

Air Force Innovation Program

Community Partnerships & Engagement
Innovation @ Speed

Presented by The Hanscom AFB Innovation Team, MITRE, and
MassChallenge

Topics Covered

1. What is the Hanscom Innovation Team?
2. What is MassChallenge?
3. The Need: Workforce Training Gap & Contracting Process
4. The Solution: Air Force Labs & Banshee
5. Funding & Contracting Model
6. Implementation
7. 1-2 AF Lab Example Success Stories
8. Banshee Success Story
9. Metrics
10. Next Steps



**What is the Hanscom
Innovation
Team/MassChallenge**



PEO
Digital



The HIT is a cross-functional team whose mission is to encourage innovation through improving methods and processes to apply technology to solve problems facing the Air Force



Drive organizational culture shifts



Adapt the Air Force's approach to small businesses and startups



Promote and reward entrepreneurial accomplishments



Expand the innovation footprint through innovation training programs

Cultivate a community of revolutionary innovators to solve any challenge

ABOUT MASSCHALLENGE

Founded in 2009, MassChallenge accelerates over 400 startups year through nine highly-selective, zero-equity programs.

8 MassChallenge Offices

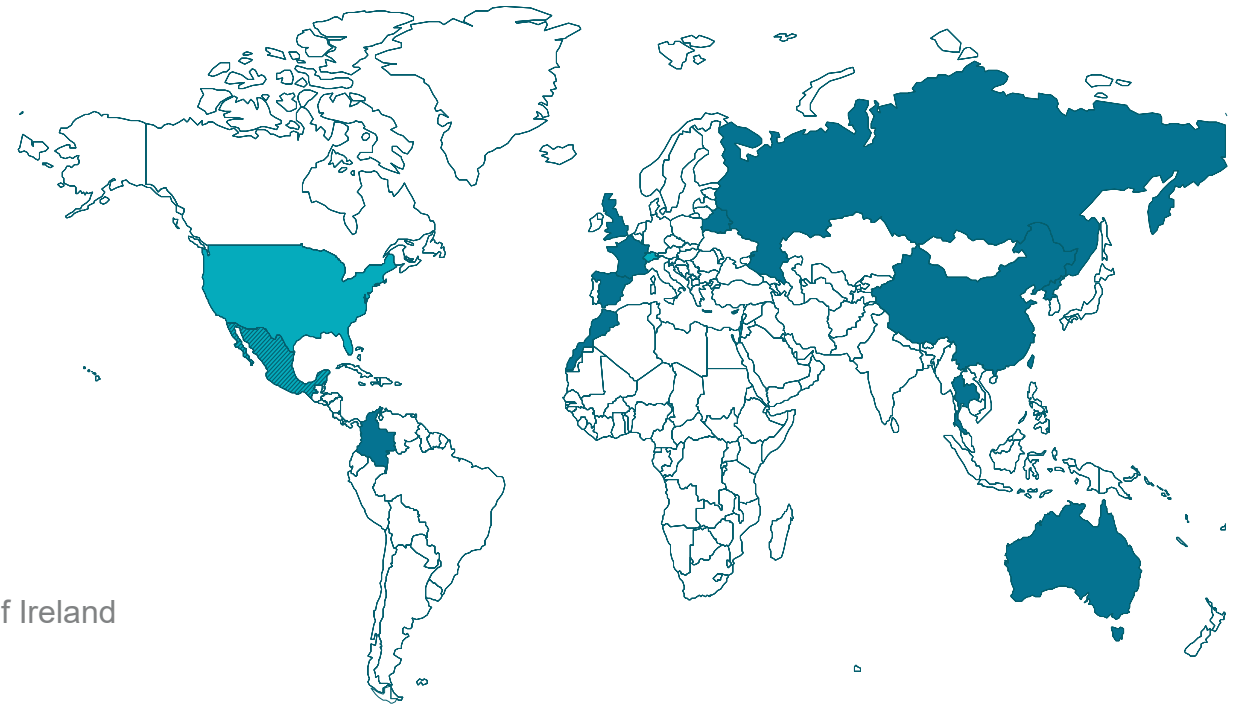
- 📍 Boston
- 📍 Rhode Island
- 📍 Austin
- 📍 Houston
- 📍 Dallas

10 Accelerator Programs

- 📍 Israel
- 📍 Mexico
- 📍 Switzerland
- 📍 FinTech (Boston)
- 📍 HealthTech (Boston)

14 Global Ecosystem Engagements

- | | |
|-------------|-----------------------|
| 📍 Australia | 📍 Poland |
| 📍 China | 📍 Republic of Ireland |
| 📍 Colombia | 📍 Russia |
| 📍 France | 📍 Spain |
| 📍 Korea | 📍 Taiwan |
| 📍 Mexico | 📍 Thailand |
| 📍 Morocco | 📍 United Kingdom |



MASSCHALLENGE RESULTS

We measure our success by our startups' success. These results show our ability to support high-potential startups and economic development.

2,928+
STARTUPS ACCELERATED

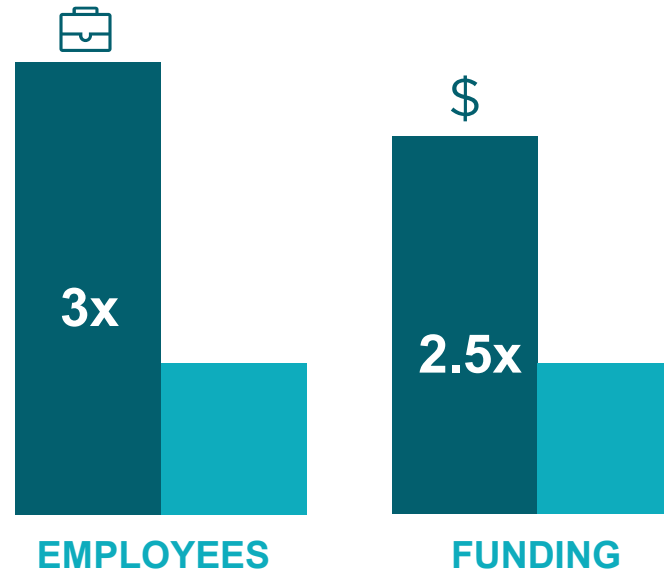
186K+
JOBS CREATED

\$3.6B+
REVENUE GENERATED

\$8.6B+
FUNDING RAISED

47%
2021 STARTUPS
BIPOC FOUNDED

48%
2021 STARTUPS
FEMALE FOUNDED



Startups that participate in MassChallenge are 2.5x more likely to raise at least \$500K in funding and 3x more likely to reach at least 15 employees – Study conducted by MIT*

*Note: Data analyzed in MIT dissertation research by Daniel Fehder, under the supervision of MIT Professors Fiona Murray and Scott Stern

The Air Force seeks to streamline collaboration with non-traditional partners and the innovation ecosystem to maintain our global, competitive edge

VISION

The U.S Air Force will be a global leader in collaborating with non-traditional partners to drive defense innovation at speed in support our most critical national security challenges.

This vision requires a multi-prong approach:

- Airmen trained for entrepreneurial and agile mindset giving them the confidence and tools to go faster
- Systems build to rapidly identify, engage and fund innovative startups solving national security challenges.
- Programs that create internal capacity to convert startups into meaningful solutions at scale for the Airforce
- Deep connectivity within entrepreneurially and venture funding landscape that bring innovators proximate to defense priorities

EDUCATE

Opportunities, best practices, path forward

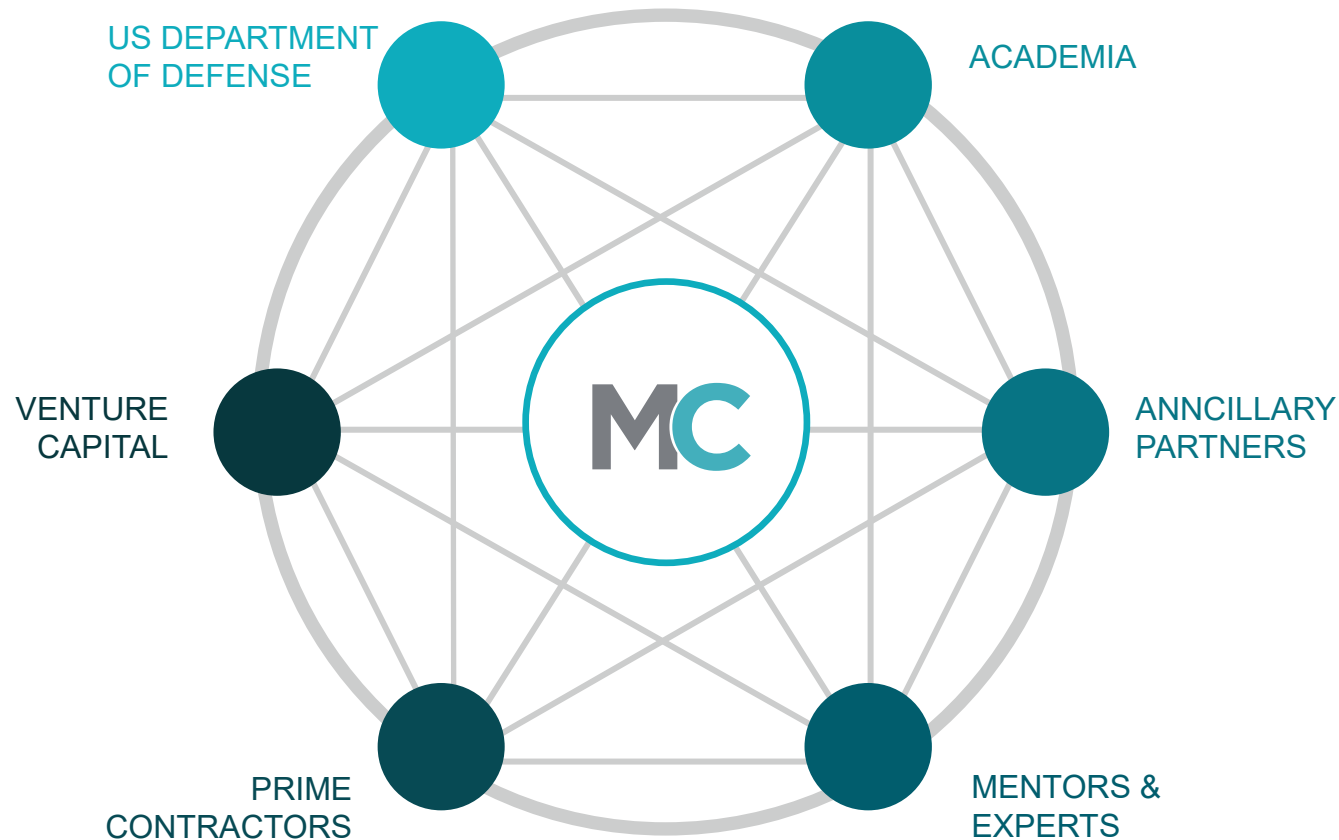
SUPPORT

Business & product development, funding and tech transfer

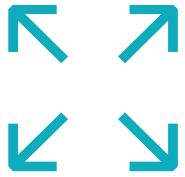
CONNECT

Resources, partners, mentors, customers

“Our mission is to equip bold entrepreneurs to build dual-use technology to drive innovation in the DOD.”



WHY ENGAGE WITH MASSCHALLENGE



**Expand and Influence
Innovation Efforts by Sharing
Voice and Perspectives**



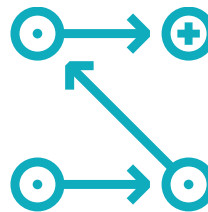
**Desire To De-risk and Invest in
Innovation More Efficiently**



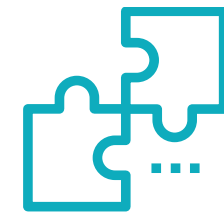
**Increase Exposure to Novel
Technology**



**Access to Vetted
Global Talent Pool**



**Foster Connections with
Entrepreneurs**



**Source Solutions for Strategic
Product Development Needs**

CONNECT

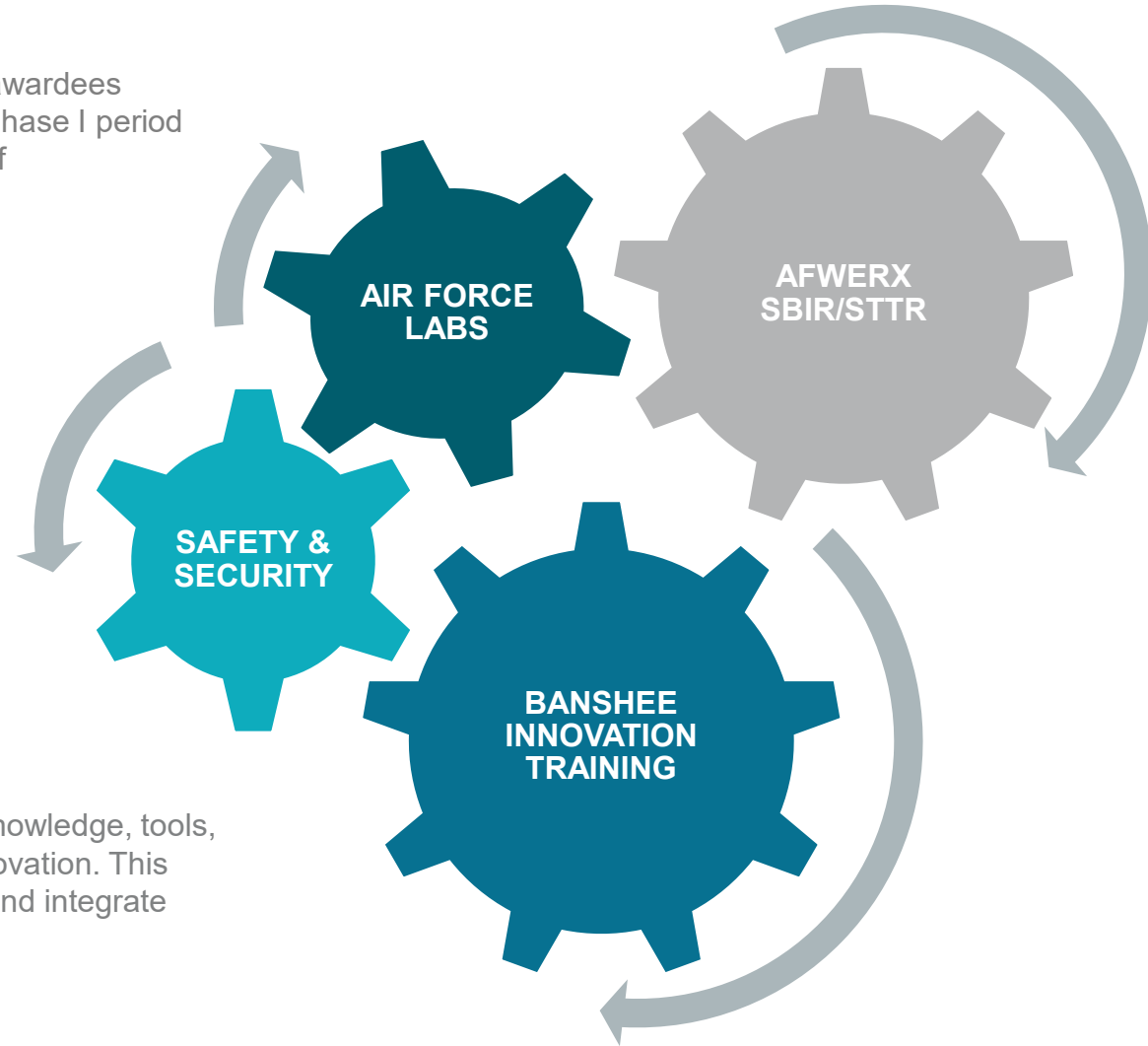
AF Labs supports AFWERX Phase I SBIR awardees with high-relevance to PEOs through their Phase I period of performance, increasing their likelihood of transitioning to a Phase II award.

SUPPORT

S&S track helps build "top of the funnel" educating, connecting, and supporting high potential founders engage with the AFWERX SBIR program.

EDUCATE

Banshee aims to arm our Airmen with the knowledge, tools, and best practices surrounding defense innovation. This creates agile Airmen equipped to evaluate and integrate leading edge technologies at speed.





The Need: Workforce Training Gap & Contracting



The Solution: Air Force Labs & Banshee

We connect Acquisition Airmen to high quality startups

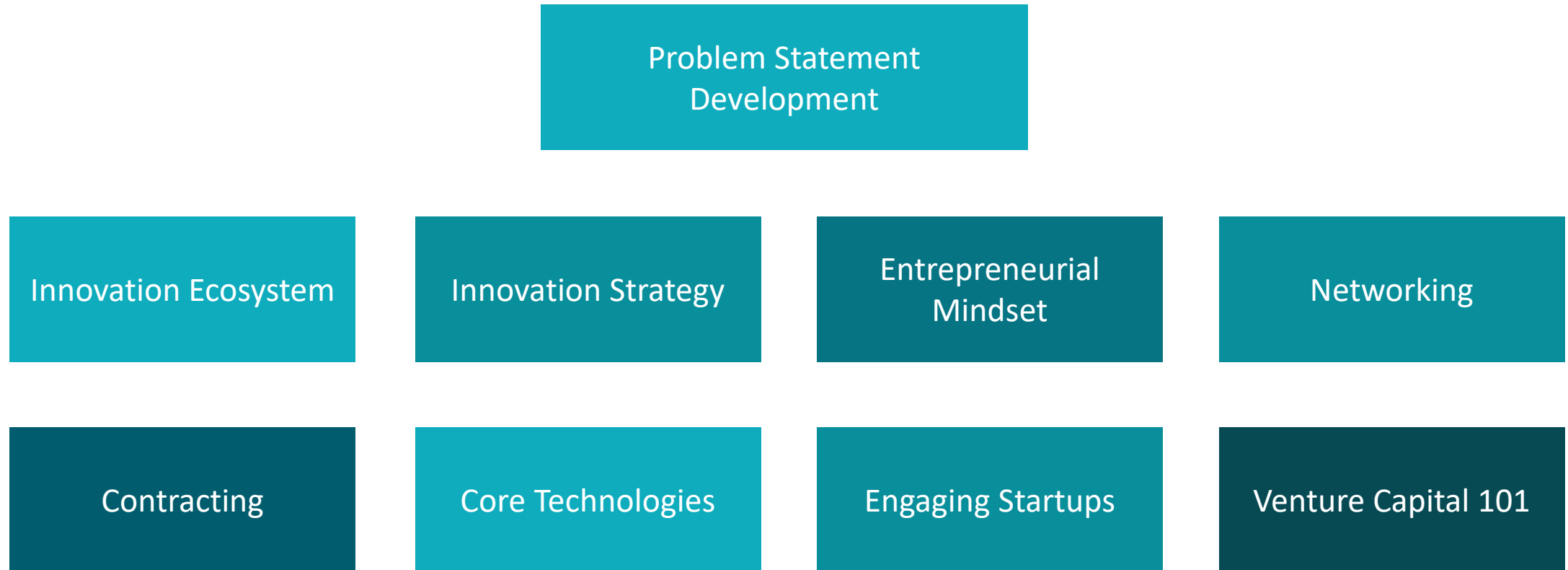
Banshee Training



Air Force Labs



The goal of the Banshee program is to streamline collaboration with non-traditional partners and the innovation ecosystem to give our Airmen a competitive edge





Success Stories/Metrics

The Air Force Labs cohort has achieved measurable traction in its pilot, including:

- **20 AFWERX 20.1/20.3 Phase I SBIR awardees** were selected out of 127 applicants to receive MC Lab support during their Phase I period of performance.
- **15 of 20 AF Labs startups received at least one MOU/TPOCs** from potential Air Force customers, 3 teams awarded during UAS/KR Pitch Days in the span of 2 months, 1 startup was aquired, and 15 teams are working on active Phase IIs.
- **75% Total Transition Rate SBIR/STTR Phase I teams to Phase II award**
 - 9 selected + funded SBIR
 - 5 selected + funded STTR
 - 3 selected – not funded
 - 3 not selected
- 6 Collider Events, 2 Demo Day, 300+ introductions made, 30+ Office Hours hosted.
- Banshee Innovation Training: Trained over 150+ innovation and acquisition focused Airmen in three cohorts **(90 NPS score)**

The 20.1 Air Force Labs cohort was selected by 30+ MassChallenge expert judges that assessed teams based on quality, relevance to AF PEOs, and potential impact of AF Labs.

400+

20.1 Phase I
AFWERX
Awardees

67

Air Force Labs
Applications

34

Dual Use
Startups Judged

10

Air Force Labs
Startup Cohort

9

Phase II
SBIR Awards

20.1 Air Force Labs Cohort



AIR FORCE LABS 20.3 COHORT

The 20.3 Air Force Labs cohort was selected by 50+ MassChallenge expert judges that assessed teams based on quality, relevance to AF PEOs, and potential impact of AF Labs.

400+

20.3 Phase I
AFWERX
Awardees

60

Air Force Labs
Applications

30

Dual Use
Startups Judged

10

Air Force Labs
Startup Cohort

6

Phase II
SBIR Awards

20.3 Air Force Labs Cohort

ATOMIC-6

RHOMAN
AEROSPACE

boxboat

COREPOWER
MAGNETICS

MEASURE

INERGY

kinnnami

Particle

sentenai

OxByEl



“The startups had an accessible subject matter expert at their fingertips on the call every week,” said Capt. Amanda Rebhi, chief innovation officer for Digital and one of the Hanscom mentors to the cohort. “The experts answered questions such as how to format a letter of support, include multiple Department of Defense stakeholders or pursue Phase 3 opportunities.”



“From the ‘round robin’ program kickoff to demo day, the program has been fruitful for us as we’ve worked with companies to gain a deeper understanding of their capabilities, while also ensuring companies have better insight into CROWS challenge sets and where they fit,” – Lyle Hopkins, CROWS Special Project Lead



Scott Cohen, Jaxon.AI CEO, said **this was the best accelerator program that his team has been involved with so far** and that nothing compares to the attention they received and the doors that were opened for them over the past several weeks. “We had a seemingly never-ending list of people who were genuinely interested in what we’ve built and in trying to figure out where it can be used across the DOD,” he said.



“What drew us most to the program was the ability to engage directly with Air Force end users, the C3I&N Directorate, and MassChallenge’s corporate networks, as we look to also integrate our underlying network stack into other use cases in the commercial sectors, such as drones, autonomous systems and smart agriculture,” – Matt Misbin, Lynq

This specialized program identifies, attracts, and supports startups with technology relevant to initiatives in the field of public safety and national security

KEY PARTNERS

BAE SYSTEMS

MITRE



NSIN

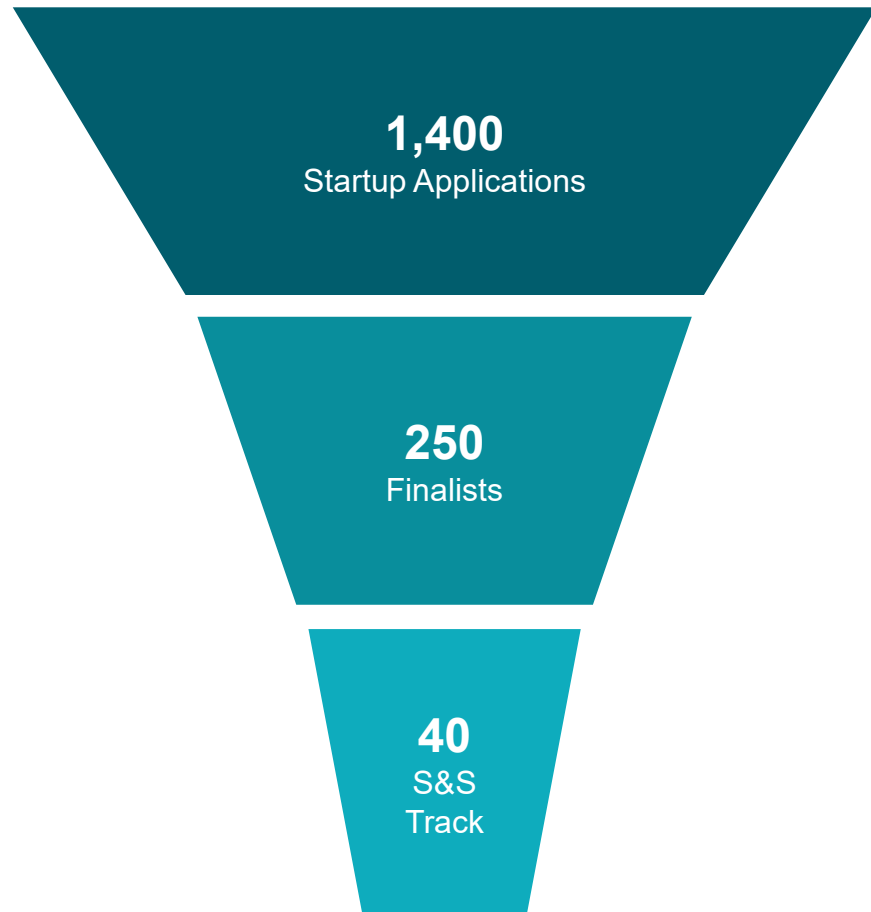
Raytheon

DRAPER

GOALS

- Foster the entrepreneurial spirit within the DOD and Prime Contractors
- Accelerate engagement, impact, innovation and speed to tech transfer
- Deepen startup awareness of industry needs and challenges
- Provided startup teams with the education, connections, and resources to overcome effectively work with government and defense-focused partners
- Drive increased SBIR awards to MassChallenge supported startups

An investment in our program gives your company the leverage of over 5,000 hours spent discovering startups with the greatest potential impact



Sourcing

We recruit early-stage startups with dual-use technology

Vetting

We enlist the support of volunteer experts to assess the quality of every startup that completes an application

Curating

We apply our understanding of DOD Challenge areas to create a sub-cohort of potential Phase I SBIR applicants

SAFETY & SECURITY FOCUS AREAS

Cybersecurity

Quantum

Internet of Things

Robotics

Autonomy

Remote Sensing

Man/Unmanned Teams

AR/VR

Aerospace

Advanced Materials

AI/ML

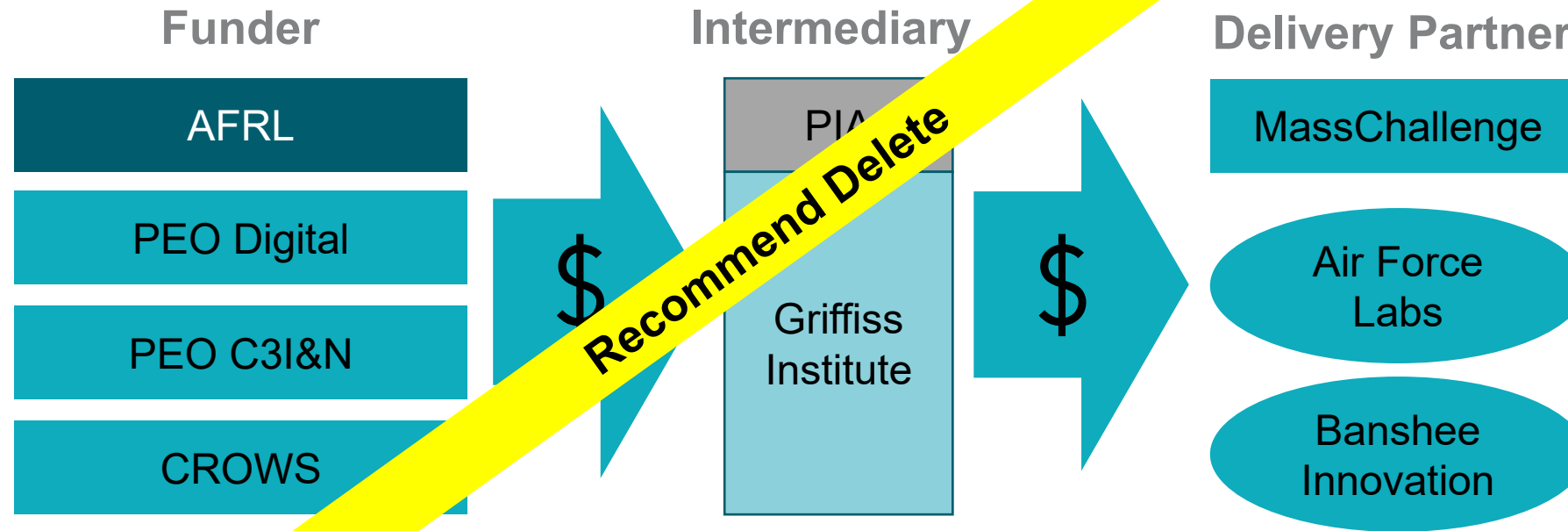
MedTech

Advanced Electronics

Big Data & Analytics

FUNDING AND CONTRACTING MODEL

Delivery of the MassChallenge Air Force Labs and Banshee Innovation Training Program are funded via a PIA (Partnership Intermediary Agreement) through the Griffiss Institute, AFRL, CROWS, PEO Digital, and PEO C3I&N.



Partnership Intermediary Agreements (PIA)- Under the authority 15 U.S.C. 3715, "Use of Partnership Intermediaries"

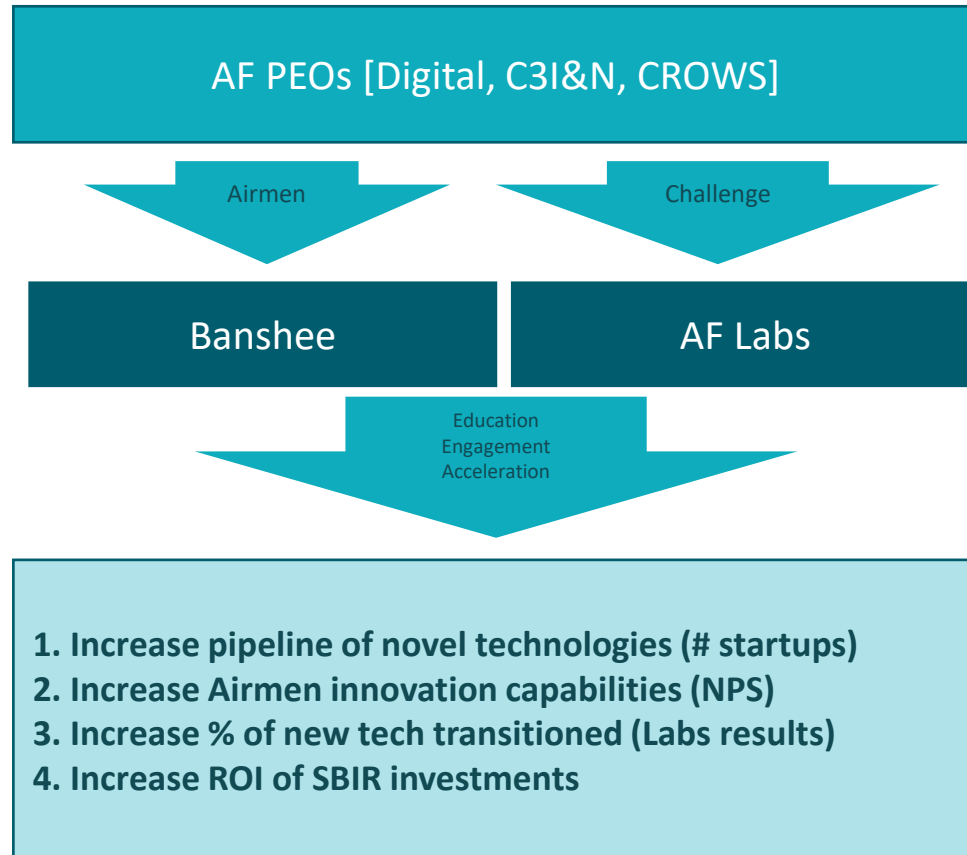
- The Griffis Institute, a non-profit 501(c), is the PIA holder, they are the Partnership "Intermediary", a neutral broker. They provide assistance, counsel, advice, evaluation or otherwise facilitate cooperation with small business firms, institutions of higher education or educational institutions that need or can make demonstrably productive use of technology-related from AFRL Information Directorate, including State programs receiving funds
- While the FAR and its supplements do not apply to PIAs, the contracting model most closely resembles an Indefinite Delivery, Indefinite Order. Once the PIA is established, Cooperative Project Orders (CPO) can be placed against it. It requires an Agreements Officer Warrant to execute a PIA and subsequent CPOs.
- MassChallenge holds a CPO on this PIA.

MC Labs requires certain PEO attributes to be successful in connecting aligned technologies with relevant problem/challenge statements for the program.

PEO(s)	<ul style="list-style-type: none">• Sponsoring PEO• Executive Support
Challenges	<ul style="list-style-type: none">• Problem Statements• Technology Focus Areas
Innovation Champion(s)	<ul style="list-style-type: none">• Internal stewards• Connecting startups to relevant program leads
Capacity	<ul style="list-style-type: none">• Opportunity to engage• User buy in

Current Air Force @MC Labs champions and PEOs include: ASAF(AT&L), AFRL, AFWERX, PEO Digital, PEO C3I&N, CROWS, and Hanscom AFB.

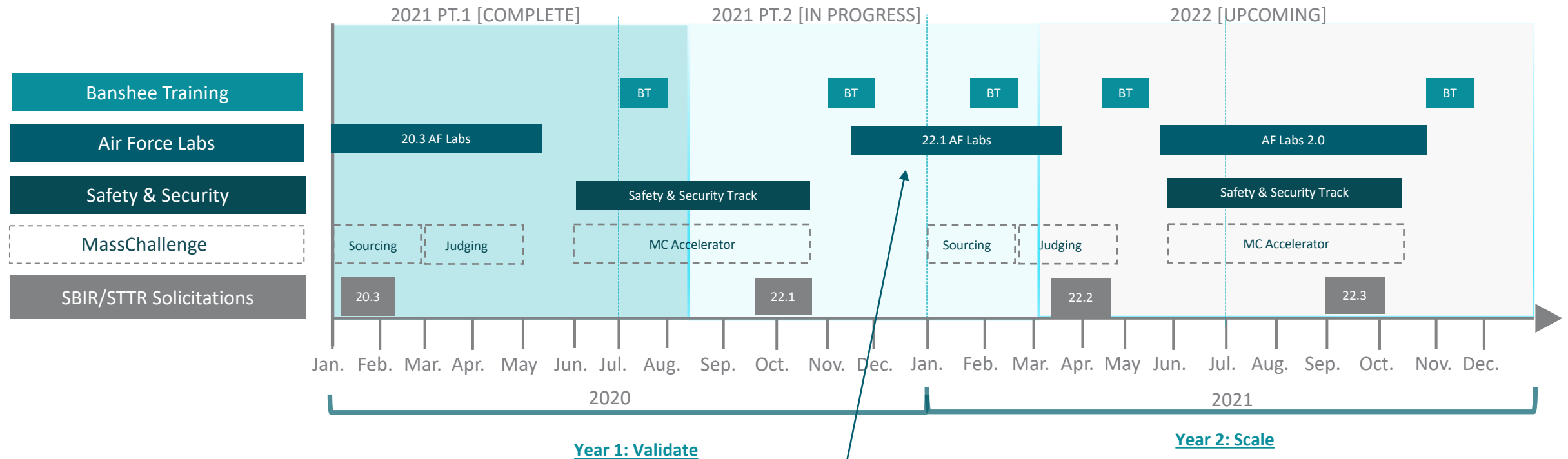
TWO YEAR PILOT – SCALE @ SPEED



MassChallenge sees the outcome of the pilot with the Air Force resulting in Air Force Labs becoming a program that Air Force stakeholders across the Air Force can utilize to support SBIR funded startups aligned with their unique challenge areas. PEO stakeholders provide the challenges and MassChallenge will highlight top SBIR teams and support them through their period of performance, increasing the likelihood of transition, integration, and ROI for the the SBIR programs.

MassChallenge sees the Banshee Program as a critical component, educating innovation focused Airmen to better engage with non-traditional industry partners and top technologies, increasing their effectiveness and speed of impact.

2021/2022 USAF PROGRAM ROADMAP



Apply initial learnings to improve second cycles of Labs and BT. Capture outcomes.

Scale BT via additional sessions. Test digital offering. Expand Labs. Demonstrate economies of experience.

VALUE AND RESULTS FOR KEY STAKEHOLDERS

	Startups	Private	Government
S&S Track	Access to resources, expertise and mentorship	Visibility and low-risk access to vetted, relevant startups	Increased pipeline of commercially viable dual-use ventures
Labs	Targeted support overcoming barriers to successful DoD growth	Targeted access to best-in-class startups	Improved conversion into next-stage collaboration increases ROI
Banshee	Informed and engaged Airmen greases tracks for work with government	Innovation-educated customers; relevant engagement opportunities	Increased internal culture of innovation
Convening	A more connected Defense Innovation ecosystem drives increased awareness, collaboration and ultimately velocity		

We will be successful if we can achieve the following objectives



Expanded the pipeline of dual-use startups



Provide third-party vetting of novel technology



Train entrepreneurs and service members how to effectively engage



Serve as a market maker for DoD challenge areas

IDENTIFY

500+

Dual Use Ventures

SUPPORT

125+

Safety & Security Track Participants

CONNECT

90%

SBIR Phase 2 Transition Rate for 20
Air Force Labs Startups

EDUCATE

120

Innovation and Acquisition Airmen



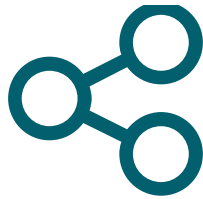
Partnership Review

Discuss Opportunities for Impact



Timeline

Align on Program Sequence (1/01/2020 – 12/31/2021).



Key Stakeholders

Identify Additional Decisionmakers



Questions?



THANK YOU!

To discuss this opportunity further, please contact:

Christian Melton
christian@masschallenge.org
(571) 526-4763



APPENDIX

THE MASSCHALLENGE DIFFERENCE



We see ourselves as an *extension of your team*. Our goal is to accelerate startup creativity towards national security challenges by streamlining engagement with partners to increase outputs and speed to impact.

SURFACE GAPS IN KNOWLEDGE AND OFFERINGS

MASSCHALLENGE

MassChallenge offers corporations a unique vantage point to identify and react to disruptors, sense emerging trends, and proactively evaluate new opportunities.

ACCELERATE TECH SCOUTING

On average, 5000+ startups apply to our programs globally, and we accelerate 400+ startups each year. Our partnerships team helps identify and connect you to startups in our cohorts, across our 2300+ strong alumni network and beyond to address your specific business needs.

VALIDATE VIA HIGH IMPACT WINS

AIR FORCE

MassChallenge equips you to engage at various levels with startups to test new concepts, engage new ideas, and ideate on small challenges to achieve small wins and ultimately validate new hypothesis.

INTEGRATE NEW SOLUTIONS

MassChallenge provides structured supports to accelerate startup-corporate collaboration, empowering you to run pilots and create channels to integrate new solutions into existing products and services.

INDUSTRY & ECOSYSTEM LEADERSHIP

MassChallenge will proactively seek out engagement opportunities with industry leaders and organizations that will bring value back to corporate shareholders. As a partner, corporations will have first insight into industry trends surfaced through MassChallenge's extensive data insights and unique Executive training opportunities.