

OPTIMIZING THE IMPACT

OF THE ENDLESS FRONTIERS ACT

Insights from the Field
May 2021





Caitlin Brumme
Senior Vice President,
MassChallenge U.S



Hope Hopkins
Managing Director,
MassChallenge New England



Jon Nordby
Managing Director,
MassChallenge Texas



Christan Melton
Director,
Strategic Partnerships

About MassChallenge

MassChallenge is a non-profit 501(c)3 organization dedicated to supporting innovation and entrepreneurship through collaboration and development. We have more than a decade of experience accelerating startups, industry, and innovation ecosystems. We work across sectors to drive a stronger future through collaborative innovation. Learn more at www.masschallenge.org

“While venture funding is very efficacious in stimulating a certain kind of innovative business, the scope is increasingly limited. This concentration may be privately optimal from the perspective of the venture funds and those who provide them with capital. It is natural to worry, however, about the social implications of these shifts. For instance, promising startups developing renewable energy technologies and advanced materials, which might have broad societal benefits, may languish unfunded.

Professor Josh Lerner and Professor Ramana Nanda

Journal of Economic Perspectives, July 2020

The Endless Frontiers Act has the primary objective of preserving U.S Global leadership and driving economic growth through bold investment in technology research and development, commercialization and manufacturing.

Our experience and leading academic research shows that entrepreneurship is a critical component of a thriving innovation system and an outsized driver of technology innovation and job creation.

High growth, technology entrepreneurs cross the chasm between research and development (R&D) and economic impact by taking outsized risk to create businesses that apply novel technology to solve critical challenges. While failure rates may be high, startups are a disproportionate source of invention, innovation commercialization¹ and employment, ultimately contributing to a more resilient knowledge and technology-driven economy.

Global leadership in technology and innovation must include continued public sector investment to preserve *and accelerate* U.S global leadership in entrepreneurship. The private sector alone is insufficient in addressing three challenges faced by entrepreneurs; challenges which are amplified in categories critical to U.S leadership but complex in nature such as quantum, robotics or offshore wind.

- 1 Entrepreneurship is hard
- 2 Access to resources is not easy or equitable
- 3 Ecosystems require cultivation over the long-term

¹Up to to half of innovations may be attributed to startups compared to industry. This outsized contribution was particularly pronounced in emerging or immature industries or technologies. Available online: https://www.nber.org/system/files/working_papers/w26884/w26884.pdf

Startups play an outsized role in accelerating innovation and job creation. The Endless Frontiers Act can increase the economic impact of investment in entrepreneurship through the following:

	WHAT	HOW
 ACCELERATE	<p>Entrepreneurship is not easy.</p> <p>Technology entrepreneurs or aspiring entrepreneurs require programs that democratize access to knowledge, networks, and expertise.</p>	<ul style="list-style-type: none"> Allocate funding specifically to “PhD to CEO” training to enhance efforts to commercialize research via new business formation Allocate funding to launch or scale venture support organizations or competitions <i>specific</i> to priority technology categories to accelerate category and startup growth¹ Require funding recipients to have measurable plan to support underrepresented entrepreneurs
 CAPITALIZE	<p>Access to capital is not easy or equitable.</p> <p>Private capital is important but insufficient. Public funding helps to de-risk novel solutions and address gaps in market including for “tough tech” and other higher-risk categories and underrepresented founders.</p>	<ul style="list-style-type: none"> Permit NSF recipients to use funds for product development and commercialization Increase investment in SBIR and STTR programs with requirement for portion to be deployed through fast and flexible approaches for Phase I; ² allocate funding to programs that support startups in understanding and applying to SBIR Launch U.S-wide competitions, hosted in regional Hubs, to award non-equity prizes to companies in priority technology categories at early and growth stages
 ACTIVATE	<p>Ecosystems require cultivation over the long-term.</p> <p>Ecosystems take time to form and grow. They require investment in and collaboration across typical silos. Strong ecosystems balance regional density and global connectivity to thrive.</p>	<ul style="list-style-type: none"> Ensure Technology Hubs funding and objectives recognize long-term horizons³ Require consortium to have local <u>and</u> national participants and objectives in order to create regional density and national connectivity** Require evaluation and measurement of Hubs and flexibility for Hubs to modify plans to achieve outcomes over time

MassChallenge would be pleased to organize a representative focus group of entrepreneurs to provide additional “field-level” insights for the benefit policy and lawmakers.

¹ For example, <https://startupswin.sharepoint.com/:w:/s/EarlyStagePrograms/EZ4qsb9VcxtGoWcNLJBGPPUBfaUoNGan1Fj1COXuat9uQ?e=ugcwM7>

² For example, the AiFWERX Phase One Open Topic, <https://www.afwerx.af.mil/sbir.html>

³ Josh Lerner, Boulevard Broken Dreams emphasizes that putting restrictions on startups or programs to achieve regional economic development goals can in fact be counterproductive.

**We envision a stronger future
through collaborative innovation.**

Come solve with us