
Start Recording



CriticalMass 2025 Webinar

PRESENTED BY:

MASSCEC AND ACT INSTITUTE



CriticalMass 2025 Webinar

AGENDA

- TEAM INTRODUCTION
- MASSCEC & ACT INSTITUTE OVERVIEWS
- CRITICALMASS PROGRAM
- Q&A



The CriticalMass Team

Massachusetts Clean Energy Center



Leslie Nash

Senior Program Director
Tech-to-Market



Maddy Zeliff

Program Manager
Tech-to-Market



Dan Hibbs

Program Administrator
Tech-to-Market

Alliance for Climate Transition



Alistair Pim

Vice President
Innovation & Partnerships



Magdalena Wilk

Director
Navigate Program



MASSACHUSETTS
CLEAN ENERGY
CENTER®



Our Mission

The Massachusetts Clean Energy Center's mission is to accelerate the clean energy and climate solution innovation that is critical to meeting the Commonwealth's climate goals, advancing Massachusetts' position as an international climate leader while growing the state's clean energy economy.



Our Values

MassCEC is committed to creating a diverse, equitable, and inclusive organization where everyone is welcomed, supported, respected, and valued. We are committed to incorporating principles of diversity, equity, inclusion, and environmental justice in all aspects of our work.

ACCELERATING DECARBONIZATION

We contribute to meeting our state's ambitious climate goals by tackling barriers to widespread use of clean energy and climate technology in buildings, transportation, and the grid.

EMERGING CLIMATE TECH

We help new climate-focused businesses grow faster by backing a vibrant community of researchers, startups, and established industry players - creating an ecosystem where they connect and thrive.

MASSCEC'S WORK BY FOCUS AREA

LARGE SCALE DEPLOYMENT: OFFSHORE ENERGY

We're building a cutting-edge offshore energy industry, marshaling world-class ports while addressing supply chain and workforce development challenges.

CLEAN ENERGY & CLIMATE WORKFORCE DEVELOPMENT

We're growing a diverse and talented clean energy workforce by supporting a dynamic network of community-based organizations, labor, training providers, schools and employers committed to a sustainable future for all.

Mitigation

capture or reduce greenhouse gas (GHG) emissions

Adaptation & Resilience

prepare for and respond to the impacts of climate change

Enabling Solutions (leverage AI, data systems, etc. to achieve climate goals)

Energy



Increasing renewable energy generation (e.g., offshore wind), improving energy efficiency, and modernizing the grid leveraging batteries and energy storage technology

Transportation



Transitioning to zero-emissions vehicles (e.g. electric vehicles), enhancing public transit, and promoting alternative fuel options

Buildings



Improving energy and heating efficiency, transitioning to renewable energy sources, and implementing sustainable construction practices

Adaption & Resilience

Implementing climate-smart planning, strengthening infrastructure, and promoting nature-based solutions to reduce vulnerability to climate change with a focus on equity

Industry and Manufacturing



Adopting carbon reducing technologies and processes and implementing sustainable production practices through a circular economy

Agriculture, Food, and Nature

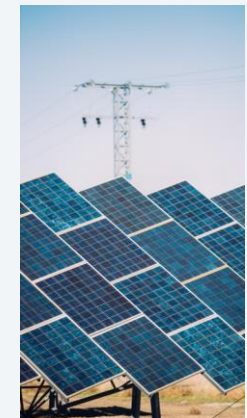


Adopting sustainable farming and forest management practices, developing alternative proteins, and leveraging nature-based solutions

Carbon Management



Developing and deploying carbon removal technologies, including bioenergy with carbon capture, direct air capture, and blue carbon technology



Emerging Climatetech



MassCEC Emerging Climatetech: Strategy

Stimulate the commercialization of early-stage, promising climate technologies while supporting company growth in the Commonwealth.



Provide stable **funding**



Achieve **climate goals faster and more cost effectively**



Bridge known **funding gaps**



Stimulate **local jobs and economic development**



Offer hands-on **support**



Promote **equity** in climatetech



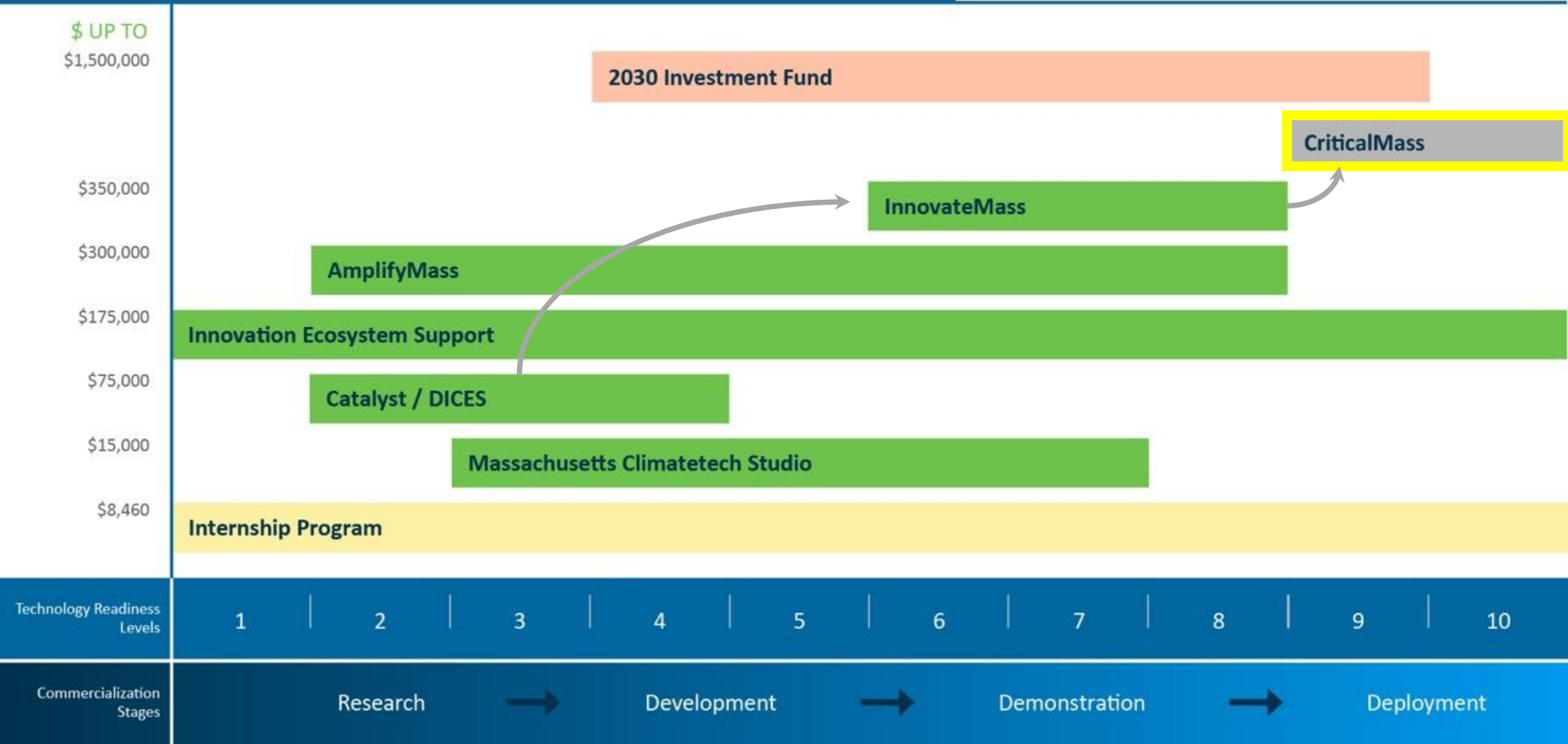
Support Across All Startup Development Stages

TECHNOLOGY TO MARKET PROGRAMS

Tech-to-Market Program

Investments Program

Workforce Program





Learn more about our
programs and services!





ACT

The Alliance for
Climate Transition

Innovation

At The Alliance for Climate Transition

The Innovation Team

<http://joinact.org>



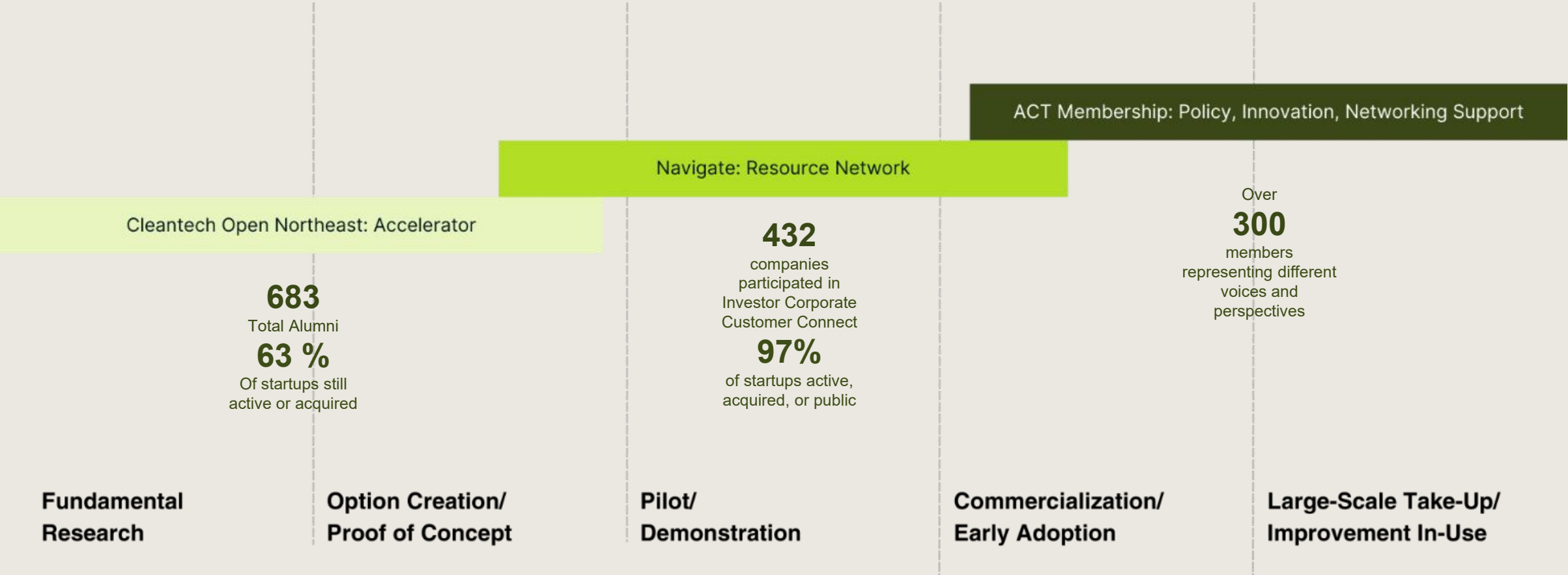
The Connective Thread

ACT leads the just, equitable, and rapid transition to a clean energy future and diverse climate economy. Our work spans renewable energy, grid modernization, clean transportation, building efficiency, climate tech innovation, workforce development, and community engagement. Our goal is a decarbonized, equitable Northeast where all communities access the benefits of sustainability.

Integrated Approach for Impact



We Work with Companies at All Stages of Development



ACT's Role Before Contracting - Laying the Foundation for Partnerships

As the Program Advisor for Critical Mass, ACT is here to support both Startups and Project Partners from the very beginning. Our goal is to help you build a strong foundation for collaboration.

- **Building Relationships:** We stay connected with Project Partners to understand their objectives, expertise and resource, so we can support strong, aligned partnerships with startups.
- **Encouraging Early Conversations:** We advise to connect as early as possible to assess alignment and potential collaboration opportunities - the sooner those conversations start, the more time you'll have to prepare a strong, well-matched proposal.
- **Preparing for Partnership:** We're here to offer support, if helpful, as teams think through how to approach roles and expectations - so everyone feels aligned before submitting an application.

ACT's Role After Contracting - Supporting Implementation and Ongoing Collaboration

ACT will continue to support both Startups and Project Partners throughout project execution. Our goal is to help teams stay aligned, overcome challenges, and deliver successful outcomes.

- **Monthly Check-Ins:** We will meet with teams each month to review progress, talk through any issues, and keep things moving forward.
- **Partnership Support:** We will help navigate potential funders or partners that could strengthen your project, and identify relevant grant opportunities along the way.
- **Expert Guidance:** Each team will have access to up to four tailored Expert-in-Residence (EIR) sessions to help navigate technical or business challenges
- **Ongoing Support as needed:** Support will be available throughout the project to address challenges, clarify next steps, or work through coordination - we're here to help.

CriticalMass 2025 Webinar

AGENDA

- ✓ • TEAM INTRODUCTION
- ✓ • MASSCEC & ACT INSTITUTE
- CRITICALMASS PROGRAM
- Q&A





CriticalMass Program Overview

1. The Challenge
2. Program Support
3. Timeline
4. Partners
5. How to Apply!
6. Contracting

The Challenge



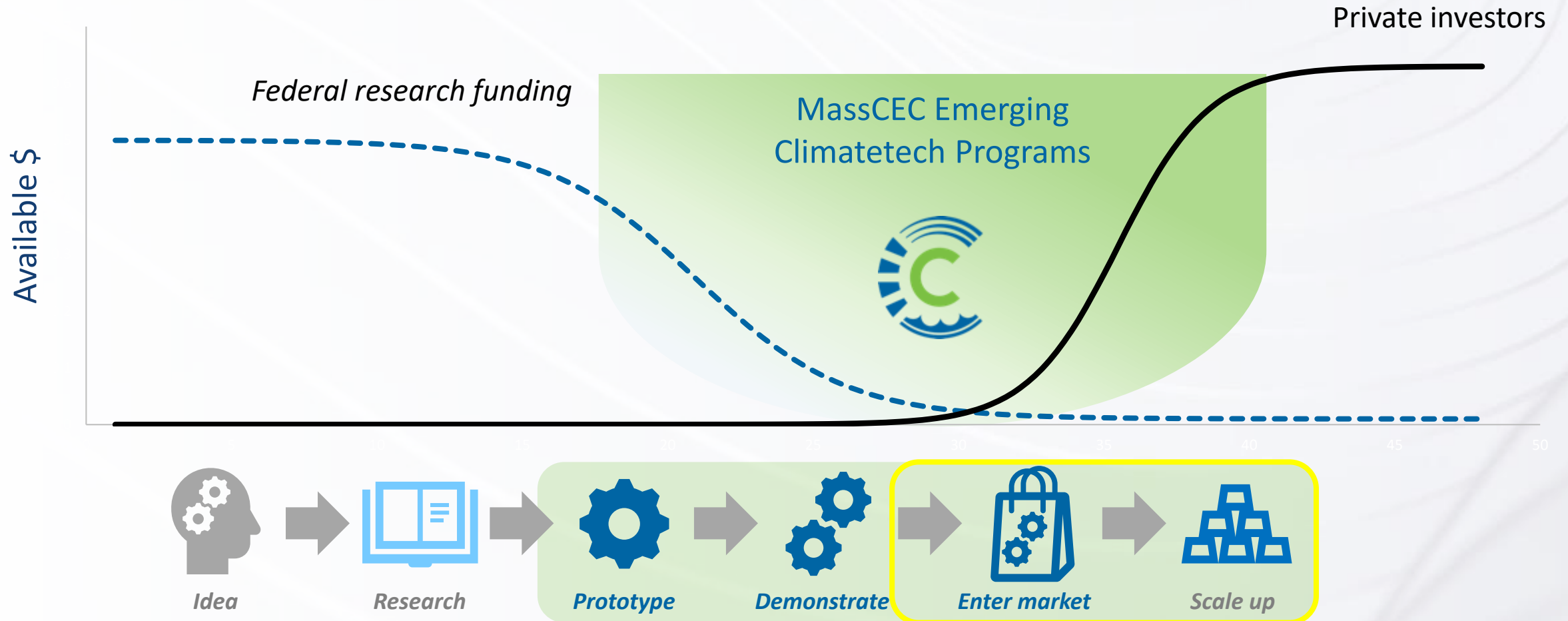
Growth-stage climatetech startups face distinct challenges, including significant capital needs, regulatory complexity, and customer adoption barriers, as they scale from pilot projects to commercial deployments. Sustained support is critical—without it, startups struggle to penetrate markets and build the financial momentum required for lasting success.

CriticalMass

CriticalMass builds on the momentum of MassCEC's legacy Tech-to-Market programs by providing funding, and specialized support services—including access to scaling partners—to support climatetech startups as they expand from pilot projects to commercial deployments.



CriticalMass Strategy: Fill the Funding Gap



CriticalMass

Scaling climate technologies & accelerating commercialization

Support



- Up to \$1,000,000
- Support Service Advisor & Entrepreneur in Residence
- Webinars and events
- Matchmaking with Deployment Partners

Timing



- Annual solicitation
- New program, first round Summer 2025

Eligibility



- US-based startups with MA-based projects
- TRL 8+; 25% cost-share
- Funds Raised \$4M - \$25M (Encouraged)
- Between 10-50 Employees (Encouraged)
- High ARL (Encouraged)
- Already completed a pilot project

Partner Matchmaking

Competitive Two-Step
Application Review Process

Grant Funding

Project Partners

- ❑ 24 project partners have been onboarded to the CriticalMass program and are included in the [RFP Appendix](#)
 - Project Partners include entities such as corporates, municipalities, utilities, universities, state agencies and more.
 - The Appendix includes problem statements and interested technology areas for each project partner.
- ❑ Startups will have the chance to submit a concept paper to Project Partners of interest and to meet with them.
 - Startups and Project Partners will decide after meeting if a full application will be submitted to the CriticalMass Program.
- ❑ Applicants have the option to apply with a Project Partner that is not included in the Appendix if preferred.
- ❑ A Letter of Commitment will be needed from any Project Partner.



Timeline

Event	Date
2025 Application Period Opens	July 2, 2025
Formal Questions Due	July 30, 2025
Concept Papers to Project Partners Due	August 20, 2025
2025 Application Period Closes	September 22, 2025
Finalist Pitch Day	November 6, 2025
Award Notifications	December 2025
Contracting Completion	February 2026
First Milestone Due	Later Winter/Early Spring 2026

* Approximate dates, subject to change

How to Apply



☐ Review RFP

- Option 1.

- ☐ Draft & Submit Concept Paper to Project Partners of interest featured in RFP Appendix by [8/20/25]

- ☐ Cc criticalmass@masscec.com on concept paper submissions

- ☐ Submit Full Application to criticalmass@masscec.com by [9/22/25]

- Option 2.

- ☐ Bring Your Own Project Partner

- ☐ No Concept Paper Required

- ☐ Submit Full Application to criticalmass@masscec.com by [9/22/25]

Application Checklist

- ☐ Application & Signature Form
- ☐ Project Workplan Draft
- ☐ Letters of Commitment
- ☐ TRL Calculation
- ☐ Resumes of Lead Applicant Team
- ☐ Previous Pilot Project Case Studies



Contracting

- ❑ CriticalMass Awardees Must Sign a Grant Agreement
 - (sample agreement found in RFP)
- The Agreement includes the following Attachments
 - Finalized Project Workplan
 - Metrics Collection Template
 - Cost Share Certification Form
 - ACH Enrollment
 - Warrant Agreement



Contracting

❑ Awardees Must Commit to Cost Share and Budget Terms

- In-Kind Cost Share
- Cash Cost Share
- Allowable Expenses



Contracting

❑ Warrants

- This will give MassCEC the right, but not the obligation, to purchase a specified number of the startup's shares at a fixed price in the future, if MassCEC chooses to exercise the warrant.
- Awardees will execute a Grant Agreement & Warrant Coverage Agreement.
 - Samples in the RFP
- MassCEC obtains 10% of the grant in warrants for common stock.
- Grantee's price per share determined by most recent equity financing or 409A valuation.
- Term of the Warrant Agreement will be 7 years from the date of execution.



CriticalMass Program Overview

Questions?

*Deadline to submit questions to
criticalmass@masscec.com: July 31, 2025*

Appendix



Other MassCEC Programs

Investments: The 2030 Fund

Start-up Benefits

- Able to invest countercyclically with founder friendly terms
- Value-add with other MassCEC programming (Grants, Workforce Development, Internship Funding)
- Connections to both government and private funding and resources
- Extensive co-investor network
- Follow-on capital through Series A, then handoff to later stage investors
- Business Development assistance



\$50M
Total Fund Size

\$200K-\$600K
Typical First Check Size
with Follow-ons up to
\$1.5M total

How We Create Value*

High Impact
Sustainable
Cost-Effective



62M+
Metric Tons
CO2e Avoided



500+
Jobs Created



\$1.3B
Leveraged
Capital

Investment Thesis

Stage

- Pre-Seed, Seed, A Rounds

Technology

- Mitigation
- Adaptation
- Resilience



Seeking funding? Contact us at
invest@masscec.com

[MassCEC portfolio page](#)

Business Development: Business Front Door

What is Business Front Door (BFD)?

BFD is an EOED-led initiative that streamlines the process of MA businesses identifying which state-funded grants, tax credits, and other financial programs they may be eligible for.

MassCEC partners with EOED to provide this navigation support to all MA climatetech companies.

More to know...

MassCEC and partnering Team MA agencies offer financial programs in the following areas.

- R&D
- Commercial deployment
- Facility acquisition & upgrades
- Equipment purchasing
- Workforce development

How to access

<https://www.mass.gov/business-front-door>



Business Development: Climatetech Concierge

What is Climatetech Concierge?

Climatetech Concierge is MassCEC's white-glove commercialization support service. We help identify and make introductions to key commercialization partners for MA climatetech companies.

More to know...

Climatetech Concierge makes introductions to partners within the following themes along the path to commercialization.

- Deployment (pilots, demonstrations, offtakers, etc)
- Financing (equity, lending, insurance, etc)
- Site selection
- Manufacturing

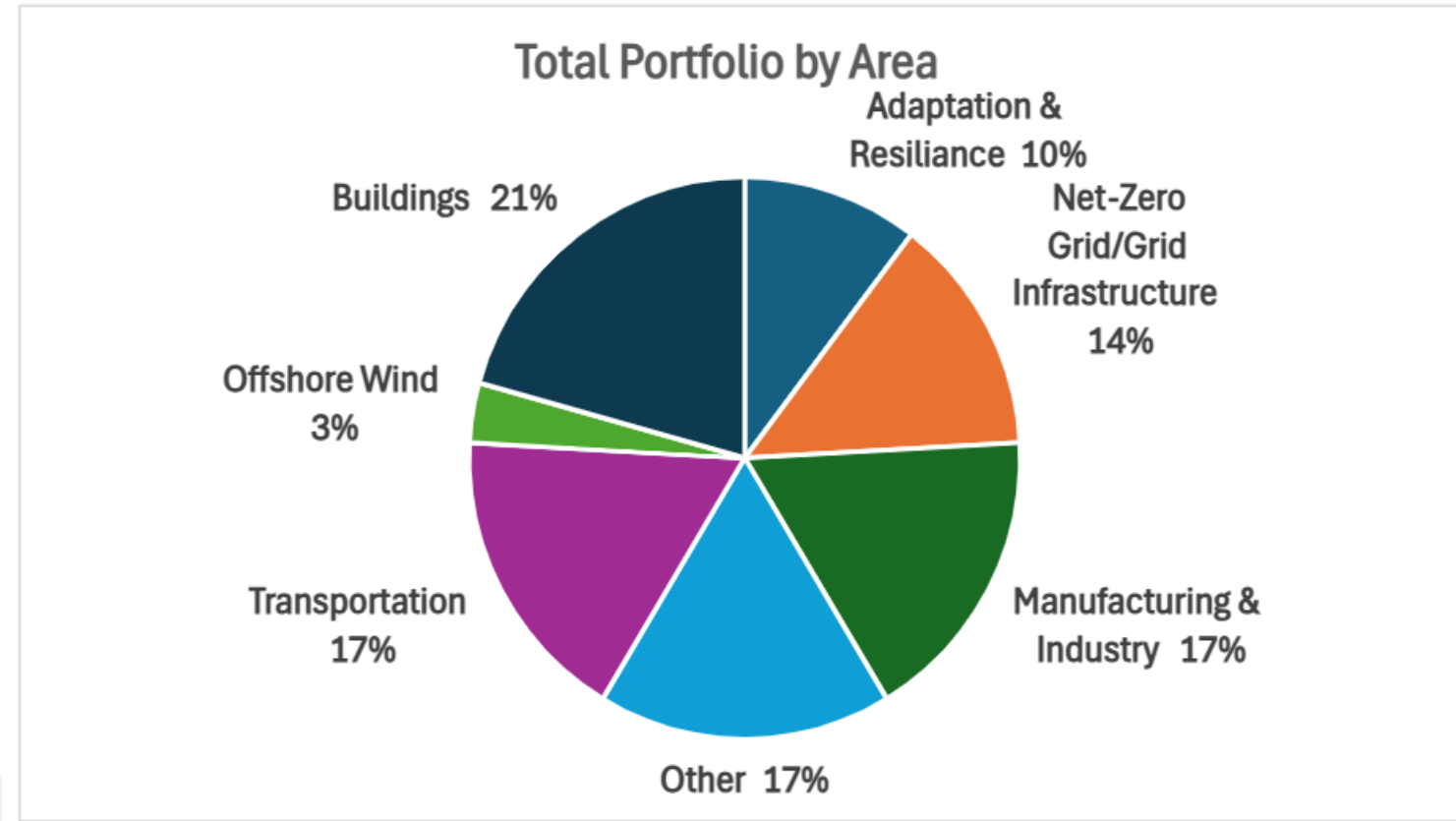
How to access

Email MassCEC Business Development at bizdev@masscec.com to book an introductory call.



Investments: 2030 Fund Portfolio

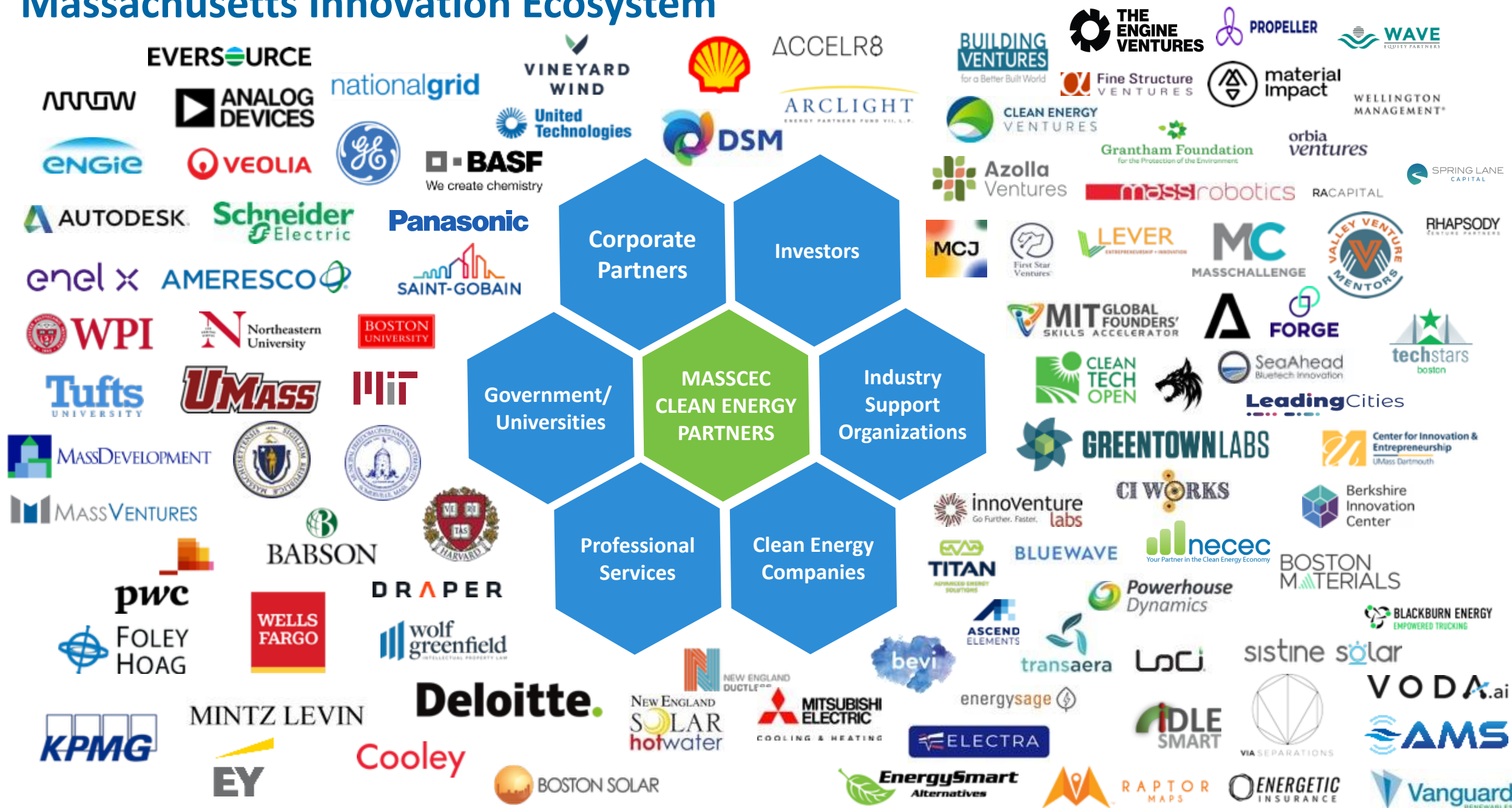
- As of Q1'CY25, the portfolio consists of 29 Companies in 7 Climatetech Sectors
 - Includes 8 investments made prior to launch of 2030 Fund
- **Since 2014, \$21.8M capital deployed of which \$15.2M recouped**
 - 10 Yr. Return¹ 12.3% in line with Early-Stage Venture Capital Average Return of 13.21%²



Notes:

1. Note: Return refers to the Internal rate of return (IRR) and reflects the annualized percent return an investor's portfolio company or fund has earned
2. Source- Pitchbook Data: Filtered for Fund Size 0-99M; Type Early Stage; Location: United States

Massachusetts Innovation Ecosystem



MassCEC's Clean Energy Internship Program

Paid internship opportunities for college students at Massachusetts-based clean energy companies

- Students and Employers apply via www.masscec.com/user/login
- 3 sessions per year. Usually opens ~2 months before start date.
 - Spring (January-May)
 - Summer (May-August)
 - Fall (September-December)
- Companies may host up to 3* interns per session if one is a community college student
- Spots reserved for students & companies located in Gateway Cities
- Employers reimbursed for 12 weeks of an intern's work at the host company
- MassCEC reimburses employers at the conclusion of the session. Cap is \$4,320/intern (spring/fall) \$8,640/intern (summer)



SUCCESS TO DATE*

- Placed over **7,000 interns** at **700+ companies** since 2011
- Over **1,100 students** have gained full or part-time employment at their host companies
- Around **270 companies** and over **2,500 students** applied for the summer 2025 session
- Overwhelming participant satisfaction with the program to-date
- International students are eligible to participate.

Support from MassCEC Decarbonization Teams

Sector specific decarbonization teams at MassCEC can lend their domain expertise and activate their networks.



High Performance Buildings

MassCEC accelerates the most impactful, resilient, and cost-effective electrification technologies and approaches to decarbonizing the building sector



Net Zero Grid

MassCEC supports technologies that enable a transition to a modernized and smarter grid, innovative business models, and market development policies for delivering resiliency, risk management, and clean energy.



Clean Transportation

MassCEC fosters cutting-edge clean transportation technologies, enables new finance and business models for electric vehicle deployment, and accelerates the growth of clean transportation companies in MA.

MassCEC Offshore Wind Team

Reduce project risk, increase market confidence, and support the economic development and workforce opportunities of the offshore wind sector

PLANNING AND ANALYSIS

Address identified gaps and needs through the support of technical studies, planning processes, projects and stakeholder engagement on fisheries, wildlife, wind/ocean conditions, and transmission.

SECTOR DEVELOPMENT

Generate and grow local manufacturing, suppliers, service providers, and infrastructure and develop a well-trained, highly-skilled, safe and diverse workforce.

RESEARCH AND INNOVATION

Support and collaboration to foster technology innovations, advance commercialization, learn from early deployments, and expand offshore energy research.

- Ocean Renewable Energy Innovation Center in New Bedford – ETA 2026

