MACP

MASSACHUSETTS COMPETITIVE PARTNERSHIP

SUPPORTING STARTUPS AND FOSTERING GROWTH

RECOMMENDATIONS FOR A STRONG MASSACHUSETTS ENTREPRENEURIAL ECOSYSTEM





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Table of Contents

INTRODUCTION	3
FUNDING	6
COMMERCIALIZATION & PROCUREMENT	10
ECOSYSTEM DEVELOPMENT	15
TALENT	21
BRANDING & MARKETING (CHALLENGE, CONVENE, CELEBRATE, & CAMPAIGN)	27
CONCLUSION	32

Introduction

Massachusetts has a long history of innovation and entrepreneurship, with a strong academic and research base and a thriving startup ecosystem. A few examples include:

- Massachusetts attracted \$30.6 billion in venture capital investments in 2021 —the
 third highest in the country (behind California and New York), and the highest per
 capita (\$4,353 per person in annual startup funding), according to Crunchbase.
 - o Massachusetts VC investment grew 88.3% from 2015-2020.
- According to the <u>MassTech Innovation Index</u>, Massachusetts has placed 2nd among leading technology states in numbers of IPOs held every year since 2013.
- Massachusetts attracts <u>more Research & Development investment</u> (\$36B in 2018) than any state aside from California.
- Alumni of MIT have launched 30,200 companies, employing 4.6 million people, and generating roughly \$1.9 trillion in annual revenues (as of 2014).
- The Commonwealth ranked 2nd best on <u>WalletHub's</u> 2023 Most Innovative States Index.
- Massachusetts is one of the leading producers of patents per capita, with 1,275 utility patents per million residents in 2020.

However, in today's rapidly changing and competitive global economy, it is more crucial than ever for Massachusetts to prioritize and actively support entrepreneurs in order to cultivate a strong innovation ecosystem for startups. The rise of technological advancements and digital connectivity has allowed people to be more mobile and choose where they live and work, reducing the importance of physical proximity. This means that talented individuals and innovative companies can now emerge from anywhere in the world, making it imperative for Massachusetts to maintain its position as a leading hub of entrepreneurship.

Furthermore, Massachusetts faces the challenge of other states attracting entrepreneurs, especially particularly lower-cost ones, who are starting to catch up in terms of fostering innovation and supporting startups. Many states have recognized the immense economic benefits of nurturing entrepreneurial endeavors and have begun providing massive incentives to attract companies and startups. To stay ahead, Massachusetts must proactively attract new companies, technologies, and innovations through policies and programs that facilitate business growth.

The state's historical strengths in industries such as technology, life sciences, biotechnology, and healthcare provide a solid foundation for building a robust innovation ecosystem. However, it is essential to continuously adapt and invest in emerging sectors to remain competitive. By supporting entrepreneurs, Massachusetts can stimulate job creation, drive economic growth, and maintain its reputation as a global leader in cutting-edge industries.

New technologies and new businesses are critical for economic growth and job creation. Early stage startups in Massachusetts created <u>5.1 jobs per 1,000 people</u> in 2020, just over the national average. In addition to jobs, startups create new technologies, open <u>additional</u> industries and markets, and <u>drive increased investment</u>.

Moreover, the interconnected nature of today's global economy, and increasing mobility of people and companies, demands that Massachusetts leverage its resources, networks, and expertise to foster collaboration and knowledge exchange. By fostering a vibrant ecosystem of startups, incubators, accelerators, and venture capital firms, the state can facilitate cross-pollination of ideas, encourage collaboration between entrepreneurs, and attract global talent and investment.

Additionally, a strong innovation ecosystem can help address <u>some of the major challenges</u> <u>facing society today</u>. With more <u>agility</u>, startups can focus on developing innovative solutions to complex problems such as climate change, healthcare, mobility, and education. By supporting entrepreneurs and positioning the state as a leader in these industries, Massachusetts can help drive innovation in these areas and create new solutions that can have a positive impact not only in the Commonwealth, but throughout the world.

As other states and countries invest in innovation and entrepreneurship, it is important for Massachusetts to remain competitive and continue to attract the best talent and companies from around the world. The state's concentration of assets —world class academic and research institutions, investors, and committed entrepreneur support organizations—provides a distinct advantage. By creating a strong innovation ecosystem, Massachusetts can position itself as a global leader in innovation and entrepreneurship, which can have significant long-term economic benefits, including the creation of better jobs for the state's residents, the generation of more taxes to support public services, the expansion of markets for existing businesses, and the increased development of technological breakthroughs and discoveries.

The Massachusetts Competitive Partnership (MACP) has convened a table and extended the discussion with local accelerators, incubators, and entrepreneur support organizations to review the state of the Massachusetts entrepreneurship ecosystem and brainstorm what policies, programs, or interventions could best support it. Through these conversations, as well as our previous work and additional research, MACP has developed the following set of recommendations for state leadership, including the Healey-Driscoll Administration and the Massachusetts legislature, to consider.

1. Funding

- Form a pool of matching funds to support companies or sectors pursuing federal grant dollars and provide technical assistance in applying to funding opportunities.
- b. Design incentive packages, including tax credits and infrastructure grants, to better leverage the influx of federal funding and encourage companies to locate their research, testing, and manufacturing facilities in Massachusetts.
- c. Create flexible funding to provide startups with the tools to fill funding gaps and access necessary capital to grow.
- d. Offer refundable tax credits to entrepreneurs to increase investment and provide flexibility through the option of converting to cash.
- e. Provide angel investor tax credits to incentivize increased financing in particular industries and overall.

f. Offer targeted tax credits to institutional investors to stimulate and direct investment to underrepresented entrepreneurs, particular regions of the state, or specific industries.

2. Commercialization & Procurement

- a. Enable better public-private innovation by reforming procurement laws to allow for piloting and evaluation of new technologies and practices.
- b. Utilize state purchasing power to leverage economies of scale and support regional supply chain growth to accelerate new technology, particularly in emerging industries like clean energy.
- c. Create deployment and piloting opportunities that enable entrepreneurs to bring their technologies and products to commercialization.
- d. Reform permitting, siting, and interconnection processes to better enable new technology deployment.
- e. Support and encourage tech transfer out of local colleges and universities.

3. Ecosystem Development

- a. Develop regional industry expansion plans for the state and support related placemaking efforts to build industry clusters or corridors.
- b. Create a guide for municipalities on how to attract and support entrepreneurs to their communities, including recommendations for how to expedite permitting and leverage existing resources.
- c. Invest in buildings in numerous regions of the state that could be home to startups at various stages of business maturity, while seeding growing businesses in places that could benefit from economic growth.
- d. Establish an "Entrepreneurship & Innovation Council" to implement or assist with the above recommendations, advise on policies impacting future growth, and oversee additional initiatives to support the ecosystem.
- e. Promote sector-specific innovation hubs to convene and concentrate resources, and leverage existing strengths in life science, biotechnology, and healthcare.
- f. Set up a one-stop startup resource and advisory center to help entrepreneurs navigate starting a business in Massachusetts.

4. Talent

- a. Organize industry-specific internship, apprenticeship, and fellowship programs to provide startups and industry with labor and create a pipeline to retain students in Massachusetts with careers in in-demand fields.
- b. Expand workforce training programs and opportunities, specifically at community colleges, that are geared towards potential entrepreneurs or employees for startups and small businesses.
- c. Encourage more plentiful entrepreneurship programming at colleges and universities.
- d. Attract international entrepreneurs and ease the pathway to immigration into the United States.
- e. Focus intentional efforts on supporting entrepreneurs from underrepresented groups.

5. Branding & Marketing (Challenge, Convene, Celebrate, & Campaign)

- a. Organize competitions to both reward existing entrepreneurs and encourage others to join their ranks.
- b. Work with industry cluster leaders to convene forums that attract the regional, national, and international entrepreneurship community.
- c. Celebrate the accomplishments of entrepreneurs.
- d. Create marketing campaigns that continue to promote Massachusetts as a leading "thinking and doing" place.

Funding

Access to funding and the ability to quickly raise capital is essential for entrepreneurs to establish their businesses and grow them to scale. Access to capital can enable startups to make strategic investments in areas like hiring talented staff, improving product quality, and expanding into new markets. The backing of investors and other financial supporters can provide startups with the credibility and resources needed to attract further investment, new customers, and strategic partnerships. Ultimately, capital, and especially early funding, can be a game-changer for startups looking to scale quickly and establish themselves as a major player in their industry.

Raising funding and finding access to capital can be extremely challenging for startups. This past year was particularly challenging due to interest rate hikes and a plummeting IPO market. Even under ideal conditions, the majority (90%) of startups fail —and 20% fail within their first year of operation, making it difficult for investors to justify investing in early-stage companies. In fact, according to a CB Insights study, 38% of startup failures over the last five years were due to a lack of financing and/or entrepreneurs running out of funding.

Massachusetts-based investors, to their credit and detriment, have <u>a reputation</u> for only making "safe" investments —which does help to minimize risk, but also leads many early stage companies to <u>move elsewhere</u> in order to secure funding and additional support. The following recommendations outline several strategies the Commonwealth could employ to support startups in accessing funds.

Form a pool of matching funds to support companies or sectors pursuing federal grant dollars and provide technical assistance in applying to funding opportunities.

Federal grant dollars can be an important source of funding for startups, but the application process can be time-consuming and difficult to navigate. By creating a pool of funding for matches, startups can receive additional support in pursuing federal grant dollars and increase their chances of success.

Two major sources of federal funding for startups are the Small Business Innovation Research (SBIR) program and Small Business Technology Transfer (STTR) program; the SBIR program provides funding for small businesses to conduct R&D with the potential for commercialization, while the STTR does the same but also requires a partnership between a

small business and a research institution, such as a university or a federal laboratory. Massachusetts is one of the leading states in receiving funds for SBIR and STTR grants. In 2021, Massachusetts received 411 Phase I grants with grant obligations totaling \$81 million and was awarded 269 Phase II grants totaling about \$358 million. This was second to California, which in the same year was awarded 928 Phase I grants totaling \$174 million, and Phase 481 II grants totaling \$629 million.

<u>Several states</u> across the country have state matching programs for SBIR and STTR grants. In Massachusetts, the Massachusetts Life Sciences Center (MLSC) offers a matching grant program for early-stage life science companies pursuing federal Small Business Technology Transfer (STTR) grants. Likewise, MassVentures runs the <u>START program</u> which offers Massachusetts-based SBIR Phase II companies grants and business guidance to help them commercialize their technologies.

As policy makers and government leaders consider the role the state could take in investing in its innovation economy, the Commonwealth could consider providing more and higher matches for existing programs, additional matching fund programs, and additional supports for entrepreneurs in the process of applying for competitive federal grants. The match dollars invested would bring more funding into the state, creating more jobs and generating additional tax revenues as a result. This would help to grow the overall ecosystem in addition to supporting the directly impacted startups.

Design incentive packages, including tax credits and infrastructure grants, to better leverage the influx of federal funding and encourage companies to locate their research, testing, and manufacturing facilities in Massachusetts.

With increased federal funding available for research, development, and infrastructure projects, Massachusetts can enhance the impact of these funds by offering complementary incentive packages. By providing tax credits and grants, the state can encourage companies to leverage federal support and invest in Massachusetts, amplifying the economic benefits and creating a multiplier effect.

Offering competitive incentive packages can make Massachusetts a more attractive location for companies to establish their research, testing, and manufacturing facilities. By providing tax credits and infrastructure grants, the state can alleviate some of the financial burdens associated with setting up or expanding operations. This, in turn, can help attract businesses that might otherwise choose other states that offer more enticing incentives. Proximity to research institutions, academic centers, and a skilled workforce in Massachusetts offer considerable advantages for companies seeking to engage in research and development activities, but those advantages alone may not always outweigh the additional costs.

Many states have successfully implemented incentive packages to attract companies and stimulate economic growth. For example, Texas has implemented the Texas Enterprise Fund, which provides financial incentives, including grants and tax credits, to companies that create jobs and invest in the state. Likewise, the <u>California Competes Tax Credit</u> offers refundable

tax credits to businesses that relocate to or expand in California, based on factors such as job creation, capital investment, and strategic importance to the state or region.

Massachusetts can learn from these examples and tailor incentive packages that align with the Commonwealth's unique strengths and economic development goals. It is crucial for the state to adapt and evolve its policies to remain competitive and capitalize on the opportunities presented by historic levels of federal funding.

Create flexible funding to provide startups with the tools to fill funding gaps and access necessary capital to grow.

State governments are increasingly recognizing the importance of startups and are making efforts to provide them with flexible funding opportunities. One such effort is the creation of state-sponsored venture capital funds. These funds provide early-stage startups with the capital they need to get off the ground, and can also help attract additional private investment. Massachusetts has a long history of providing venture capital support – the quasi-public MassVentures, formerly Massachusetts Technology Development Corporation (MTDC), was established in 1978, when venture capital was still a new industry. Today, MassVentures reports that its investment and grant companies have leveraged "over \$3 billion in follow-on capital in the last 5 years and employ approximately 10,000 workers in Massachusetts."

Colorado's <u>Venture Capital Authority (VCA)</u> supports access to venture capital for Colorado's entrepreneurs and startup businesses. The VCA is a political subdivision of the state and a "Special Purpose Authority." Authorized with \$45 million in funding in 2004, it has since seen a return and is currently active in four funds focused on 1) overlooked early-stage startups in rural Colorado, 2) founder-driven businesses and seed-stage investments in Colorado's technology sector, 3) startups and scale-ups owned and operated by business leaders of color (particularly in industries such as information technology, advanced manufacturing, food and agribusiness, biosciences, health/beauty/wellness, tourism, and aerospace) and, 4) Colorado-based seed-stage startups that address climate change and inequity.

Overall, state-sponsored capital funds have been successful in providing startups with flexible funding options and helping to bridge the funding gap that many early-stage companies face. These funds have also been successful in attracting additional private investment, creating jobs, and contributing to the overall economic growth of the states in which they operate. By providing capital to startups, state-sponsored capital funds can help support the development of new technologies and industries, and can contribute to the creation of a more vibrant and diverse startup ecosystem.

Offer refundable tax credits to entrepreneurs to increase investment and provide flexibility through the option of converting to cash.

The Commonwealth should also consider offering tax credits to entrepreneurs directly. By offering refundable tax credits to startup founders, Massachusetts can alleviate the financial burden faced by entrepreneurs, allowing them to invest more in their ventures and fuel their

In 2019, the Business Roundtable released an "Innovation Nation" agenda for 2020. The key principles, listed below, are explored as recommendations for the federal government, but are also important to implement at the state level.

- 1. Invest in people.
- 2. Make strategic, long-term investments in science and technology.
- 3. Remove roadblocks to innovation (regulations).
- 4. Position America to compete and thrive worldwide.
- 5. Pursue inclusive innovation.

growth. This mechanism would enable entrepreneurs to access capital in the form of cash, even when they are not yet generating profits to directly utilize the tax credits.

Refundable tax credits for entrepreneurs have the potential to attract and retain top talent in Massachusetts. Entrepreneurs often face tough decisions about where to establish their businesses, and offering such incentives can make a significant difference. By providing entrepreneurs with access to cash through refundable tax credits, Massachusetts would demonstrate its commitment to supporting their growth and success, making it an attractive destination for startups, and fostering a thriving innovation ecosystem.

An example to consider is New York's Excelsior Jobs Program, which provides tax credits to businesses in targeted industries, including technology, life sciences, and clean energy. The program includes refundable tax credits for job

creation and investment.

Provide angel investor tax credits to incentivize increased financing in particular industries and overall.

Another strategy to encourage investment is to provide tax credits for investors who support startups. A number of states provide tax credits to angel investors and venture capitalists who invest in startups in certain industries or geographic areas. These tax incentives can help mitigate the risk associated with investing in startups, making it more attractive for investors to support early-stage companies that could especially leverage that investment for more funding and to prove their concept. Maryland offers both biotechnology and cybersecurity investment tax credits, providing a competitive advantage to investors in two industries in which Massachusetts is actively looking to lead.

Massachusetts offers an angel tax credit in life sciences, <u>overseen by the MLSC</u>, for investments in early-stage companies engaged in life sciences research and development, commercialization, and manufacturing in Massachusetts. <u>In 2020</u>, 39 angel investors made \$4.3M qualifying investment to 19 companies in Massachusetts; and of those, 10 investors received credits for investments located in a gateway city (Lowell and Worcester).

As the state considers its position in emerging industries, it may want to explore the creation of angel investor tax credits in sectors such as Clean Tech, Mobility, or AI.

Offer targeted tax credits to institutional investors to stimulate and direct investment to underrepresented entrepreneurs, particular regions of the state, or specific industries.

Massachusetts can make targeted tax credits available to institutional investors to encourage increased investment overall. Specifically, there should be an effort to incentivize investment in entrepreneurs from underrepresented groups or in targeted industries or regions. By mitigating risk, tax credits serve as a powerful tool to attract financial institutions and spur greater capital infusion into the entrepreneurial ecosystem. Moreover, by tailoring tax credits to encourage investment in entrepreneurs from underrepresented groups or in targeted industries, the state can foster greater diversity, innovation, and economic inclusion.

Providing incentives specifically aimed at underrepresented entrepreneurs helps to address the funding gap that often hinders their access to capital. By leveling the playing field and facilitating financial support, the state empowers entrepreneurs from these groups to launch and scale their businesses, contributing to a more equitable entrepreneurial landscape.

To better encourage investment in different regions of the state, tax credits could be offered depending on the location of the startups where a financial institution is placing its investments.

In 2021, MassMutual (an MACP member) announced the creation of its MM Catalyst Fund LLC (MMCF), a \$50 million investment commitment earmarked for businesses across Massachusetts. The MM Catalyst Fund is comprised of "a \$25 million community growth sleeve ("MMCF Growth") to target equity and debt investments in Black-owned, founded or managed businesses across Massachusetts, including in Boston;" and "a \$25 million technology sleeve ("MMCF Tech") to target equity investments in Massachusetts technology companies based outside Boston." Targeted tax credits could encourage other financial institutions to create similar commitments.

Additionally, incentivizing investment in targeted industries allows the state to strategically promote sectors that align with its economic development goals, such as renewable energy, biotechnology, or advanced manufacturing. This approach not only attracts investment but also positions the state as a leader in these industries, driving technological advancements, job opportunities, and long-term economic growth.

Commercialization & Procurement

In order to bring a product or service to market, a startup needs to test it —and many startups find it challenging to convince established organizations or institutions to take a chance on an unproven entity. The Massachusetts government can play a role in supporting startups by easing access to and facilitating partnerships with the public sector to provide opportunities for piloting and demonstrations. By making it easier for startups to partner with public agencies and compete for government contracts, Massachusetts could promote innovation and drive economic growth.

Many technologies are also developed within the state's world class universities, but researchers need support to adapt them to real-world uses. Stronger connections between

the public sector, private sector, and universities are critical to commercializing that technology and leveraging the Commonwealth's research institutions.

Enable better public-private innovation by reforming procurement laws to allow for piloting and evaluation of new technologies and practices.

Massachusetts should consider easing procurement rules to allow for startups to partner with the state for testing and demonstrations. Many entrepreneur support organizations

have identified opportunities to test technology as a major need for the startups they serve.

Massachusetts could design pilot programs for startups to test their technologies in real-world settings in partnership with cities and towns. This program would provide startups with the support and resources they need to develop, prove, and refine their products, while also ensuring that public agencies are able to evaluate the effectiveness of these technologies. This would allow startups to gain valuable experience and exposure, while public agencies would be able to benefit from innovative solutions to pressing public needs.

An example to consider is the Michigan Mobility Funding Platform (MMFP), which is run out of the Office of Future Mobility and Electrification and the Michigan Department of Transportation. The MMFP provides grants to mobility and electrification companies looking to deploy their technology solutions in the state of Michigan. This allows for applicants to apply for funding

The Governing Institute's national survey of state procurement officials found five overarching trends that are reshaping procurement operations:

- 1. Data and analytics are driving all phases of the procurement process.
- 2. States are becoming more mature in applying best-value strategies.
- 3. Solution-based contracts are delivering more responsive engagements.
- 4. Procurement offices are forging closer relationships with vendors.
- 5. New types of contracting vehicles are boosting acquisition effectiveness.

for either testing site or real-world deployment opportunities. The platform was launched in 2021 and previous testing site deployments "have ranged from \$10K - \$100K and real world deployments have ranged from \$40K - \$125K."

Utilize state purchasing power to leverage economies of scale and support regional supply chain growth to accelerate new technology, particularly in emerging industries like clean energy.

When competing with more established companies, startups can be at a distinct disadvantage. While many startups have innovative solutions to offer, they are often shut out of government contracts due to onerous procurement requirements that favor larger, more established firms. Massachusetts should provide more opportunity for startups to compete for public contracts. This could be implemented through streamlined procurement processes

that are designed specifically for startups. For example, the state could create fast-track procurement processes for smaller contracts or implement simplified bidding requirements that make it easier for startups to participate in the procurement process.

Potential procurement reforms can be found in examples from other states. A <u>2019 survey</u> of senior procurement officials from across the country found key trends and leading practices. It ranked Massachusetts as the #3 leading state for procurement, behind Michigan, which boasts a comprehensive Contract Monitoring Plan, and Georgia, which uses an innovative public, open-ended application process to continually refresh commonly-used contractor pools.

Massachusetts recognizes the importance of supporting small businesses by offering the Small Business Purchasing Program (SBPP) which, among other benefits, gives participants special consideration in bid/quote evaluation for contracts under \$250,000 per year. In October, New York passed a law that will allow for New York City to increase its threshold limit of city contracts that can utilize the city's Minority-and-Women-Owned Business Enterprises (M/WBE) non-competitive procurement method from \$500,000 to \$1,000,000. This kind of action signals a commitment to supporting MWBEs by allowing the city to increase its spend with such companies, and leveling the playing field. Massachusetts may want to consider increasing its small business threshold, or specifically addressing purchasing with high-growth startups that offer goods and services that would exceed a traditional small business.

By acting as a customer and leveraging economies of scale, the state can drive market demand, accelerate technology adoption, and stimulate regional supply chain growth.

This will be especially impactful in the clean energy industry. Utilizing state purchasing power to support clean energy technology aligns with Massachusetts' climate goals and commitment to sustainability. By procuring innovative solutions, the government can drive the transition to clean energy, reduce greenhouse gas emissions, and contribute to a more sustainable future. This approach reinforces the state's position as a leader in clean energy and enhances its reputation as an attractive destination for startups and investors in the sector.

Create deployment and piloting opportunities that enable entrepreneurs to bring their technologies and products to commercialization.

Many promising technologies and products face challenges in transitioning from the research and development phase to commercialization. By creating deployment and piloting opportunities, Massachusetts can bridge this commercialization gap. These initiatives would provide entrepreneurs with real-world testing and validation platforms, enabling them to refine their offerings, gather data, and demonstrate their technology's viability to potential investors and customers. By providing platforms for entrepreneurs to deploy and pilot their technologies, Massachusetts can showcase its support for innovation and create an environment that attracts both financial and human capital.

Massachusetts can create innovation sandboxes or testbeds where entrepreneurs can deploy and pilot their technologies in a controlled and supportive environment. These sandboxes can be physical spaces, research facilities, or partnerships with existing industry, government, and academic institutions (such as the <u>Digital Health Sandbox Program</u> administered by the Massachusetts eHealth Institute at MassTech) By providing access to infrastructure, resources, and expertise, entrepreneurs can conduct real-world tests, gather data, and validate their technologies.

Likewise, more physical spaces will be necessary for emerging industries such as mobility and clean tech. Opportunities have been discussed, but not acted upon, at Devens and at the former Naval Air Station in South Weymouth to allow for mobility entrepreneur testing. While some sporadic efforts have taken place, a coordinated and thoughtful effort could make a significant impact.

A model that Massachusetts may want to consider is the Newlab in New York and Michigan. Newlab describes its mission as accelerating "the development, scale, and adoption of the critical technologies required to decarbonize the global economy and improve societal outcomes." Its New York location is at the Brooklyn Navy Yard, and provides space for startups in robotics, artificial intelligence, connected devices, and smart infrastructure. In Michigan, Ford Motor Company invested \$950 million for Newlab to build out the old Michigan Central Station and surrounding 30-acres, which offers "a living lab environment, a reduced regulatory environment, and a dedicated transportation innovation zone." Across both locations, totaling 500,000 square feet, Newlab has supported "200+ member companies in raising over \$2B in capital from 260 venture capital firms, with over \$1.5B of successful exits and a collective valuation of over \$5B."

To support testing, Massachusetts could also develop funding programs specifically designed to support deployment and piloting activities. These programs can provide grants, loans, or subsidies to entrepreneurs, helping cover the costs associated with testing, deployment, and initial commercialization. Funding opportunities should be accessible to a wide range of entrepreneurs, including those from underrepresented communities, to foster diversity and inclusion within the innovation ecosystem.

Reform permitting, siting, and interconnection processes to better enable new technology deployment.

Outdated or cumbersome regulatory processes can create barriers, delays, and increased costs for entrepreneurs and innovators, hindering the adoption and deployment of new technologies. Massachusetts should aim to streamline the permitting, siting, and interconnection processes to reduce the time it takes for entrepreneurs to gain approvals and move forward with their projects. Simplifying and clarifying regulations, minimizing paperwork, and establishing clear timelines can help reduce bureaucracy and improve the efficiency of the processes. This would enable entrepreneurs to deploy their technologies faster and with fewer administrative hurdles.

For example, permitting reform is essential to be competitive in industries like clean tech and in the promotion of clean energy. Reform to clean energy permitting is necessary to speed up the pace of integrating new environmental policy, such as the Inflation Reduction Act (IRA), into law, and while there is no anticipated timeline for permitting reform at the federal level, some states are taking their own approach to permitting reform. The Healey-Driscoll Administration recently launched the Commission on Clean Energy Infrastructure Siting and Permitting (CEISP) to work on reducing permitting timelines, providing communities' input in the siting and permitting of clean energy infrastructure, and ensuring that the benefits of a clean energy transition are shared equitably. This is an important step in the right direction. Examples from other states include:

- New York passed the 'Accelerated Renewable Energy Growth and Community Benefit
 Act' as a part of their 2021 state budget. This bill created the Office of Renewable
 Siting (ORES) which is the <u>nation's first dedicated office</u> for siting renewable energy
 projects.
- <u>California</u> also used their 2022 budget process to pass AB205, a bill containing energy-related reform issues. This bill gives the California Energy Commission the authority for a consolidated permitting process that replaces all state and local requirements.

Massachusetts should consider establishing cross-agency coordination mechanisms, such as interagency task forces or streamlined review processes, to help facilitate efficient decision-making and eliminate redundant or conflicting requirements. Collaboration with local communities, industry experts, and relevant stakeholders can also ensure that concerns are addressed while expediting the deployment of new technologies.

Finally, Massachusetts should implement a system for continuous monitoring and evaluation of any reformed processes. By monitoring the implementation and impact of the reforms, the state can identify areas for improvement, address any unforeseen challenges, and adapt the processes to evolving technologies and market needs. This iterative approach allows for ongoing optimization and ensures that the regulatory framework remains responsive and supportive of new technology deployment.

Support and encourage tech transfer out of local colleges and universities.

Massachusetts is home to some of the world's most renowned universities —institutions that create jobs, attract investment, and educate a skilled and talented workforce. A few examples of entrepreneurship-focused programming include:

- <u>MIT's Office of Innovation</u> lists over 50 entrepreneurship programs as a resource.
- <u>Harvard's innovation labs</u> have hosted 4,700+ founders over the last 10 years who have gone on to raise over \$4 billion in capital.
- <u>Innovate@BU</u> offers incubator programs, accelerator programs, skills-building fellowships, workshops, funding competitions, grant opportunities, innovation challenges, and more.

- UMass Amherst's <u>Berthiaume Center for Entrepreneurship</u> offers programming and resources for students pursuing entrepreneurship; it hosts <u>Maroon Venture Partners</u> <u>Fund J. LP</u> which is a for-profit venture fund that invests in early stage companies linked to UMass Amherst. Investments range from \$50,000 to \$200,000 and are often a venture's initial outside equity funding.
- WPI's <u>Innovation & Entrepreneurship Center</u> offers skill-based workshops, seed funding, mentorship, innovation challenges, networking opportunities, and hands-on projects.
- <u>Clark University's Innovation and Entrepreneurship program</u> got an Outstanding Student Engagement and Leadership Award in 2021 by the Global Consortium of Entrepreneurship Centers.

Massachusetts is also home to research facilities and laboratories, where scientists and researchers work on cutting-edge technologies and advancements. These institutions have contributed significantly to the state's innovation economy, attracting investors and businesses from all over the world. For example, <u>in FY2022</u>, Harvard attracted \$940 million in research funding to Massachusetts.

Tech transfer is key to moving the new ideas and technologies from academia and research into the commercial market. According to the Massachusetts Technology Transfer Office, run out of MassVentures, the state's research institutions are "some of the most prolific in the country, producing new licenses and spin-outs that reached \$1.48 billion in commercial value from 2018 to 2020." Likewise, in an analysis of technology transfer and commercialization at the state level, Heartland Forward found that Massachusetts and California are the leaders "in possessing institutions that drive economic growth." The report found that Harvard had "the most academic articles cited in industry patents among its peers," MIT had the "best record for invention disclosures," and the University of Massachusetts System (ranked 8th overall public university system) ranked first for "the normalized amount of gross licensing income generated." Boston Children's Hospital (2nd), Massachusetts General Hospital (6th), and Dana Farber Cancer Institute (9th) ranked within the top 10 institutions for research transfer.

The legislature and administration can work with the Massachusetts Technology Transfer Office, which works with the technology transfer offices at Massachusetts' research institutions, to support tech transfer by providing funding and incentives to researchers, as well as facilitating cross sector partnerships between universities, research institutions, and the private sector. By fostering collaboration and knowledge-sharing between these entities, Massachusetts can foster an ecosystem that facilitates the transfer of technology and the development of new products and services. Simply put, a successful strategy should include doing more of what is already working.

Ecosystem Development

Ecosystem development is crucial to the success of entrepreneurship, as it creates an enabling environment that allows startups to thrive and grow. By creating a supportive ecosystem, Massachusetts can help to attract and retain talent, investment, and other resources that are necessary for the success of startups.

The state government can play an important role in developing plans for industry clusters, providing cities and towns with the necessary resources to support those clusters, and investing in physical space to make it all possible.

Develop regional industry expansion plans for the state and support related placemaking efforts to build industry clusters or corridors.

As a state with a strong tradition of innovation and entrepreneurship, Massachusetts has a significant opportunity to further support the growth and development of startups by leveraging the resources of different areas of the state for planned industry clustering. These clusters or corridors can attract talent, investment, and other resources needed for startups to succeed, and coordinate with economic development plans for each of the state's regions.

Too often, cluster development is left to happenstance. Instead of waiting for organic occurrences, the administration and legislature should be more intentional in understanding, prioritizing, and accelerating clusters in which Massachusetts can, and should, compete and win. Cluster development could involve providing financial incentives for startups and support organizations (such as coworking spaces, incubators, and accelerators) to establish a presence in specific regions or by creating partnerships between universities, research institutions, and the private sector to facilitate the transfer of technology and knowledge.

Clusters could be determined by areas that already have a concentration of companies within a certain industry, or by leveraging complementary industries (perhaps putting research near manufacturing, for example). Additionally, it would be important to invest in infrastructure projects that improve transportation, to provide greater access to talent and connection across the state.

While state government leaders should prioritize Massachusetts' innovation ecosystem, sometimes that requires collaborating, rather than competing, with other states. Especially when considering the large challenges that entrepreneurs are looking to develop technologies and solutions for, such as climate change and transportation, it makes sense that sometimes a regional approach will not only be advantageous but necessary.

This might also be a strategy to consider for bolstering certain regions of Massachusetts that could leverage assets in nearby states. For example, a regional partnership could help to build up the "Knowledge Corridor" from Springfield, Massachusetts to New Haven, Connecticut, which is home to numerous educational institutions, research centers, and innovative companies. A partnership with Connecticut to formalize a network and develop a shared strategy could have lasting impact.

By forging partnerships with neighboring states, Massachusetts can tap into a larger pool of resources, expertise, and diverse perspectives, creating a more vibrant and interconnected regional innovation network.

Create a guide for municipalities on how to attract and support entrepreneurs to their communities, including recommendations for how to expedite permitting and leverage existing resources.

Municipalities can play a key role in supporting entrepreneurship by providing resources and support for local startups. The state government could create a guide for municipalities on how to attract and support entrepreneurs, including instructions for expediting permitting and utilizing existing resources. If developed in coordination with a planned cluster strategy, the guide could also provide information to help cities and towns make connections within their regions and across key organizations (including entrepreneur support organizations, community-based organizations, etc.) that would be involved in the cluster development.

Encouraging communities to be proactive will not only benefit those communities in attracting opportunities but will also provide more certainty to entrepreneurs who want to move to or stay in Massachusetts but do not have the bandwidth to navigate the complicated permitting processes. Municipalities could develop the guide into a product for entrepreneurs themselves with clear instructions on how to work with the town and navigate through bureaucratic government processes. Perhaps MassTech, with additional funding from the state, could oversee this initiative in partnership with MassEcon.

Invest in buildings in numerous regions of the state that could be home to startups at various stages of business maturity, while seeding growing businesses in places that could benefit from economic growth.

One of the advantages for early-stage companies that join an incubator or accelerator program is that many of those programs provide space. For early companies with fewer employees, that access to space is critical —not only because they would otherwise be unable to afford space, but also because it also puts them in close proximity to other companies, either in the same industry or facing similar challenges. The opportunity for this kind of networking and relationship building is paramount in building a strong ecosystem. The impact of that access to space and community can be seen in examples such as through LabCentral, which offers a network of fully permitted laboratory and office spaces for as many as 125 start-ups (comprising approximately 1000 scientists and entrepreneurs), further developing the life sciences sector in the state.

As companies grow, they also outgrow the shared office spaces that are currently available. For some, paying for larger office space remains an issue, but even more importantly, losing the sense of community and access to a larger network makes that next step of growth an even bigger challenge. The state government could play a critical role in investing in buildings that could be rented to startups at an affordable price. By focusing on specific industries, these buildings could be constructed to suit particular needs that may be harder to find or afford, such as industrial workshops or lab spaces.

Likewise, in alignment with the above recommendation to plan for industry clusters, locating these buildings in areas that already have a concentration of similar businesses or where

there is planned concentration of a specific industry would be beneficial in building a strong ecosystem. Devens is providing land, but having land with buildings already on it would be even more valuable. Public options already exist, like the Westborough Technology Park, and private possibilities would be promising, like at the Stanley Industrial Park next to the Berkshire Innovation Center in Pittsfield.

Establish an "Entrepreneurship & Innovation Council" to implement or assist with the above recommendations, advise on policies impacting future growth, and oversee additional initiatives to support the ecosystem.

To further cultivate a thriving ecosystem for entrepreneurship and innovation, Massachusetts should consider establishing an Entrepreneurship & Innovation Council. This council would serve as a valuable advisory body, providing expertise and guidance on policies that impact the future growth and development of the entrepreneurial landscape. Its primary objective would be to foster collaboration among key stakeholders, drive strategic initiatives, and advocate for the needs and interests of entrepreneurs and innovators across the state.

The Entrepreneurship & Innovation Council could include representation from various agencies in Massachusetts that play a pivotal role in supporting and promoting entrepreneurship. These entities could include the Massachusetts Technology Collaborative (MassTech), which focuses on driving innovation and technology-driven economic development in the state, and MassVentures, as a venture capital and business development firm, would bring key insight. The Massachusetts Office of Business Development (MOBD) would also be a valuable addition, as it works to attract and retain businesses, creating an enabling environment for entrepreneurial success. Furthermore, the Massachusetts Small Business Development Center (MSBDC) could provide expertise in supporting the growth and development of small businesses and startups. Additional agencies that could contribute to the council's efforts include the Massachusetts Clean Energy Center (MassCEC) for promoting renewable energy and the Massachusetts Life Sciences Center (MLSC) for fostering innovation in the life sciences industry.

Additionally, non-profit, academic, and private sector partners in the innovation and entrepreneurship ecosystem would be valuable members of the council. Massachusetts is home to a number of impactful <u>incubators and accelerators</u> that work with hundreds if not thousands of entrepreneurs and could also help to implement many of this paper's recommendations.

By bringing together these organizations and others, the Entrepreneurship & Innovation Council would have a comprehensive representation of stakeholders who could collaboratively drive the development and implementation of policies and initiatives that support and strengthen the entrepreneurial ecosystem in Massachusetts.

Promote sector-specific innovation hubs to convene and concentrate resources, and leverage existing strengths in life science, biotechnology, and healthcare.

The establishment and promotion of sector-specific "innovation hubs" in Massachusetts can significantly benefit the state's economy and foster industry growth. These hubs serve as concentrated centers where industry stakeholders, including startups, established companies, research institutions, and government agencies, convene to collaborate, exchange ideas, and pool resources. By creating these innovation hubs, Massachusetts can leverage its existing strengths in various industries and catalyze innovation, research, and development within targeted sectors.

Massachusetts has become a leader in life sciences and biotech, anchored by quasi-public agencies like the Massachusetts Life Sciences Center, and nonprofits like MassBio. In many emerging industries, such as robotics, artificial intelligence, and quantum computing, Massachusetts may not be the singular national leader but is well positioned to lead in the application of these technologies within its leading sectors (for example, AI in life sciences; robotics in biomanufacturing, etc.).

As the state considers leveraging its strengths in these areas, and building it in others, it will be important to ensure that there are entities that provide a network to convene major players and aggregate resources in targeted sectors. These entities can also support business development functions —attracting and proactively recruiting startups in the associated industry and guiding them through how to move to or expand in Massachusetts.

Founded in 2020, MACP member MassMutual, in partnership with MassTech, spearheaded the launch of the Mass Fintech Hub. The Mass Fintech Hub has a membership of over 350 fintech companies and provides a platform that connects various stakeholders in the fintech industry to resources and networking opportunities, and includes VCs, startups, academia, corporates, accelerators, and the public sector. It has provided bootcamps for students, career fairs, fintech forums, a mentoring program, an angel investor education series, and more.

Currently, MACP is partnering with the Cambridge Innovation Center and Zipcar to launch a <u>Massachusetts Mobility Innovation Hub</u> to enable the movement of people and goods in a smarter, more sustainable, and more reliable way. The mission of the hub is to bring together leading mobility companies, entrepreneurs, policymakers, and thought leaders to advance sustainable transportation solutions and economic development throughout the state. MACP, CIC, and Zipcar are meeting with leaders in innovation and mobility to discuss partnership and sponsorship opportunities to get the initiative off the ground.

Another example is the non-profit <u>Cyber Trust Massachusetts</u>, which is coordinating business, higher education, and local governments and non-profit organizations on skill training and credentialing, an employment network, and mentoring and advising.

Innovation hubs become focal points for collaboration and provide opportunities for knowledge exchange, investment, and the development of cutting-edge solutions, ultimately strengthening the state's position as a leader in targeted sectors.

Set up a one-stop startup resource and advisory center to help entrepreneurs navigate starting a business in Massachusetts.

While innovation hubs are centered around specific industries, the state could also develop a center to act as a repository for all resources and connections that a startup might need. With staffing, it could provide entrepreneurs with a primary contact that could help direct them to the appropriate agencies and organizations that could best address their questions or challenges.

For example, in 2021 MACP collaborated with the City of Boston on a report conducted by Deloitte exploring how Massachusetts could better support women entrepreneurs. A key finding of the report was that while Massachusetts is rich with resources, many entrepreneurs and small business owners have trouble identifying, finding, and accessing them. One of the primary recommendations was to create a hub that would aggregate existing resources and programming, as well as establish a network of entrepreneurs and entrepreneur support organizations. MACP is now collaborating with the Center for Women and Enterprise which is developing such a hub (the "CWE Hub") focused on women entrepreneurs across the state.

Another example is the nonprofit <u>Small Business</u> <u>Strong</u>, which was developed in 2020 in response to the challenge that small businesses face with navigating the impacts of the COVID-19 pandemic. Seventeen organizations, including MACP members Bank of America, MassMutual, State Street, and Suffolk Construction, came together to build and fund the initiative, which provides minority and women led businesses with "expedited, pro-bono resources"

A report titled <u>"Best Practices in State and Regional Innovation Initiatives: Competing in the 21st Century"</u> was prepared by the National Academy of Sciences and identified the following best practices in states' development of innovation clusters:

- 1. U.S. research universities often play a key role in innovation-based regional economic development.
- 2. Cooperative research arrangements involving universities and companies play an important role.
- 3. Faculty recruitment has emerged as an important tool in innovation-based economic development.
- 4. Innovation intermediary organizations often make significant contributions.
- 5. Successful innovation-based economic development is often fostered by a small number of key individuals bridging the space between science and commercialization.
- 6. State-of-the-art equipment has played a key role.
- 7. Non-profit organizations, philanthropies and foundations, and university affiliated research foundations can play a critically important role in regional innovation initiatives.
- 8. Entrepreneurs need early-stage financing to bring new ideas to the marketplace.
- Political leadership and stability play an important role in successful state and regional innovation-based developments.

including "access to capital to consulting, business restructuring, business growth, digital marketing, and customer engagement plans."

The center could be located in the Massachusetts Office of Business Development (MOBD) and closely collaborate with the Massachusetts Small Business Development Center Network (MSBDC). In addition, the center should coordinate with quasi-public organizations such as MassVentures, Massachusetts Growth Capital Corporation (MGCC), and MassDevelopment, and nonprofits such as MassEcon. Collaborating with these organizations would enable the center to connect entrepreneurs with funding opportunities, mentorship programs, and business development initiatives that can accelerate their growth.

Furthermore, the center should establish partnerships with academic institutions, accelerators and incubators, and other entrepreneur support organizations. By coordinating across the ecosystem, the center could effectively guide entrepreneurs through the complexities of launching and growing a business in Massachusetts.

Talent

Talent is the key driver of economic growth and competitiveness. States that are able to attract and retain top talent are more likely to see higher rates of innovation, job creation, and economic prosperity. A talented workforce is essential for any business, but is especially critical when considering the ability of a startup to successfully launch and grow. This is particularly true in industries such as technology, where talent is at a premium.

Massachusetts colleges and universities attract people from all over the country and the world. When those students choose to remain in the state once they graduate, it provides an unparalleled talent pipeline. For example, more than 38% of the software, biotech, and electronics companies founded by MIT graduates are located in Massachusetts, while less than 10% of incoming MIT freshmen are from the state. Additionally, Massachusetts ranks "fourth in the nation for total number of international students, with more than 66,000, [and] second on a per capita basis." International students are "more likely than their native peers to start businesses that employ 10 or more people." However, the state struggles to retain recent graduates, especially due to the high cost of living.

Alarmingly, Massachusetts has seen a steady <u>decline in population</u> and in-migration over the last decade. It is not just enough to attract talent, but critical to ensure that Massachusetts residents have the skills to work in the innovation sector. This is especially important as a strategy to upskill residents and open opportunities to work in in-demand and growing sectors.

By investing in education and workforce development programs and easing a pathway to immigration, Massachusetts can attract and retain the talent needed to fuel its innovation economy.

Organize industry-specific internship, apprenticeship, and fellowship programs to provide startups and industry with labor and create a pipeline to retain students in Massachusetts with careers in in-demand fields.

Internships are not only a source of more affordable talent for startups, but they can often convert to permanent jobs and can therefore serve as a retention strategy for keeping university students in Massachusetts after graduation. The National Association of Colleges and Employers found that full-time employees hired following internships are up to 20% more likely to stick with their hiring organization when compared to non-intern hires.

Many entrepreneur support organizations have shared that their startups have either greatly benefited from programs like the Massachusetts Life Sciences Internship Program or would if there was an equivalent in their industry.

The Massachusetts Life Sciences Internship Program is designed to provide life sciences startups and small businesses with interns from Massachusetts colleges and universities who are interested in pursuing careers in the life sciences. The program has funded over 5,500 internship opportunities for students in the life sciences since it began, giving them valuable hands-on experience in the field. Many of the interns who participate in the program are able to find employment with the companies they intern with and 40% were offered jobs immediately following their internship. Additionally, the University of Massachusetts Donahue Institute found that the program has generated over \$1 billion in economic activity in the state since it began.

Similarly, over 900 interns from the <u>Massachusetts Clean Energy Internship Program</u> have received full-time job offers at their host companies. The program has placed over 5,000 students and recent graduates at more than 600 clean energy companies across the state. Since 2013, the <u>MassTech Intern Partnership</u> has provided over \$3 million to support nearly 1050 summer interns at 419 tech firms across Massachusetts.

A few other states have similar programs:

- The <u>Innovate Rhode Island Small Business Fund (IRISBF) Internship Grant Program</u> provides life sciences and engineering companies with grants of up to \$3,000 to help offset the costs of internships. The interns must be Rhode Island residents attending Rhode Island colleges and universities.
- Michigan's <u>STEM Forward</u> program out of <u>Ann Arbor SPARK</u> connects businesses to interns from Michigan universities (or Michigan residents attending college out of state) and pays 50% of the interns' wages for a 10–12 week internship period.
- In New York, the New York State Energy Research and Development Authority (<u>NYSERDA</u>) pre-qualifies prospective interns for companies in the energy efficiency, clean technology, and renewable energy sectors and covers up to 90% of the interns' wages through its <u>Clean Energy Internship program</u>.

Massachusetts should consider either expanding its existing programs with more funding (to support more interns, or to cover all costs for those that only reimburse a portion), opening eligibility requirements for companies, or targeting additional industries.

Expand workforce training programs and opportunities, specifically at community colleges, that are geared towards potential entrepreneurs or employees for startups and small businesses.

Massachusetts is currently facing a tight labor market, and it can be particularly challenging for startups to find talent with the right set of skills. The state's community colleges offer workforce development and training across the state and programs developed at each college that align with local workforce needs and are tailored to prepare students for either entrepreneurship or to work for a startup will be key.

With more than <u>136,000 students</u> across 15 institutions, the state's community colleges should be part of a regional cluster strategy. Community college presidents can work with entrepreneur support organizations to help identify emerging and growing industries and roles to develop training programs to meet the demand. Additionally, they can offer more programming and access to resources (perhaps through partnering with established incubators and accelerators) to students interested in pursuing entrepreneurship.

A couple of examples of community colleges in other states that have dedicated resources and have intentionally pursued strategies to prepare students for the startup and innovation ecosystem include:

- <u>Pima Community College</u> in Tucson, Arizona prioritizes employer responsiveness in all of its programs, and has adopted the strategy of quickly setting up non-credit courses to meet demand and then transitions it to a credit-bearing course once established. The college works closely with the local business community.
- Miami Dade College in Florida received \$7 million dollars from local government and a 1:1 private philanthropic match (for a total \$14 million dollars) to expand its tech programs. The college has been intentional about preparing its students for the future of work and has created an institutional structure and strategic plan that are aligned with the local innovation ecosystem's needs, as well as developed physical and virtual spaces for students and faculty to engage with the ecosystem such as its Idea Center for Entrepreneurship, Cybersecurity Center, Cloud Computing Center, and Business Innovation & Technology Center.

Alignment between training providers and industry, as well as partnerships with community based and entrepreneur support organizations, will help Massachusetts residents prepare for, and thrive in, employment in the growing innovation sector.

Encourage more plentiful entrepreneurship programming at colleges and universities.

Massachusetts should actively encourage the expansion of entrepreneurship programming at colleges and universities to foster a culture of innovation, empower students with entrepreneurial skills, and facilitate the launch of successful ventures. By integrating entrepreneurship education and resources into higher education institutions, Massachusetts can cultivate a supportive ecosystem that nurtures aspiring entrepreneurs and equips them with the necessary tools and knowledge to succeed.

Several colleges in Massachusetts already have strong entrepreneurship programs and resources in place. For example,

- Babson College is renowned for its focus on entrepreneurship education and consistently ranks among the top schools for entrepreneurship. Babson's <u>Arthur M. Blank Center for Entrepreneurship</u> provides a wide range of programs, including courses, mentorship, funding opportunities, and networking events. At the 2022 Global Consortium of Entrepreneurship Centers, it won the prestigious Nasdaq Center for Entrepreneurial Excellence Award, the highest honor that a university entrepreneurship center can receive.
- Massachusetts Institute of Technology (MIT) offers an array of entrepreneurshipfocused programs, centers, and competitions. <u>The Martin Trust Center for MIT</u> <u>Entrepreneurship</u> is a hub for entrepreneurial activities, providing resources, mentorship, and funding for student startups.

To encourage more programming, Massachusetts can also foster partnerships between academia and the business community, creating opportunities for students to engage with entrepreneurs, industry professionals, and mentors who can offer guidance and support.

Furthermore, Massachusetts can offer incentives, such as tax credits or grants, to colleges and universities that prioritize entrepreneurship education and demonstrate a commitment to fostering student entrepreneurship.

Attract international entrepreneurs and ease the pathway to immigration into the United States.

Immigrant entrepreneurs play a crucial role in the innovation economy, but they often face significant barriers in the immigration process. According to the American Immigration Council, in 2019, 24% of entrepreneurs in Massachusetts were immigrants, and they generated \$2.3 billion in business income. Massachusetts should work to ease the pathway to immigration by providing resources and support for immigrant entrepreneurs and advocating for immigration policy reform.

One example of a program to attract and support immigrant entrepreneurs was the <u>Global Entrepreneur in Residence (GEIR) program</u>. In 2014, the Massachusetts legislature established the framework for a program that facilitated connections between the University

of Massachusetts system and foreign-born entrepreneurs to help those entrepreneurs acquire cap-exempt (through the university) H-1B visas that would allow them to build their companies in the United States, and specifically, in Massachusetts. At UMass Boston, over 100 global entrepreneurs went through the program, and 65% of them are still active in the US. Their companies have 1,690 employees and have raised \$1,017,657,000 in funding. The program also expanded to Babson University.

The Massachusetts GEIR program received \$3 million for a 3-year pilot in the 2014 Economic Development Bill. The program received \$50,000 in the FY2018 and FY2019 budgets, but faced a significant setback in FY2020 when it failed to receive state funding, despite a proposed increase that would have raised the state's investment to \$250,000. Adding to the program's disruption, in 2020 its director retired.

With the reinstatement of the <u>International Entrepreneur Rule</u> by the Biden Administration in 2021, some immigrant entrepreneurs may find the process of acquiring a visa easier. Therefore, programs or policies that specifically incentivize entrepreneurs to move to and build their companies in Massachusetts would greatly benefit the Commonwealth in fostering new businesses and innovation. Given its previous success, the Massachusetts GEIR program should be revived and the state should provide sufficient funding to relaunch it.

Focus intentional efforts on supporting entrepreneurs from underrepresented groups.

Focusing on entrepreneurs from underrepresented groups is not only a matter of equity and inclusivity, but also a strategic approach that can yield significant economic and societal benefits. By providing targeted support and resources to underrepresented entrepreneurs, the state can tap into a vast pool of untapped talent, innovation, and diverse perspectives. This approach fosters a more inclusive entrepreneurial ecosystem, drives economic growth, and addresses longstanding disparities in access to capital and opportunities.

Massachusetts can establish programs that provide financial resources, mentorship, networking opportunities, and access to markets for underrepresented entrepreneurs. More importantly, the state can collaborate with and support public and private entities, including incubators and accelerators, that are already doing this work. A few examples (but by no means an exhaustive list) of organizations and initiatives underway in Massachusetts include:

BECMA (Black Economic Development Council of Massachusetts)

 BECMA's mission is to advance the economic well-being of Black businesses, organizations, and residents in Massachusetts through advocacy, business and leadership development, and strategic partnerships. As part of its work, BECMA nurtures start-ups and supports existing entrepreneurs by providing them with finances and resources to overcome the racial wealth gap.

The Boston Foundation: **Business Equity Fund**

- The Business Equity Fund at the Boston Foundation is designed to address long standing barriers to growth financing and technical assistance that have historically limited opportunity for entrepreneurs of color.
 - o To date, through a competitive application process, seven businesses have received a combined total of \$2.3 million in low-cost loans. The BEF has also unlocked an additional \$2.8 million of more traditional capital to support another eight businesses, bringing total leveraged dollars to \$5.1 million. As an evergreen loan fund, loan repayments are returned to the Fund to be recycled into new financing and equity investments in other businesses.
 - The Business Equity Fund is currently actively seeking grants and contribution funding from foundations, government entities, and others to broaden the pool of capital available for investment in qualified businesses.

Visible Hands

 Visible Hands is a venture capital firm that provides exceptional founders from underrepresented backgrounds with the funds, hands-on support, and community they need to thrive. They invest in overlooked founders nationally at the pre-seed and seed stages and run programs like accelerators, fellowships, and wellness retreats for founders.

MassChallenge's <u>MITRE Social Innovation Mentorship Program for Underrepresented</u> Founders

- MassChallenge, the global network for innovators, and MITRE, an operator of federally funded R&D centers, have partnered to launch a new mentorship program designed to lower barriers for underrepresented founders in the entrepreneurial ecosystem. Applicants must have at least one founder from historicallyunderrepresented identities including Black, Indigenous, People of Color (BIPOC), non-binary, and/or women.
- Startups with solutions in Advanced Manufacturing, Artificial Intelligence (AI), BlueTech, Cybersecurity, or Digital Health are encouraged to apply. Ten companies will ultimately participate in the program (two per challenge area).

The Center for Women and Enterprise

The Center for Women and Enterprise (CWE) helps women business owners and
aspiring women entrepreneurs launch and grow their business by providing greater
access to the resources, tools and support they need. MACP has <u>partnered with CWE</u>
to assist its expansion into western Massachusetts and creation of an online
networking and resources hub.

Boston Fed's Leaders of Equitable Local Communities

• The Boston Fed's LELE (<u>Leaders for Equitable Local Communities</u>) team launched a grant program to support entrepreneurs of color. The LELE program, part of the Bank's Working Places initiative, supports local leaders who are working to strengthen the economies of smaller cities in Massachusetts.

ICIC (Initiative for a Competitive Inner City)

 The ICIC drives inclusive economic prosperity in under-resourced communities through innovative research and programs to create jobs, income, and wealth for local residents.

Foundation for Business Equity

• The Foundation for Business Equity identifies, invests in and expands approaches that will foster an environment of support, inclusion and growth for Black and Latinx businesses. Its Business Equity Initiative provides quality capacity building through high touch strategic advisory to drive growth for Black and Latinx businesses.

Branding & Marketing Challenge, Convene, Celebrate, & Campaign

Massachusetts can more effectively promote its achievements in entrepreneurship. The Commonwealth has an opportunity and responsibility to champion Massachusetts as a leader, if not *the* leader, in innovation and startup formation.

By showcasing groundbreaking innovators, Massachusetts has the potential to attract more "wicked smart" and talented individuals who can contribute to the state's strong ecosystem. Celebrating Massachusetts' entrepreneurialism space inspires greater participation from innovators, investors, and other stakeholders.

A successful marketing plan could attract and retain more entrepreneurs, talent, and capital, leading to increased business formation and facilitating a cross sector convergence of ideas. This could lead to breakthrough discoveries, new opportunities, and the resolution of longstanding challenges, on top of increased employment opportunities and revenues for the state.

Organize competitions to both reward existing entrepreneurs and encourage others to join their ranks.

An integral aspect of marketing involves highlighting existing resources and accomplishments, and then encouraging and motivating others to get involved. An effective way to accomplish both is to sponsor competitions and challenges that allow startups to pitch their innovations. These initiatives not only enhance the reputation of Massachusetts as a hub of entrepreneurship but also attract a diverse range of stakeholders who contribute to the growth and vibrancy of the ecosystem.

For example:

- MassChallenge brings the startup community together via a showcase event, and uses
 a competition model to select participants for its accelerator programs. For its U.S.
 Early Stage program, applicants participate in two rounds of judging by industry
 experts, to determine finalists for each cohort. While MassChallenge does not offer
 financing or funding, participants and alumni can compete for cash prizes.
 - Last September, MassChallenge hosted its annual <u>Early Stage Showcase</u>, featuring the over 200 startups. Those startups provided demonstrations and gave pitches in a competition for a \$25,000 "Community Choice Award" prize.
 - This event not only generates visibility for the participating startups but also encourages meaningful connections and collaborations among ecosystem stakeholders.
- The state's quasi-public agencies have also used challenges to award funding and
 encourage further collaboration and networking in the innovation ecosystem. For
 example, MeHi (the Massachusetts eHealth Institute) at MassTech recently hosted the
 Healthy Aging Sandbox Challenge, a months-long competition for companies to pitch
 their innovative digital products to promote healthy aging for a \$50,000 prize which
 can be used to "further scope, test, and validate their products."
 - MIT's AgeLab and innovation hub AGENCY@CIC also played a role in the event.
- Companies can also host challenges to help identify new ideas and talent. MACP member Point32Health is holding its second "Innovation Challenge" to "identify, fund, and work together to implement a pilot" that offers solutions to improve healthcare for its members and communities, with a prize of up to \$1 million to implement their program.

Competitions are also held at academic institutions:

- For the last 12 years, Babson College has run an annual <u>Entrepreneurial Thought & Action (BETA) Challenge</u>, which aims "to find and support startups that are solving problems and creating impact."
- Likewise, MIT's \$100K Entrepreneurship Competition provides undergraduate and graduate students with the opportunity to access "a network of resources, including mentorship from venture capitalists, serial entrepreneurs, corporate executives, and attorneys; media exposure; prototyping funds; business plan feedback; and discounted services" to learn how to pitch, accelerate, and launch their businesses.
 - Participating in these competitions also prepares students for national competitions like the <u>UGA Collegiate Great Brands Competition</u> in addition to providing valuable experience for post-collegiate entrepreneurship.
- At the high school level, organizations like <u>DECA</u>, which offers competitive events, equip students with the essential knowledge, skills, and experiences necessary to excel in the business world, and by extension, in entrepreneurship.

To further inspire students, more challenges should be organized for emerging talent in schools and universities. More focus could be given to community college students, high school students (at both comprehensive and vocational schools), and even middle school students. For the latter, organizations like <u>Junior Achievement</u> should be embraced and encouraged. State funding should be directed, and policy should be addressed, at each academic level to develop more programming for students.

The state government could also collaborate with industry leaders, universities and research institutions, incubators, accelerators, investors and other stakeholders to organize innovation challenges that can showcase Massachusetts' ability to solve complex problems and drive groundbreaking advancements. For instance, Massachusetts could partner with a leading technology company to host a challenge focused on developing sustainable energy solutions. This collaboration would not only draw attention to the state's expertise in clean energy but also attract innovators, investors, and other stakeholders from around the world. The resulting solutions and technologies can further cement Massachusetts' reputation as a global leader in clean tech innovation.

Work with industry cluster leaders to convene forums that attract the regional, national, and international entrepreneurship community.

Strategically convening industry leaders at a centralized location offers numerous advantages, including valuable learning experiences, networking opportunities, and the ability to showcase local thought leaders and companies. This approach also positions the host location as a supportive hub for specific industries, enhancing its reputation and visibility. Massachusetts has effectively implemented, and should continue to employ, a localized marketing strategy by positioning itself as the premier destination for hosting general conferences or industry-specific gatherings within the entrepreneurial ecosystem. This strategic approach not only enables the state to highlight its robust ecosystem but also serves as a platform to promote Massachusetts globally as an ideal destination for entrepreneurial endeavors.

It is crucial to support established symposiums like the <u>World Medical Innovation Forum</u>, hosted by MACP members Bank of America and Mass General Brigham, which helps to solidify Massachusetts' leadership in research, healthcare, and life sciences. Burgeoning industry-specific events, like <u>Boston Blockchain Week</u> organized by QUBIC Labs and <u>Boston Fintech Week</u>, should also be prioritized.

Existing block-party style festivals like the Massachusetts Technology Leadership Council's <u>Boston TechJam</u> and MassRobotic's <u>RoboBoston Annual Block Party</u> offer startups an opportunity to showcase and network with others in the ecosystem. Likewise, <u>Startup Boston Week</u> is organized for the innovation ecosystem more broadly. These types of events

contribute to the area's reputation as an innovation hub, and also add an element of fun that can appeal to a wide audience.

The state should consider providing matching funding, dedicated staff, and space for approved conventions. Perhaps a "World Entrepreneurship and Innovation Forum" could be organized, or organizations like Greentown Labs could be empowered and funded to create sector-specific opportunities to bring in people from around the world and highlight local research and industry developments.

Beyond the advancement of the entrepreneurial cause, conventions, big and small, create commerce opportunities which can support local jobs and economies, and even encourage residents to create companies to support those conventions. Spaces exist beyond Boston, as do the entities that could host well planned and well financed forums, like the Berkshire Innovation Center in Pittsfield.

Convention competition from other states and cities is fierce. A global trade association for convention and visitors bureaus found that in 2022, Orlando hosted the largest number of 3,000-rooms-needed events, "followed by Chicago, San

MIT's Industrial Performance
Center released a report funded by
MACP and MassTech titled
"Growing Innovative Companies to
Scale: How does Massachusetts
Measure Up?" The report's authors
suggested the state take the
following actions to create an
ecosystem that supports companies
growing to scale:

- 1. Focus more attention on companies that are on the path to scale.
- 2. Continue to support the region's strength in the life sciences.
- 3. Develop a strategy for growing software & Internet startups that builds on the region's strengths.
- 4. Focus on developing talent from the university to the executive suite.
- 5. Recognize and celebrate the region's successful entrepreneurs and companies.

Diego, and Las Vegas." It is also important to note that an inhibitor to hosting larger conventions will be the availability of dates at the Boston Convention and Exhibition Center (BCEC). It is imperative that policy makers consider and address the needs of the BCEC and other such venues.

By attracting diverse participants from around the world, Massachusetts can strengthen its reputation, foster collaboration, and create avenues for knowledge exchange, ultimately bolstering its position as a leader in the entrepreneurial landscape.

Celebrate the accomplishments of entrepreneurs.

Promoting accomplished innovators from Massachusetts carries a twofold advantage: it enables them to attract additional attention, investment, and resources, while also enhancing the reputation of the state's thriving entrepreneurial ecosystem.

Massachusetts should proactively find ways to elevate and amplify the names and achievements of those leading the way in scientific discoveries and groundbreaking innovations, as well as stakeholders that provide necessary support. By doing so, it

establishes a distinguished roster of individuals associated with Massachusetts. More than that, it highlights Massachusetts as a place where talented individuals can not only build their careers and companies, but also create widespread, meaningful, and lasting impact.

Celebratory events, awards ceremonies, and media campaigns can highlight the achievements of entrepreneurs, their groundbreaking products or services, and the transformative impact they have on society. Recognizing the contributions of investors, mentors, and other ecosystem stakeholders is equally important, as their support is instrumental in nurturing entrepreneurial talent.

For example, Massachusetts could do more to promote <u>Kizzmekia Corbett</u>, who, with her scientific team at Cambridge-based Moderna, was pivotal in developing the COVID vaccine that had a significant global impact. Examples of role models like Dr. Corbett can provide inspiration to everyone, but also particularly to young women of color, who are underrepresented in STEM fields.

By emphasizing the success stories and promoting the state's collective spirit of innovation, Massachusetts can establish itself as a beacon for entrepreneurial talent, investment, and collaboration, further strengthening its reputation as a global leader in entrepreneurship.

Create marketing campaigns that continue to promote Massachusetts as a leading "thinking and doing" place.

In developing a public awareness and promotion campaign, Massachusetts can focus on highlighting its historical and hiexisting strengths.

For example, an initiative already underway is the newly-established <u>Innovation Trail</u>, which offers a walking tour (either guided or self-directed) through Boston and Cambridge of sites related to "four centuries of world-changing breakthroughs" in science, entrepreneurship, and technology. Akin to Boston's Freedom Trail, this attraction not only provides tourists and locals with entertainment and a history lesson, but also helps to cement Massachusetts' reputation as a hub of innovation. Similarly, exhibits and events from institutions like the Boston Museum of Science can contribute to educating the public about the area's leadership in technological advancements.

To further brand itself as a leader in entrepreneurship and innovation, Massachusetts could invest in targeted marketing campaigns, both domestically and internationally. These campaigns should emphasize the state's vibrant startup ecosystem, research institutions, and strong network of investors. By showcasing success stories and highlighting the support available to entrepreneurs, Massachusetts can attract a steady influx of talented individuals and forward-thinking companies.

Many states are running campaigns directed at businesses and innovators:

- Georgia advertises that "We Speak Business."
- "If you're all in, it's all in North Carolina."

- Michigan is building on its "Pure Michigan" campaign to include "<u>Pure Opportunity</u>" for businesses and talent – and later this year will be launching "the nation's largest talent attraction campaign."
- Greater Seattle recently launched its "<u>Uncommon Thinkers Welcome</u>" campaign,
 which highlights the region's leading companies and institutions. Similar to
 Massachusetts, the area is home to companies that "<u>fundamentally change the world</u>"
 and leaders are leaning into that reputation to attract more.

Showcasing the advantages that have historically propelled Massachusetts' success in entrepreneurship and innovation becomes increasingly timely and relevant as competition from other states increases. Massachusetts can leverage all of its strengths in order to retain and attract more entrepreneurs and the supporting ecosystem, while fostering economic growth. A Massachusetts branding and marketing campaign around entrepreneurship is also a campaign about enrolling in a top-rated university, receiving cutting-edge medical treatment at a world-class institution, or booking a getaway to the Berkshires or Cape Cod.

Conclusion

By its very nature, innovation necessitates an active pursuit of what's new and a continuous drive to explore and embrace emerging ideas. Massachusetts has been, and continues to be, a leader in innovation and entrepreneurship but cannot rest on its laurels. The state government plays a crucial role in supporting that pursuit and should actively collaborate with the state's incubators and accelerators, in addition to colleges, universities, investment firms, and others, to support and foster growth in the entrepreneurship and innovation ecosystem. By doing so, the Commonwealth can drive economic development, attract talent and investment, foster innovation, and create a vibrant ecosystem that positions Massachusetts as a leader in entrepreneurship.

Massachusetts Entrepreneur Support Organizations Interviewed for This Report



Berkshire Innovation Center

The Berkshire Innovation Center, which officially opened in 2020, provides regional manufacturers and STEM businesses with advanced R&D equipment, state-of-the-art lab and training facilities, and collaboration opportunities with BIC's renowned research partners, as well as internship and apprenticeship programs for local students. Operationally, the BIC is a membership model designed to be self-sustainable and private sector driven.



Center for Women and Enterprise

Established in 1995, the Center for Women & Enterprise (CWE) has been a community that connects, educates, empowers, and brings awareness to one of the greatest levers for socioeconomic growth: women entrepreneurs. CWE works hard to ensure that all women, regardless of their economic status, are provided access to its programs and services. CWE offers scholarships to disadvantaged clients while fostering influential relationships for successful business women at the other end of the financial spectrum.



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 incubators in Somerville, Mass. and Houston, Texas, Greentown Labs is home to more than 200 startups and has supported more than 500 since the incubator's founding in 2011. These startups have collectively created more than 24,000 jobs, raised more than \$4 billion in funding, and generated more than \$9.8 billion in regional economic impact.



Lab Central

LabCentral is a Massachusetts non-profit company, founded in 2013 as a launchpad for high-potential life sciences and biotech start-ups. Operating over 225,000 sq. feet in Cambridge and on the Harvard University campus, LabCentral offers a network of fully permitted laboratory and office spaces for as many as 125 start-ups comprising approximately 1000 scientists and entrepreneurs. In addition, LabCentral is committed to creating a more

sustainable and inclusive biotech system supporting developments in STEM, workforce training, and next generation entrepreneurship through its LabCentral Ignite initiative.



Lever, Inc

Lever is a North Adams-based startup incubator focused on regional economic development. It helps launch and grow enterprises that leverage local assets, including the talents of young people from the region's colleges. Lever provides startups with low-cost space, mentoring, access to its network of experts, and, in some cases, equity financing. Since its 2014 launch, Lever has led the development of the Berkshire region's entrepreneur ecosystem by supporting over 250 entrepreneurs.



MassChallenge

MassChallenge is a nonprofit that supports innovators from all backgrounds to create breakthrough change and accelerate their business without requiring financial stake in the success of the organization. It provides startups with a 4-month program centered on mentorship and exhibition events focused on creating growth, funding, and 3rd party collaboration.



MassRobotics

MassRobotics is the collective work of a group of Boston-area engineers, rocket scientists and entrepreneurs. With a shared vision to create an innovation hub to support and focus on the needs of the robotics and startup community and to escalate these companies to success, MassRobotics was born. MassRobotics' mission is to help create and scale the next generation of successful global robotics and connected device companies by providing entrepreneurs and innovative robotics and automation startups with the workspace and resources they need to develop, prototype, test, and commercialize their products and solutions.



OUBIC Labs

Based in Quincy, QUBIC Labs was founded in 2019 with the goal of expanding the innovation economy throughout the greater Boston area, and has developed a unique approach to supporting the blockchain and Web3 ecosystem in the region. QUBIC Labs supports founders and startups using funds derived from membership fees, sponsorships, and other public-private partnerships. QUBIC Labs has developed relationships across the public and private sectors, including capital sources, that fuel our efforts to stimulate economic growth and create jobs in an emerging technology sector.



The Engine

The Engine, built by MIT, is a venture firm that invests in early-stage companies solving the world's biggest problems through the convergence of breakthrough science, engineering, and leadership. Its mission is to accelerate the path to market for Tough Tech companies by providing access to a unique combination of investment, infrastructure, and community.

VISIBLE HANDS

Visible Hands

Visible Hands is a venture capital firm that provides exceptional founders from underrepresented backgrounds with the funds, hands-on support, and community they need to thrive. It invests in overlooked founders nationally at the pre-seed and seed stages and run programs like accelerators, fellowships, and wellness retreats for founders.