean energy ecosystem, MassCEC strengthens the industry by designing programs that drive innovation, connect industry players to new markets and invest in workforce development.

Contact: Jade Lui, Investment Analyst, jlui@masscec.com

STARTUP PROFILE

Autonomous Marine Systems (AMS) is an AI-robotics based company located at Greentown Labs in the Boston/Cambridge start-up ecosystem proximate to MIT and Harvard. It is developing a low-cost, autonomous sailing platform (Datamaran) which will revolutionize the way ocean surveys are conducted. In particular, the emerging offshore wind industry has a significant under-served need for long duration data sets acquired in and around the wind lease areas. Wind resource assessment, bathymetry, seabed geophysical measurements are just some of the applications that can be addressed by AMS’ platform. The Datamaran has undergone testing off the US northeast coast since early 2017 and has accumulated ~400 days of autonomous operation at sea. The company has secured customers in offshore wind, defense and the environmental monitoring sectors with over $1M in contracts awarded since Jan 2018. AMS aims to be the low-cost provider of self-deploying Datamarans to help address the most significant energy resiliency and climate challenges the world faces today.
ORGANIZATION DETAIL

PRODUCT STAGES: Concept/R&D, Proof of Concept/Prototype, Pilot Project/Demonstrator, Commercialization, Scale up/Maturity

TYPE OF ORGANIZATION: Investor, grant-maker: MassCEC funds many of the support organizations that are partners for this event.

BENEFITS: Grants for prototyping, pilot projects, cost-share on prime awards, and deployments with public interest customers. Seed and equity investments, venture debt loans, jobs board, internship program, and business development.

OPEN TO: Open to all

LOCATION COVERED: Massachusetts only

NEED FUNDING SECURED: No

MAX LIMIT ON FUNDING SECURED: No

REQUIRED AFFILIATION: No

FOCUS AREAS: Energy efficiency, storage, transportation, wind. Focus on significant CO2 reduction potential

MIN/MAX SUPPORT TIME REQUIRED: No

MILESTONES/GOALS: Varies based on program - could include technical milestones, commercial milestones, fundraising goals, pilot project-based milestones, etc.

COST TO PARTICIPATE: Varies based on program - most are zero cost. We also offer some grants with cost-share requirements and equity investments.

TIME OF YEAR: Varies per program. Grants can be on a rolling basis or a solicitation schedule. Investments are on a rolling basis.
MIT Enterprise Forum (MITEF) Cambridge was established in 1978, making us one of the oldest entrepreneurial-support organizations in the world. Our greatest impact is in accelerating the success of early-stage companies—as early as concept stage and pre-seed, but prior to significant institutional funding.

Contacts: Katja Wald, Executive Director, kwald@mit.edu

Amy Goggins, Program Director, agoggins@mit.edu
**ORGANIZATION DETAIL**

<table>
<thead>
<tr>
<th><strong>PRODUCT STAGES:</strong></th>
<th>Concept/R&amp;D, Proof of Concept/Prototype, Pilot Project/Demonstrator</th>
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<tbody>
<tr>
<td><strong>TYPE OF ORGANIZATION:</strong></td>
<td>Support organization: multiple program modules for early-stage startups</td>
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<tr>
<td><strong>BENEFITS:</strong></td>
<td>Founder education, mentorship, market visibility and community network</td>
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<tr>
<td><strong>OPEN TO:</strong></td>
<td>Open to all</td>
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<tr>
<td><strong>LOCATION COVERED:</strong></td>
<td>Massachusetts only. We do have some programs that can be accessed remotely for non-local startups.</td>
</tr>
<tr>
<td><strong>NEED FUNDING SECURED:</strong></td>
<td>No</td>
</tr>
<tr>
<td><strong>MAX LIMIT ON FUNDING SECURED:</strong></td>
<td>No</td>
</tr>
<tr>
<td><strong>REQUIRED AFFILIATION:</strong></td>
<td>No</td>
</tr>
<tr>
<td><strong>FOCUS AREAS:</strong></td>
<td>We support science and technology entrepreneurs in any industry vertical.</td>
</tr>
<tr>
<td><strong>MIN/MAX SUPPORT TIME REQUIRED:</strong></td>
<td>None</td>
</tr>
<tr>
<td><strong>MILESTONES/GOALS:</strong></td>
<td>Varies by program</td>
</tr>
<tr>
<td><strong>COST TO PARTICIPATE:</strong></td>
<td>Program fees</td>
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<tr>
<td><strong>TIME OF YEAR:</strong></td>
<td>Academic year - September through June</td>
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</table>
Fundamental research is the primary building block for technology-based and knowledge-based industries. To develop and support these industries, creative ideas must make the transition from research labs to companies, where they can be developed into products. Total federal R&D expenditures in the Commonwealth’s academic and nonprofit research institutions exceed $6 billion annually. More than 30 active technology transfer offices in Massachusetts universities, research hospitals, and nonprofit research institutes support the commercialization of research for the public good.

The Massachusetts Technology Transfer Center enhances this process by implementing programs aimed at increasing the quantity and quality of new technologies transferred, educating researchers on entrepreneurship and the technology commercialization process, and bringing together researchers, company executives and professional financiers to learn about new technological advances. These programs support new companies and strengthen the technology lead of the Commonwealth’s existing companies.

Contacts: Vinit Nijhawan, Interim Executive Director, VNijhawan@umassp.edu
         Priya Yadav, Director, PYadav@umassp.edu

Titan Advanced Energy Solutions (Titan) maximizes the utility of lithium-ion batteries (LiB) by using advanced algorithms and ultrasound technology for first and second-life applications. Our team of scientists, engineers, and inventors has developed an advanced battery management systems (ABMS) that provides over 99% SoH & SoC accuracy over the life of the battery. The benefits of this dramatically improved accuracy are significant: +20% increase in charge capacity and 2X increase in battery life. Titan’s proprietary technology also provides unprecedented safety monitoring through early detection of outgassing, lithium plating, and dendrite growth. Suitable for battery manufacturing, automotive, ESS, and consumer electronics, Titan’s ultrasound-based system brings benefits to battery manufacturers, integrators, energy producers, and ultimately, consumers.
ORGANIZATION DETAIL

PRODUCT STAGES: Commercialization

TYPE OF ORGANIZATION: Support organization: core competencies benefiting other organizations include grants management, events management and entrepreneur coaching, covering areas of Massachusetts leadership such as material sciences, bio-med, communications, computer sciences, nanotechnology, energy and environment, marine sciences

BENEFITS: Pitch coaching, help to recruit and entrepreneurial champion, non-dilutive funding

OPEN TO: Academic spinouts

LOCATION COVERED: Massachusetts only

NEED FUNDING SECURED: Yes, dilutive or non-dilutive

MAX LIMIT ON FUNDING SECURED: No

REQUIRED AFFILIATION: No

FOCUS AREAS: All of Cleantech

MIN/MAX SUPPORT TIME REQUIRED: None

MILESTONES/GOALS: Recruit an entrepreneurial champion

COST TO PARTICIPATE: None

TIME OF YEAR: Year round
ORGANIZATION PROFILE

THE VOICE OF THE CLEAN ENERGY BUSINESS IN THE NORTHEAST

NECEC's mission is to create a world-class clean energy hub delivering global impact with economic, energy and environmental solutions. NECEC helps clean energy companies start, scale and succeed with our unique business, innovation and policy leadership.

NECEC includes the Northeast Clean Energy Council, a 501(c)(6) trade member organization, and NECEC Institute, a 501(c)(3). The Northeast Clean Energy Council is the lead voice for hundreds of clean energy companies across the Northeast, influencing the energy policy agenda and growing the clean energy economy. NECEC Institute leads programs that support innovation & entrepreneurship.

NECEC Institute leads programs that support innovation and partnership including Cleantech Open in the Northeast and Cleantech Navigate.

Contact: Alistair Pim, Vice President, Innovation & Partnerships, apim@necec.org
ORGANIZATION DETAIL

PRODUCT STAGES: All stages

TYPE OF ORGANIZATION: Advocacy organization

BENEFITS: Educational and networking events throughout the year including our Emerging Trend Series events and Green Tie Gala Awards Dinner. Policy advocacy through working groups to open up new market opportunities for the clean energy industry.

OPEN TO: Open to all

LOCATION COVERED: Northeast region

NEED FUNDING SECURED: Different programs have different criteria

MAX LIMIT ON FUNDING SECURED: No

REQUIRED AFFILIATION: Focus on clean energy

FOCUS AREAS: All of Cleantech

MIN/MAX SUPPORT TIME REQUIRED: Our accelerator, Cleantech Open Northeast has specified support times. Other programs and NECEC membership do not.

MILESTONES/GOALS: No for NECEC, but CTO Northeast has milestones

COST TO PARTICIPATE: Membership fees, program fees

TIME OF YEAR: Not relevant for NECEC; annual membership
ORGANIZATION PROFILE

YOUR PARTNERS IN THE CLEAN ENERGY ECONOMY

NECEC Navigate Northeast’s mission is to support early stage companies directly and indirectly via partnerships with incubators and accelerators by addressing their pain points through personalized connection to curated regional networks of investors, corporates, and customers.

Contact: Catarina Madeira, Director, cmadeira@necec.org

STARTUP PROFILE

TerraVerdae Bioworks, established in 2009, is a performance bio-materials company developing bio-based and biodegradable polymers and materials. Our technology platform is based on the production of polyhydroxyalkanoates (PHAs) via fermentation of renewable carbon sources. TerraVerdae is currently introducing our PHA bioplastics technology to the industry in order to provide environmental solutions to organizations looking to address the negative environmental impact of traditional petroleum plastics. Our target applications include coatings, adhesives, agricultural films, personal care products, industrial components, and food packaging.
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<tr>
<td><strong>PRODUCT STAGES:</strong></td>
<td>Pilot Project/Demonstrator, Commercialization, Scale up/Maturity</td>
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<tr>
<td><strong>TYPE OF ORGANIZATION:</strong></td>
<td>Network of support organizations: programs for early stage startups following CTO, providing match-ups with focus on Cleantech</td>
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<tr>
<td><strong>BENEFITS:</strong></td>
<td>Access to our networks of investors, corporates and customers; customized connections (1x1 or virtual) and access to invitation only events</td>
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<tr>
<td><strong>OPEN TO:</strong></td>
<td>Cleantech startups located in the Northeast or aiming to do business locally and ranging from pilot to first customers</td>
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<tr>
<td><strong>LOCATION COVERED:</strong></td>
<td>US and Canada</td>
</tr>
<tr>
<td><strong>NEED FUNDING SECURED:</strong></td>
<td>No</td>
</tr>
<tr>
<td><strong>MAX LIMIT ON FUNDING SECURED:</strong></td>
<td>No</td>
</tr>
<tr>
<td><strong>REQUIRED AFFILIATION:</strong></td>
<td>Ideally they are already affiliated with a Navigate partner. If not we can help them with that process.</td>
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<td><strong>FOCUS AREAS:</strong></td>
<td>All of Cleantech</td>
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<tr>
<td><strong>MIN/MAX SUPPORT TIME REQUIRED:</strong></td>
<td>None</td>
</tr>
<tr>
<td><strong>MILESTONES/GOALS:</strong></td>
<td>All of the work we do with the startups is based on the connections they need, when they need it.</td>
</tr>
<tr>
<td><strong>COST TO PARTICIPATE:</strong></td>
<td>We are in transition when it comes to the cost.</td>
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<tr>
<td><strong>TIME OF YEAR:</strong></td>
<td>Year round</td>
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</table>
ORGANIZATION PROFILE

SUCCESS IS WHERE OPPORTUNITY AND PREPARATION MEET AND ENGAGE IN HARD WORK TOGETHER. NSIV IS FOCUSED ON YOUR SUCCESS!

Transforming innovative Cleantech and Life Science startups with promising concepts into viable businesses that impact lives. North Shore InnoVentures is focused on graduating complete companies, so we provide a curated set of programs and services, dedicated to helping our members through their discovery phases.

Contact: Trish Fleming, Director Mentoring, trish.fleming@nsiv.org

STARTUP PROFILE

Radical Plastics is blending a patented catalyst with conventional plastics to create biodegradable plastic compounds. These materials have the same outstanding properties as conventional plastics, they can be produced on the same equipment at similar cost and, unlike bio-plastics, they are fully recyclable along with regular plastics so they support the circular economy. But if these materials happen to leak into the environment, they will cleanly and completely biodegrade within a matter of months. Radical Plastics was founded by two women each with advanced degrees in polymer science and over 25 years in the plastics industry. With this patented technology, we now have the ability to Reduce, Reuse, Recycle AND Redesign plastics so we can enjoy their many benefits without polluting our planet.
ORGANIZATION DETAIL

PRODUCT STAGES: Concept/R&D, Proof of Concept/Prototype, Pilot Project/Demonstration, Commercialization, Scale Up

TYPE OF ORGANIZATION: Incubator: labs and programs supporting Cleantech, Life Sciences and Medical Device startups

OPEN TO: Cleantech, Life Science, or Medical Device startups

BENEFITS: Time to focus on achieving milestones, conserving cash, and building the company infrastructure and culture. Achieved through: a) curated relevant mentoring with relevant industry expertise; b) $500K of sponsored services available to members (legal, software, introductions, accounting, recruiting, market intelligence, equipment); c) well-equipped, well-managed, and affordable lab and space; d) educational programs driven by startups’ needs; e) a strong partner network; f) a focus on progress, professional growth, and graduating a complete company

LOCATION COVERED: Northeast region, International

NEED FUNDING SECURED: Yes, dilutive or non-dilutive

MAX LIMIT ON FUNDING SECURED: Must have 6-12 months cash reserves and ability to pay monthly service fees

REQUIRED AFFILIATION: No

FOCUS AREAS: All of Cleantech

MIN/MAX SUPPORT TIME REQUIRED: No, support is driven by the needs of the member company

MILESTONES/GOALS: We work with each member to define what “graduation” means and then develop a set of milestones for that company. Most milestones are non-technical. Goals are adjusted periodically through our regular review process.

COST TO PARTICIPATE: Rent, program fees

TIME OF YEAR: Admission is on a rolling basis
ORGANIZATION PROFILE

SOLVING THE WORLD’S BIGGEST PROBLEMS THROUGH SCIENCE, ENGINEERING AND LEADERSHIP

The Engine, built by MIT, invests in early-stage companies solving the world’s biggest problems through the convergence of breakthrough science, engineering, and leadership. Our mission is to bridge the gap between discovery and commercialization by empowering disruptive technologies with long-term capital, knowledge and connections, as well as specialized labs, equipment, tools and space they need to thrive.

Contact: Michael Kearny, Associate, michael@engine.xyz
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<td><strong>OPEN TO:</strong></td>
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<td><strong>LOCATION COVERED:</strong></td>
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<td><strong>NEED FUNDING SECURED:</strong></td>
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<td><strong>REQUIRED AFFILIATION:</strong></td>
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<td><strong>FOCUS AREAS:</strong></td>
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<td><strong>MIN/MAX SUPPORT TIME REQUIRED:</strong></td>
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<td><strong>COST TO PARTICIPATE:</strong></td>
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<td><strong>TIME OF YEAR:</strong></td>
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ORGANIZATION PROFILE

EXPEDITING MARKET ENTRY AND RAPID BUSINESS GROWTH

New Venture Development U Mass Lowell is a mix of university resources and equity investment. It offers a broad set of commercialization resources to innovation based startups. Activities are designed to provide a path to, and facilitate more, startup activity at UMass Lowell and the City of Lowell.

Contact: Michael Laine, Senior Manager, New Venture Development, michael_laine@uml.edu

STARTUP PROFILE

Dr. Onur Apul is Assistant Professor at the Francis College of Engineering at UMass Lowell and leads the Apul Research Group. His early-early stage business addresses commercialization investigation for his patent pending process for Bio-gas Production from Wastewater Plants. He is conducting a market fit analysis with a NSF I Corps Site Grant.
### ORGANIZATION DETAIL

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<thead>
<tr>
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<th>Concept/R&amp;D, Proof of Concept/Prototype, Pilot Project/Demonstrator, Commercialization</th>
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<tbody>
<tr>
<td>TYPE OF ORGANIZATION:</td>
<td>Academic. Mixing university resources and equity investment</td>
</tr>
<tr>
<td>BENEFITS:</td>
<td>Access to mentors, investors, commercialization workshops related to market fit, placement of technical and business talent (undergrad, grad and faculty) from the universities labs and colleges with strong collaborations to the greater Lowell business community through grants, state and local funding mechanisms</td>
</tr>
<tr>
<td>OPEN TO:</td>
<td>Open to all</td>
</tr>
<tr>
<td>LOCATION COVERED:</td>
<td>Northeast Region</td>
</tr>
<tr>
<td>NEED FUNDING SECURED:</td>
<td>Yes, but only non-dilutive (i.e., grants)</td>
</tr>
<tr>
<td>MAX LIMIT ON FUNDING SECURED:</td>
<td>No</td>
</tr>
<tr>
<td>REQUIRED AFFILIATION:</td>
<td>We encourage non-UMass start ups to utilize our lab, intellectual resources and City of Lowell incubator space</td>
</tr>
<tr>
<td>FOCUS AREAS:</td>
<td>Energy Efficiency, Solar, Storage, Water, Circular Economy</td>
</tr>
<tr>
<td>MIN/MAX SUPPORT TIME REQUIRED:</td>
<td>We offer as needed support (mentors, advisers, etc) as needed</td>
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