Introduction: Science, technology, engineering, and mathematics (STEM) underpin DoD’s ability to defend the Nation and to assure the vitality of the Nation’s Defense Industrial Base (DIB). Developing a highly competent STEM workforce requires partnerships among government, industry, and academia. Emerging mission requirements continue to pose great STEM workforce challenges for DoD. This Strategic Plan outlines a path forward to ensure that the Department has the STEM expertise necessary to develop technological solutions in an ever-changing threat environment and affords DoD Components the ability to tailor their approach to achieve these objectives.

Vision: A diverse, world-class STEM talent pool and workforce with the creativity and agility to meet national defense needs.

Mission: Ensure the Department has enduring access to a highly competent STEM workforce essential to deliver innovative solutions for the Nation’s current and future defense challenges.

Goals/Objectives:

Goal 1: Attract, develop, and retain a highly competent DoD STEM workforce, based on DoD requirements.

Objective 1.1: Develop and foster an engaged and diverse STEM talent pool. The Department will make proactive investments that strengthen and broaden its STEM competent talent pool across the education continuum to support future DoD workforce needs.

Objective 1.2: Attract and recruit a proficient, agile and effective STEM workforce. The Department will analyze, evaluate, and align current STEM hiring practices, processes, and work environments based on nationally recognized best practices to ensure that the Department has the right people, with the right skills, at the right time, and in the right place.

Objective 1.3: Retain a highly competent and diverse DoD STEM workforce. The Department will ensure a challenging, rewarding, and inclusive work environment to retain its STEM talent. The Department will foster creative and innovative leadership to motivate and engage its STEM workforce. The Department will promote opportunities for education, training, and workforce development to maintain a highly competent and diverse STEM workforce.

Goal 2: Maximize effectiveness of DoD STEM investments.

Objective 2.1: Increase effectiveness of the Department's STEM investments. The Department will increase the effectiveness of its STEM investments to meet DoD STEM workforce requirements using evidence-based practices that align with Federal government guidance.

1 In alignment with the Committee on Science, Technology, Engineering, and Math Education (CoSTEM) efforts.

**Objective 2.2: Leverage DoD STEM investments and initiatives.**
The Department will leverage STEM investments and initiatives, as appropriate, to establish partnerships across the government, industry, and academia to obtain maximum benefit for the Department.

**Goal 3: Codify DoD STEM policy.**

**Objective 3.1: Develop DoD STEM policy and governance to fill identified gaps.**
The Department will verify, update, and draft policy documentation to ensure implementation and execution of the Department’s STEM policy. The Department will propose legislation as required.

**Objective 3.2: Develop DoD STEM Executive Board Reference Guide**
The STEM Executive Board will issue the Reference Guide to support Goals 1 and 2, above.

**Approach:** The STEM Development Office will facilitate the work of the Assistant Secretary of Defense for Research and Engineering (ASD(R&E))’s STEM Executive Board and its Working Group to accomplish the goals and objectives in this Strategic Plan. As a foundation for Goals 1-3, the Board will baseline workforce requirements, investments, and policy.

The STEM Executive Board will be responsible for execution of this Strategic Plan and alignment of the Department’s STEM investments to this plan. The Working Group will report annually on the achievement of these goals and objectives through an Annual Performance Plan and Accountability Report, in accordance with Government Performance and Results Act (GPRA) requirements. Based on these reports, the STEM Executive Board will revise the strategic goals and objectives in this Plan and make data-driven recommendations for subsequent years in alignment with the Program Objective Memorandum (POM) cycle.

**Resources:**
Each STEM Executive Board member is responsible for identifying and allocating resources in support of the performance of goals and relevant objectives of this Strategic Plan. These resources include human capital, analytical tools, information resources (including databases), and funding. Each Component represented by the STEM Executive Board will establish a point of contact or centralized STEM coordination office to be responsible for the Component’s STEM efforts.

**Measures/Metrics:**
The DoD STEM Executive Board and its Working Group will develop performance measures/metrics consistent with GAO and GPRA guidelines. A DoD STEM Implementation Plan will specify the measures/metrics for each goal and objective.
Key Definitions:
DoD Science, Technology, Engineering and Mathematics (STEM)
A modifier used to describe specific kinds of education, training, outreach, workforce
development, employment, and research in the following disciplines and occupations:

- Computer and Information Sciences
- Mathematics and Related Fields
- Life and Health Sciences
- Physical and Geosciences
- Psychology and Social Sciences
- Engineering
- Architecture
- Science and Engineering Technologies/Technicians
- Health Practitioners and Technicians
- Program Management

DoD STEM Workforce
The individuals in disciplines and occupations above comprise the Department’s STEM
workforce.

DoD STEM Investment
A program, initiative, activity or effort for which the primary objective is to attract and prepare
learners at any level to pursue coursework in STEM areas, to improve the capacity of teachers
and institutions to promote and foster learning in STEM fields, and to maintain and advance the
STEM competence of the DoD workforce.

STEM Competent
Having knowledge, skills and abilities to perform STEM work successfully.