

Appendix C. SHIELD Executive Order Section #1

Summary for the SHIELD Working Group

April 16, 2026

DRAFT

Summary

Section 1 of Executive Order #648 directs executive offices and departments to "review existing and planned initiatives to identify opportunities to create new economic growth for defense sector organizations."

This task was not assigned to the Strategic Hub for Innovation, Exchange, and Leadership in Defense (SHIELD) Working Group; however, SHIELD has identified the importance of aligning its findings and recommendations with this Executive Office review. Additionally, the 6-month deadline is not a requirement for the SHIELD Working Group findings; however, SHIELD has targeting providing single integrated report to deliver the most value.

Adam Freudberg, Executive Director of the Massachusetts Military Asset & Security Strategy Task Force in the Governor's Office, is the primary point of contact for this effort from the SHIELD Working Group and is supported by EOED, EOLWD, EOE, FFIO, MassTech, and MassDevelopment.

Each Executive Office was asked to complete the following table to evaluate its existing and planned incentives, programs, and initiatives and those of its subordinate agencies to determine their current eligibility and level or outreach in support of defense sector growth. Note that initiatives can include strategy or advisory body discussions (e.g. MA STEM Council, Workforce Skills Cabinet, etc).

All submissions as provided are in the attached excel file. An initial analysis follows.

Executive Summary of Agency Submissions

Supported by Commonwealth AI ChatGPT

The worksheet reinforces that Massachusetts already has a substantial and diverse base of executive-branch programs that can support defense-sector growth. All agency portfolio submissions confirm and reinforce this conclusion by demonstrating that the Commonwealth is not only adjacent to defense-sector innovation, but in several areas is already operating at the center of dual-use technology development.

Across the full dataset, most initiatives remain at least potentially relevant to defense-sector organizations. However, a core structural challenge persists: relevance is not yet consistently paired with deliberate engagement, explicit eligibility pathways, or sustained outreach.

Several initiatives already demonstrate strong traction, particularly in applied AI, advanced computing, robotics, and innovation infrastructure. Combined with earlier strengths in workforce, testing infrastructure, and business development, the Commonwealth is well-positioned to organize and deploy these assets into a more coherent statewide strategy.

At the same time, the worksheet shows that the primary opportunity is not the creation of entirely new programs, but the alignment, activation, and scaling of existing ones.

Existing Initiatives with Strong Success to Date

1. Programs intentionally designed or adapted for defense-sector relevance (MassTech expansion)

The MassTech section represents the most significant evolution in this version of the worksheet and provides the clearest examples of programs that are already operating in a defense-relevant, dual-use framework.

In addition to the previously noted **Applied AI Models Innovation Challenge**, the broader MassTech portfolio now demonstrates:

- A coordinated approach to **AI, advanced computing, and emerging technologies** that are inherently dual-use
- Program structures that support **commercialization pathways** relevant to defense applications

- Existing mechanisms for **industry engagement, consortium-building, and innovation challenges**
- Alignment with key defense-relevant domains such as AI, data infrastructure, autonomy, and advanced manufacturing

What distinguishes successful initiatives is they do not treat defense as a secondary or incidental use case. Instead, they operate in domains where defense applications are a natural extension of core program goals. This is a critical shift from “eligibility” to “intentional inclusion.”

MassTech’s model—combining funding, convening, and ecosystem-building—can serve as a template for other agencies seeking to deepen defense-sector engagement without fundamentally changing their mission.

2. Strong dual-use infrastructure and testing platforms

MassDOT Aeronautics and related efforts remain among the most strategically differentiated assets in the portfolio. The updated analysis continues to show strong momentum in:

- Devens region and Counter Small UAS infrastructure
- Joint Base Cape Cod (JBCC) aviation and autonomy testing opportunities
- FAA UAS test range activity
- Coordination with federal and military stakeholders

These infrastructure assets now have clearer potential connections to **technology development pipelines**, not just testing environments. This creates an opportunity to link R&D, prototyping, testing, and commercialization within Massachusetts.

3. Workforce and talent pipelines with execution potential

Workforce-related initiatives continue to show meaningful alignment with defense-sector needs.

- The **Division of Apprentice Standards** remains a strong pathway for building occupation-specific pipelines (e.g., shipbuilding and advanced manufacturing roles)
- The **Veterans Employment, Education, and Training Program (VEET)** continues to provide a natural bridge between trained talent and defense-sector employers
- Additional opportunities exist to connect these workforce programs more directly to MassTech-supported innovation ecosystems and emerging technology firms

Together, these efforts suggest the foundation for a more integrated **talent-to-innovation pipeline**, particularly in high-skill technical roles.

4. Business development, procurement, and engagement infrastructure

EOED's **Business Front Door** and updated **business development incentives framework** remain critical enabling tools.

- There is now a clearer pathway from **firm identification** → **innovation support** → **scaling and incentives**
- The state has the building blocks of a **full lifecycle support model** for defense-sector firms, from startup through expansion. Close monitoring and continuous improvements will be necessary, based on user feedback of this new offering.

Smaller but important efforts in procurement, supplier diversity, and public-sector engagement continue to contribute to this ecosystem.

5. Strengthened innovation ecosystem as a statewide asset

The Commonwealth's innovation ecosystem emerges as one of the strongest overall themes in the worksheet.

Massachusetts is uniquely positioned at the intersection of:

- Academic research
- Startup formation
- Applied innovation funding
- Industry partnerships

The entries make clear that this ecosystem is not only robust, but increasingly capable of supporting **defense-relevant and dual-use innovation at scale**.

Gaps and Opportunities

1. Outreach remains the most significant cross-cutting gap

Despite the strength of the agency portfolios, the broader pattern across agencies remains unchanged: many programs that are relevant to the defense sector still lack proactive outreach and alignment.

The contrast is now more pronounced. Some like MassTech demonstrate how effective engagement can be achieved, while many programs still rely on passive participation.

Opportunity: expand a coordinated outreach model across agencies, leveraging:

- Business Front Door as an intake mechanism
- SHIELD, led by MassTech as a sector-facing platform
- MassTech as a hub for innovation-focused engagement

2. Eligibility clarity and signaling remain inconsistent

Many programs continue to be technically open but not clearly accessible. Many entries show that **explicit inclusion matters**—when defense relevance is named and integrated into program design, participation becomes more likely.

Opportunity: adopt simple, consistent practices across agencies:

- Explicitly reference defense-sector applicability in program materials
- Include defense-relevant examples and use cases
- Align scoring or evaluation criteria where appropriate

3. Need to connect innovation programs to downstream infrastructure and markets

There are existing **gaps within the innovation pipeline**.

Massachusetts has strong assets in:

- Early-stage innovation (MassTech, universities, startups)
- Testing infrastructure (MassDOT, JBCC, Devens)
- Workforce pipelines (EOLWD, DVS)

However, these are not yet fully integrated.

Opportunity: intentionally connect:

- MassTech-funded innovation → testing environments
- Workforce programs → firms participating in innovation challenges and credentialing/continuing education with programs supported by the Commonwealth
- Business development tools → scaling companies emerging from these ecosystems

4. Lack of a unified operating model across agencies

The updated worksheet reinforces that agencies are operating at different levels of maturity in defense-sector engagement.

MassTech represents a more advanced model, while other agencies are earlier in development.

Opportunity: define a simple statewide operating model that includes:

- Shared definitions and priority areas (e.g., dual-use tech, workforce, infrastructure)
- Standard outreach pathways
- Clear roles for SHIELD, EOED, quasis, and sector-specific agencies
- Mechanisms for tracking participation and outcomes

5. Opportunity to formalize dual-use innovation as a strategic pillar

With the addition of MassTech, dual-use innovation emerges as one of the most compelling and scalable opportunities for the Commonwealth.

Massachusetts has a natural advantage in:

- AI and advanced computing
- Robotics and autonomy
- Cybersecurity and data systems
- Advanced manufacturing
- Talent

Opportunity: elevate dual-use innovation as a central organizing theme of the statewide strategy, aligning:

- MassTech programs
- Academic research
- Startup ecosystems
- Federal and defense partnerships

Bottom-Line Framing for the Report

The worksheet strengthens the conclusion that Massachusetts already possesses the core components of a leading defense-sector innovation ecosystem. In key areas, the Commonwealth is not starting from scratch but is already operating at a high level of capability.

The primary opportunity is to connect and scale these assets. By improving outreach, clarifying eligibility, and aligning programs around a small number of strategic priorities—particularly dual-use innovation, workforce development, and infrastructure—the Commonwealth can

transform a strong but fragmented set of initiatives into a cohesive and nationally competitive defense-sector strategy.