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

MISSION STATEMENT
Inspire, develop, and attract the STEM talent essential to deliver innovative solutions for the Nation’s current and future challenges.
I am pleased to present the first *Department of Defense Science, Technology, Engineering and Mathematics (STEM) Education and Outreach Strategic Plan* for 2010–2014. This plan represents the collective thinking of a DoD-wide STEM Board of Directors and more than 90 leaders from across DoD who are committed to creating world-class STEM capabilities for DoD and the Nation. More important, the plan lays out our vision to develop a diverse, world-class STEM talent pool for DoD that will also benefit the Nation.

DoD has a long history of supporting STEM initiatives at local, regional, and national levels. At military installations and DoD laboratories, our scientists and engineers—military and civilian—support science fairs and competitions, mentor our scholarship and fellowship recipients, and partner with science and math teachers in the classroom. Although these individual initiatives are important, they will not be sufficient by themselves to meet the current domestic and global STEM education challenges that weaken our security. To safeguard our Nation’s security, we envision a STEM strategy that is collaborative, integrative, and focused, both across the Department and the whole of government.

A STEM-literate citizenry is critical if the Nation is to compete more effectively in the global marketplace. The production of foreign STEM talent is growing exponentially, and U.S. institutions of higher education are facing greater competition for talent. In addition, global access to leading technology allows competitors to field capabilities in dramatically shorter time frames than in the past. Those challenges affect U.S. security interests, domestically and internationally, and they affect DoD’s ability to optimize discovery and innovation.

With the active commitment of senior leaders, STEM professionals, and public- and private-sector partners, DoD intends to meet its needs while contributing to the development of our Nation’s STEM talent. DoD’s investments will focus on building STEM skills and abilities, improving high school graduation rates, and increasing the percentage of STEM college graduates by 2020. This plan is a vital first step in meeting our workforce needs and addressing our challenges and the Nation’s. It creates a new path forward shaped by a common vision and goals across the entire education continuum. It also provides the necessary direction to enhance our domestic capabilities while being mindful of the growing pressure of global STEM talent and capabilities.

I am dedicated to ensuring that DoD’s efforts align with the government’s STEM strategy, as well as to leveraging public- and private-sector partnerships. U.S. STEM talent is a national asset, and DoD will not lose sight of this fact. Thank you for your interest. I look forward to working with you on this vital issue.

Zachary J. Lemnios
Director, Defense Research and Engineering
OUR COLLABORATIVE PROCESS

The STEM Development Office based this strategic plan on priorities established and articulated by the DoD STEM Education and Outreach Board of Directors. Established in July 2009 by the Principal Deputy to the Director, Defense Research and Engineering, the Board of Directors consists of 27 Senior Executive Service members and senior leaders from across the Department. The Board of Directors appointed more than 90 civilian and military service representatives to help guide the development of the strategic plan from its beginning. This group of program leaders, administrators, and others involved in education and outreach was instrumental in creating this plan.

The Board members have endorsed the DoD STEM Education and Outreach Strategic Plan framework. Their names and titles are provided below:

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Principal Deputy
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Walter F. Jones, Ph.D.
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John C. Inglis
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INTRODUCTION

The National Defense Education Act, signed into law in 1958, authorized DoD to, among other things, increase the flow of talent into science and engineering, fund enrollment in higher education, and enhance public understanding of science and technology.\(^1\) The act came on the heels of the Soviet Union’s launch of the Sputnik I satellite and the resulting commitment by the United States to regain dominance over its Cold War adversary in scientific and technological disciplines.\(^2\)

Once again, we find ourselves in the position of losing ground globally with regard to STEM expertise in the U.S. workforce and academia. Of particular concern is the condition of our Nation’s academic STEM performance. Another important concern is our global competitors’ increased investment in STEM education and training and their development of a STEM workforce. However, DoD has valuable experience to counter these concerns. Having developed and sustained the greatest military force in the world for decades, DoD will use our knowledge and expertise to build a larger pool of STEM talent that meets our Nation’s education and workforce needs and strengthens our national security.

In response to DoD’s need for a STEM-capable workforce, DoD will begin by strengthening our STEM education and outreach portfolio. This strategic plan establishes the framework for doing so. Built on an assessment of the strategic environment, the plan identifies a DoD-wide direction for inspiring, developing, and attracting STEM talent by delivering innovative solutions.
THE CHALLENGES

Global Pressure

Globally, U.S. leadership in STEM is diminishing. As an example, in 1970, the Organisation for Economic Co-operation and Development (OECD) found that the United States had the highest high school graduation rate of 23 nations. By 2007, the United States, with a graduation rate of 78 percent, ranked eighteenth of 25 nations.\(^3\)

Foreign nations have expanded their educational capabilities to the point that they are surpassing U.S. capabilities. In 1985, China granted about the same number of first engineering degrees as the United States, but granted nearly four times as many in 2005.\(^4\) In addition, a comparison of college graduation rates for all fields among OECD member countries showed that the United States fell from first place in 1995 to fourteenth in 2007. This drop was not due to fewer U.S. students earning degrees above an associate’s degree; that number grew from 33 percent in 1995 to 37 percent in 2007. Rather, the drop was due to the growth in graduation rates by the 25 other countries in OECD’s study.\(^5\) The bottom line is that other countries are producing many more scientists and engineers than the United States.

Challenges within U.S. Education

The U.S. public education system is challenged by an increasingly diverse student body; increased graduation requirements; and outdated, underfunded, and poorly maintained facilities for science study.\(^6\) Also, access and opportunities for all students to develop STEM skills, abilities, and attributes are uneven across the United States. For instance, most low-performing schools are in areas with high levels of poverty and high percentages of minority students.\(^7\)

Education research demonstrates that an individual’s education does not evolve in a vacuum. Instead, it is an “interplay between a variety of person, environmental, and behavioral variables that are assumed to give rise to people’s academic and career-related interests, choices and performance outcomes.”\(^8,9,10\)

One element influencing student progression is the education and continued professional development of STEM teachers. Those teachers who are not proficient in STEM and have not maintained the necessary knowledge and skills have been shown to be less effective. As a result, students are less likely to close achievement gaps in STEM and are less prepared for success in the STEM workforce.\(^11\) The situation is exacerbated by the limited professional development opportunities for teachers, due to the traditional school calendar and heavy teaching schedules at our schools.

Research indicates that STEM success—from precareer through employment—requires high-quality experiences along the education continuum. In our current environment, however, elements essential to this continuum need bolstering.

We now have a body of knowledge that confirms the importance of a continuum of learning experiences and opportunities, built on critical elements that enable success along academic and career pathways. We can use that knowledge to create new, high-quality STEM experiences and to expand opportunities to attain positive experiences. For students, service learning and well-designed mentoring programs are effective in developing STEM talent. Mentors, especially parents, teachers, and STEM professionals, can be significant in shaping career success.\(^12\) It can be especially important when mentor and mentee share salient group identity characteristics or work toward developing qualities that empower the mentee.\(^13\) The preparation of K-12 teachers is another component; more evidence-based professional development support is needed.

These elements influence educational and workforce development, especially in STEM disciplines and fields that are valuable to DoD. Current DoD STEM education and outreach experiences enhance these components and build students’ interest, motivation, and efficacy.
Challenges Facing DoD

Beyond seeking to impact U.S. education and individual students, teachers, communities, and the public, the STEM Strategic Plan and DoD STEM education and outreach efforts take into account a variety of challenges facing the DoD STEM workforce:

• **Diminishing STEM capabilities in the workforce.** The average age of federal scientists and engineers continues to rise. Workers age 45 and older constituted 57.8 percent of all federal scientists and engineers in 2005. A significant portion of these employees, particularly those in DoD science and technology laboratories, will likely leave by 2020 through retirement or attrition. The current workforce also lacks diversity; for example, the proportion of women scientists and engineers in DoD laboratories has not kept pace with the proportion in the U.S. workforce as a whole. Added to this are intense public- and private-sector recruitment and competition for the new hires emerging from the STEM workforce talent pool.

• **Hiring practices.** The government’s hiring procedures have been criticized as being cumbersome and taking too long from initial engagement to hiring. The Office of Personnel Management recognizes that effective hiring practices can increase mission fulfillment and is reforming hiring practices in partnership with agencies.

• **Competition for world-class talent.** The difference in starting salaries between the private ($49,000) and public ($45,000) sectors is a systemic challenge for DoD. This difference is significant for many young people, particularly those with student loans that average about $23,000. DoD faces the additional hiring hurdle of security clearance requirements that often exclude highly talented individuals who are not U.S. citizens. Finally, we lack good data on the quality of the STEM workforce; specifically, the Defense Manpower Data Center does not maintain data on educational disciplines, educational institutions, and employment history prior to DoD employment.

• **Laboratory revitalization.** DoD laboratories have a vital role in creating innovative solutions to meet our defense needs. Employing more than 35,000 scientists and engineers, the laboratories are a nexus of discovery and innovation. A technically strong and productive laboratory system is essential to attracting and retaining world-class STEM professionals.

An initial inventory of current STEM initiatives demonstrates the breadth and depth of the Department’s efforts to build its current and future STEM workforce. We must now ensure access to those initiatives by a larger and more diverse group of students, parents, teachers, counselors, and communities.
THE FRAMEWORK FOR MEETING THE CHALLENGES

Secretary Gates has provided clear direction regarding his intentions and expectations for DoD. He has outlined a vision and a change of direction to an agile, flexible, and extremely versatile set of capabilities, and has directed DoD to develop a “portfolio of military capabilities with maximum versatility across the widest possible spectrum of conflict.” To fulfill this mission, DoD requires a world-class STEM talent pool consisting of civilians and military personnel.

A critical factor to enhancing DoD and national security capabilities is a STEM-literate citizenry on which we can draw to meet both military and civilian workforce needs. To accomplish this, the general public must become part of the solution, and students and teachers must become active participants in STEM early and often throughout their academic careers. In this way, the U.S. workforce will be in a better position to compete more effectively in the global marketplace.

As a starting point for building the needed STEM expertise, we have a body of knowledge that supports a continuum of learning experiences and opportunities. We also have an understanding of critical elements that enable academic and career pathways. For example, well-designed mentoring can provide individuals with high-quality STEM experiences and expanded opportunities for success. The influence of STEM professionals and of role models, such as parents and teachers, is significant in shaping career success. Well-prepared teachers and faculty across all levels of education also are essential to overcoming complex educational challenges.

In developing this plan, DoD has benefited from the advice of internal and external subject matter experts. DoD recognizes that developing a sustainable world-class STEM workforce requires partnerships among government, industry, and academia to tap the full strength of America and its people. Our vision, mission, goals, and objectives provide a way forward to ensure that the Department and our Nation have the STEM expertise necessary to maintain our global STEM leadership.
## Vision
A diverse, world-class STEM talent pool with the creativity and agility to meet national defense needs.

## Mission
Inspire, develop, and attract the STEM talent essential to deliver innovative solutions for the Nation’s current and future challenges.

## Goals

### Inspire
A Nation of students, parents, teachers, and the public inspired to engage in STEM discovery and innovation.

#### Objectives
- Increase the awareness and importance of STEM and foster discovery and innovation.
- Provide opportunities and resources for learning and personal growth that stress academics, knowledge, skills, abilities, and attributes required for STEM discovery and innovation.
- Strengthen, expand, and enable communities of stakeholders to provide a continuum of formal and informal STEM programs and opportunities.
- Directly engage populations underrepresented in STEM fields.

### Develop
A future world-class STEM workforce talent pool.

#### Objectives
- Identify current and future STEM workforce needs.
- Increase the diversity of participants in STEM programs.
- Build a portfolio of DoD STEM programs to cultivate the desired competencies of the talent pool.
- Increase the number of military personnel with STEM competencies that transition into the defense workforce.

### Attract
A dynamic and innovative work environment in DoD that attracts and retains world-class STEM talent.

#### Objectives
- Identify programs and best practices that attract and retain world-class STEM talent.
- Ensure a DoD work environment that attracts and retains world-class STEM talent.
- Strengthen and promote the awareness of STEM-relevant opportunities within DoD.

### Deliver
A coordinated, collaborative, and cohesive set of DoD STEM programs that inspire, develop, attract, and retain world-class STEM talent.

#### Objectives
- Develop a systematic approach to identify STEM education and outreach programs across the DoD components and agencies.
- Provide and maintain a publicly accessible inventory of DoD STEM programs.
- Implement a STEM inventory communications strategy.
GOALS AND OBJECTIVES

INSPRIRE: A Nation of students, parents, teachers, and the public inspired to engage in STEM discovery and innovation.

The engagement of demographically diverse partners within communities provides a basis for creating, supporting, and nurturing interest in STEM. Scalable and flexible initiatives rooted in STEM and based on educational science can help students at all levels develop academic skills and influence interest in future careers. Offering and maintaining linked opportunities—or a continuum of high-quality experiences—are important. Building a continuum of opportunities can start with the expansion of current programs identified through evaluations and assessment as being effective.

Opportunities also arise for the extension or adaptation of those programs to other communities near military, laboratory, or other DoD facilities. At the same time, collaboration with scientific bodies and teaching groups is an additional enabler that can extend interest.

Existing activities and potential ideas provide opportunities to build and foster a continuum of inspirational activities. DoD’s active role in STEM-based competitions for teams and individuals is one example. Competitions permit the demonstration of creativity and innovation, while challenging participants and supporting their interests and growth. We recognize that competitions appeal primarily to already motivated students. However, DoD’s support of competitions can seed individual interest in STEM careers through the involvement of our scientists and engineers as mentors and judges. Competitions can also serve as an important contribution in a continuum of opportunities that link classroom learning to other external activities.
Leveraging networks of collaborators, scientific bodies, and teaching groups is another step to enhancing STEM awareness. Schools, the government, the private sector, associations, and other STEM advocates are all part of this collaborative team.

Teachers play a critical role in developing student interest and skills in STEM. Professional development in STEM is vital for teachers in urban, small-city, and rural districts, especially those that are near military installations that serve high numbers of underrepresented students. As previously indicated, teachers play a powerful and inspirational role as mentors. They can also serve as a connection point between their students and STEM professionals who can share their passion, real-world applications of STEM, and career knowledge.

As individuals are inspired to engage in STEM, assessment and evidence will serve to aid our focus on activities that more effectively inspire interest in STEM.

**DESIRED OUTCOME**

Inspiring STEM interest is complex and requires a continuum of programs that are well designed, evaluated, and research-based. A continuum of opportunities, such as those described above and available from one level or academic grade to the next, is a foundation for increased interest in STEM fields and disciplines and increased awareness of the potential of STEM studies leading to successful careers. Creating opportunities and maintaining STEM interest will ultimately lead to reducing the risk of individuals dropping out of the STEM pipeline and inspiring future STEM leaders.

**OBJECTIVES**

*Increase the awareness and importance of STEM and foster discovery and innovation.*

DoD will increase the public’s knowledge of STEM opportunities and of the critical importance of STEM education to our economy and national security. If students are to view the pursuit of STEM disciplines as valued endeavors and understand the rewarding opportunities that are possible, they must be able to obtain direct experience and see themselves in such work. Many students need role models to envision themselves in STEM roles. DoD will provide up-to-date, practical information, guidance, and support to parents, teachers, and other influential parties to stress the criticality of STEM literacy.

DoD will promote its STEM education programs as part of a coordinated effort to increase interest in STEM. That effort will build upon the study of sustained mentorship and role-model programs and on professional development opportunities for teachers. Online communities also offer the potential for information exchange and learning. DoD will study, assess, and combine these strategies.

*Provide opportunities and resources for learning and personal growth that stress academics, knowledge, skills, abilities, and attributes required for STEM discovery and innovation.*

Current initiatives and the establishment of new initiatives where needed can encourage participation in STEM disciplines and fields, with a focus on the prerequisites for success. We will build on the cooperative development of curriculum materials that engage students in active, in-depth, hands-on STEM learning projects and that stimulate their interest. The STEM Development Office will examine the potential for special study centers, summer programs, the use of DoD STEM personnel as mentors, and extended professional development opportunities for teachers.
Strengthen, expand, and enable communities of stakeholders to provide a continuum of formal and informal STEM programs and opportunities.

In building a continuum, DoD will seek to leverage local public K–12 initiatives with proven successes, especially those that may enrich the communities near military, laboratory, or other DoD facilities. This effort will also establish a foundation for creating a network of STEM advocates to foster public and student interest in STEM and guide DoD’s progress. Establishing a strong network is key to supporting a continuum that sustains students’ participation.

Directly engage populations underrepresented in STEM fields.

DoD will address a broad range of audiences and will work to coordinate and strengthen broader access to DoD STEM programs. One approach is to create or extend professional development and mentoring opportunities for teachers in schools that serve high numbers of underrepresented students and are near our bases and laboratories. Middle and secondary school teachers can then be readily connected to mentors, especially those advocates who are themselves STEM workers from underrepresented populations.

DEVELOP: A future world-class STEM workforce talent pool.

Our national defense depends upon a diverse pool of world-class STEM talent. The growth of foreign capabilities and uncertain futures highlight the need for diverse approaches and yet-to-be-realized innovative capacities.

Understanding the supply of available STEM expertise is critical, as is DoD’s own need for scientists, engineers, and mathematicians. Consideration of current workforce demographics and future workforce requirements will enable us to identify and address current and projected workforce gaps.

One way to address the gaps is to establish a research-based portfolio of programs that can be tailored to develop the competence levels of current and potential STEM talent. The implementation of solitary activities, without cross-linking them throughout a continuum, can be ineffective. To attain success, DoD needs a strategy to meet the needs of diverse participants by customizing developmental activities and including sound career development practices along a continuum.

Partnerships can enable this effort. For instance, DoD will expand its relationship with the Department of Defense Education Activity and with Local Education Agency schools. Partnerships like this can help the STEM Development Office gather and establish best practices and processes for engaging other groups and learning from successful models for partnered education to build workforce capabilities. These partnerships will enable the development of a collective understanding of workforce needs and capabilities.

DESired OUTCOME

Developing STEM capabilities and increasing the number of future scientists and engineers is a priority. Current and future innovative capacity rests on DoD efforts linked along a continuum with government, industry, and additional public- and private-sector partners. The desired outcome is the development of STEM competencies and a highly qualified STEM workforce for DoD and the Nation.
OBJECTIVES

Identify current and future STEM workforce needs.

DoD will regularly assess its STEM workforce needs in correlation with the U.S. STEM student population. This will require coordination and collaboration across the military services and DoD agencies. The assessments will enable us to understand the demographics of the current workforce and to define workforce needs. DoD’s STEM strategy will also identify and address current and projected STEM workforce gaps.

Increase the diversity of participants in STEM programs.

To leverage, identify, and attract demographically diverse STEM talent, DoD will expand the reach and influence of its STEM education and outreach programs. Across the United States, access to and opportunities for learning can be unequal, with schools in depressed socioeconomic areas being notably at a deficit. DoD will encourage the engagement of U.S. citizens, particularly women who have been historically underrepresented in STEM careers.

Build a portfolio of DoD STEM programs to cultivate the desired competencies of the talent pool.

DoD will enhance its current programs and establish new initiatives to improve participants’ STEM competencies.

Aligning the STEM competencies of current and future talent with DoD’s national defense strategies is an important task. A portfolio of effective programs will be essential.

To build that portfolio, the STEM Development Office will assess the inventory of DoD initiatives and make recommendations. It also will gather and communicate best practices and research.

Increase the number of military personnel with STEM competencies that transition into the defense workforce.

DoD will leverage military personnel who are departing from active duty and who are technically trained in fields vital to national security. These individuals are a significant source of STEM talent unique to DoD. The SMART scholarship program is one mechanism for enhancing DoD’s STEM workforce by providing educational and career opportunities to those personnel.

ATTRACT: A dynamic and innovative work environment in DoD that attracts and retains world-class STEM talent.

To fulfill its mission of ensuring national security now and in the future, DoD needs innovative technologies and capabilities. It also needs world-class scientists, technologists, engineers, and mathematicians to enable this mission.

As warfare, emerging threats, and surprise capabilities expand, the assessment, examination, and recognition of the types of skills and experiences that DoD requires are crucial. Complementary to this is DoD’s recognition of the fundamental incentives and work environment needed to attract and retain world-class STEM talent.

DoD needs vision, leadership, and resolve to eliminate and overcome cultural and environmental barriers that may hamper its ability to attract and hire potential employees and to retain current personnel. Marketing and communication initiatives targeted at the current and next-generation workforce also are important.
DESIRED OUTCOME

Meeting DoD’s mission to ensure the security of our Nation requires world-class STEM talent. Creating and sustaining an environment that attracts and retains this talent is vital to our mission.

OBJECTIVES

Identify programs and best practices that attract and retain world-class STEM talent.

Data collected from the public and private sectors will provide understanding of innovative work environments, particularly characteristics that are most effective for attracting and retaining world-class STEM talent. Examples of such characteristics are the availability of resources, support from senior leaders, policies and support programs, rewards and recognition, and compensation.

Ensure a DoD work environment that attracts and retains world-class STEM talent.

Identifying programs and best practices will help DoD form the foundation for developing policies and programs essential to building an attractive work environment that facilitates the retention of world-class STEM personnel. Pilot programs designed around innovative work environments can operate within select organizations to generate initial results. A volunteer organization with sufficient resources and authority, for example, could result in a pilot environment to implement desired attributes. The ability to hire world-class STEM personnel and partner with a laboratory or product center on technical challenges that require innovative solutions is an additional element of this objective.

DoD will analyze the performance, successes, and failures of innovative work environments to develop best practices for a more expansive effort and for application to other organizations.

Strengthen and promote the awareness of STEM-relevant opportunities within DoD.

Upon establishing an attractive work environment capable of retaining world-class STEM personnel, DoD will implement integrated communication and marketing strategies. Those strategies will use various methods to describe innovative practices within DoD and opportunities for prospective employees. DoD also will leverage partnerships with universities and innovative private-sector entities to create solutions for DoD and the Nation.

DELIVER: A coordinated, collaborative, and cohesive set of DoD STEM programs that inspire, develop, attract, and retain world-class STEM talent.

DoD’s STEM initiatives occur at military bases and laboratories, in public and private schools, and through community events and partnerships across the United States and in Puerto Rico. Certain STEM initiatives span the education continuum—from pre-kindergarten to adult. Other initiatives expand partnerships with our military academies and with academic institutions, engaging students at all levels—from undergraduate to faculty. DoD also engages industry and nonprofit organizations. This breadth reflects DoD’s commitment to developing STEM talent across all educational and professional levels.

DoD has developed a preliminary inventory of STEM initiatives. The inventory contains more than 100 DoD STEM initiatives. Many are supported and conducted by our own scientists and engineers. A more complete Web-based inventory will capture details on additional efforts to inform DoD, our partners in government and the private sector, and multiple audiences, including teachers, parents, community leaders, and students.

Program leaders can also leverage this knowledge to coordinate their efforts to achieve efficiencies through alignment, communication, collaboration, and centralization of processes, wherever possible. In addition, teachers and other educators can use this database to access programs and expertise.
**DESIRED OUTCOME**

An inventory of DoD STEM programs is crucial for fostering cooperation across the Department, the whole of government, and public and private organizations. It can also underpin other imperatives across the DoD enterprise, as well as be a mechanism for students and others seeking a one-stop resource for DoD opportunities.

**OBJECTIVES**

*Develop a systematic approach to identify STEM education and outreach programs across the DoD components and agencies.*

DoD will establish a standardized process for capturing STEM education and outreach information from across the Department. The STEM Development Office will lead this process, creating a Web-based tool that will allow DoD STEM program leaders to submit information about their programs.

*Provide and maintain a publicly accessible inventory of DoD STEM programs.*

The STEM Development Office will make DoD’s inventory of STEM programs publicly available and accessible, and it will maintain the database of programs. The database will be useful to a diverse range of audiences seeking information on specific programs and subject areas in specific locations.

*Implement a STEM inventory communications strategy.*

DoD will implement a communications strategy to increase awareness of and access to the STEM inventory. It will promote the inventory as the authoritative source of information for students, parents, and teachers seeking facts about DoD’s STEM programs.

The STEM Development Office will lead DoD and intergovernmental summits to establish a transparent, forward-looking framework for current and future STEM investments. DoD’s inventory of STEM programs can be a way to engage participants.
NEXT STEPS

This strategic plan establishes the framework—vision, mission, goals, and objectives—for the development of the DoD-wide STEM implementation plan. The implementation of research-based, integrated marketing and communication principles is immersed within the goals of this plan.

In the implementation plan, the STEM Development Office will define specific initiatives and measures that will actualize the goals and objectives described in this strategic plan. It will capitalize on our intent to develop informed strategies and make research-based decisions. Continued focus on what we do and whom we serve will inform these initiatives. The plan will also leverage broad and local relationships at all levels of DoD; across the whole of government; with private-sector entities, professional organizations, and academia; and with students, parents, teachers, mentors, counselors, schools, and entire communities. Finally, it will foster internal alignment, as well as external partnerships, to inspire and develop interest in STEM disciplines, fields, and careers.

The STEM Development Office will lead STEM education and outreach for the Department and will serve as a central resource for DoD STEM initiatives. Accountability and performance data are cornerstones of our implementation efforts. In addition to the STEM strategic and implementation plans, the STEM Development Office will produce an annual STEM plan and performance report to inform Congress, DoD leaders, and the public of our efforts and accomplishments.
NOTES