

# SETWAS

## Executive Summary Briefing of USA SMDC Pilot Program for Congressman Elijah Cummings

Science, Engineering, Technology, and  
Workforce for America's Security (SETWAS)

# University Consortium Pilot Program

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## Agenda

- **Purpose**
- **Workforce Challenges**
- **Approach**
- **Program Implementation**
- **Objectives**
- **Status**

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## Purpose

- **Provide information briefing on the US Army Space and Missile Defense (SMD) – led Pilot University Consortium Program for Science, Engineering, Technology and Workforce for America’s Security (SETWAS)**

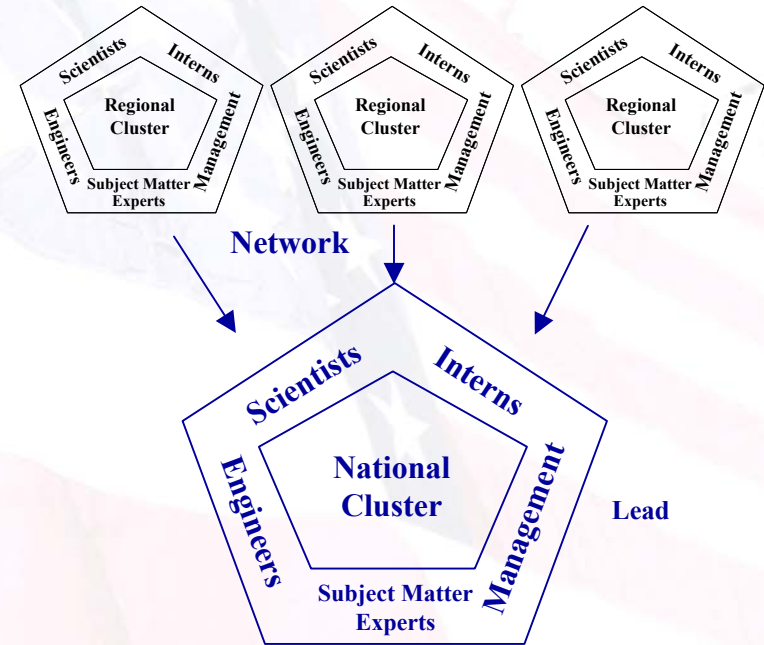
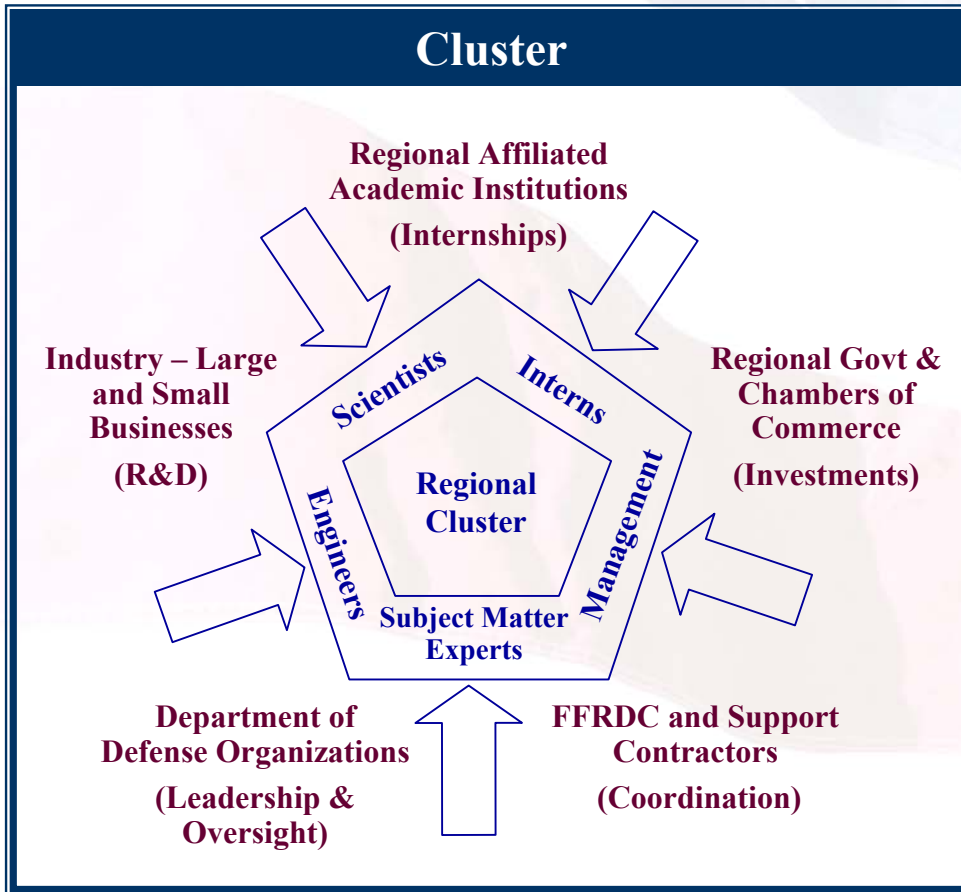
## Challenge

- **Increased competition for diversified technical talent with U.S. Citizenship and Security Clearances**
  - Demand by National Defense Outpacing Output of Top-Tier Engineering Institutions
- **Most U.S. Aerospace workers over age 45 will leave the field in next six years**
  - Over 6 million aerospace jobs will open up with no US Citizens being trained to fill them
- **Next generation of Scientists and Engineers?**
  - Aerospace engineering degrees to U.S. citizens dropping
    - Number of degrees cut in half from 1991 to 2000
    - Numbers continuing to decline
  - In 2000 the U.S.
    - Graduated 80,000 engineers and computer scientists
    - Imported 90,000 engineers and computer scientists

**Our policymakers need to acknowledge that the nation's apathy toward developing a scientifically and technologically trained workforce is the equivalent of intellectual and industrial disarmament and is a direct threat to our nation's ability to survive.**

The Final Report of the President's Commission on the Future of the United States Aerospace Industry, Recommendation 8, November 18, 2002

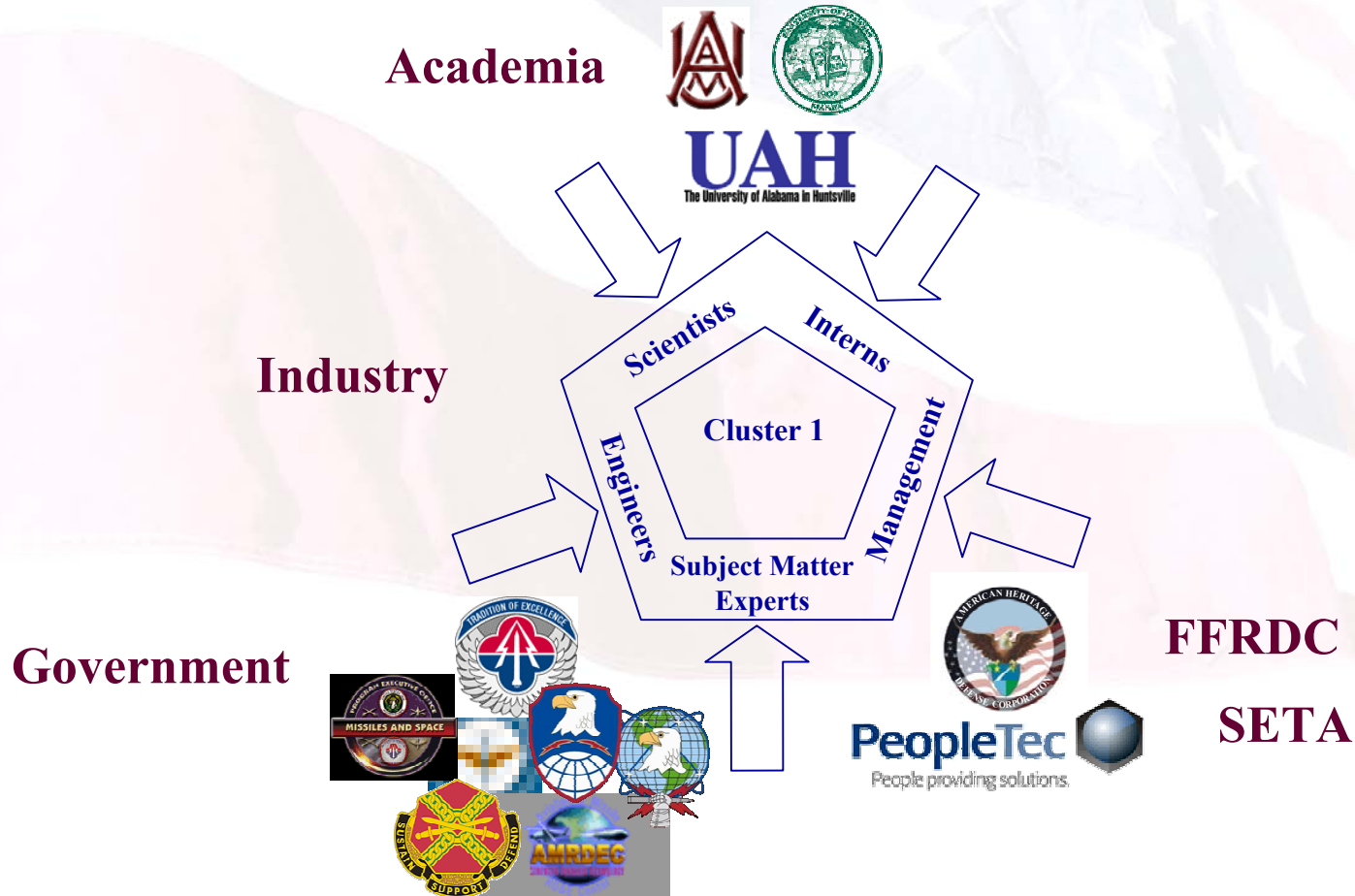
## Proposed Approach



- Focus Regional Clusters on RDT&E; site facilities at alliance academia.
- Network Regional Clusters into National Cluster.
- Steer best and brightest scientists and engineers to replenish workforce
- Expand pipeline for production of American Citizen scientists and engineers

**Establish Cluster of Government, Industry & Academia R&D Infrastructure**

## SMDC Pilot Program – Cluster 1



## Program Overview

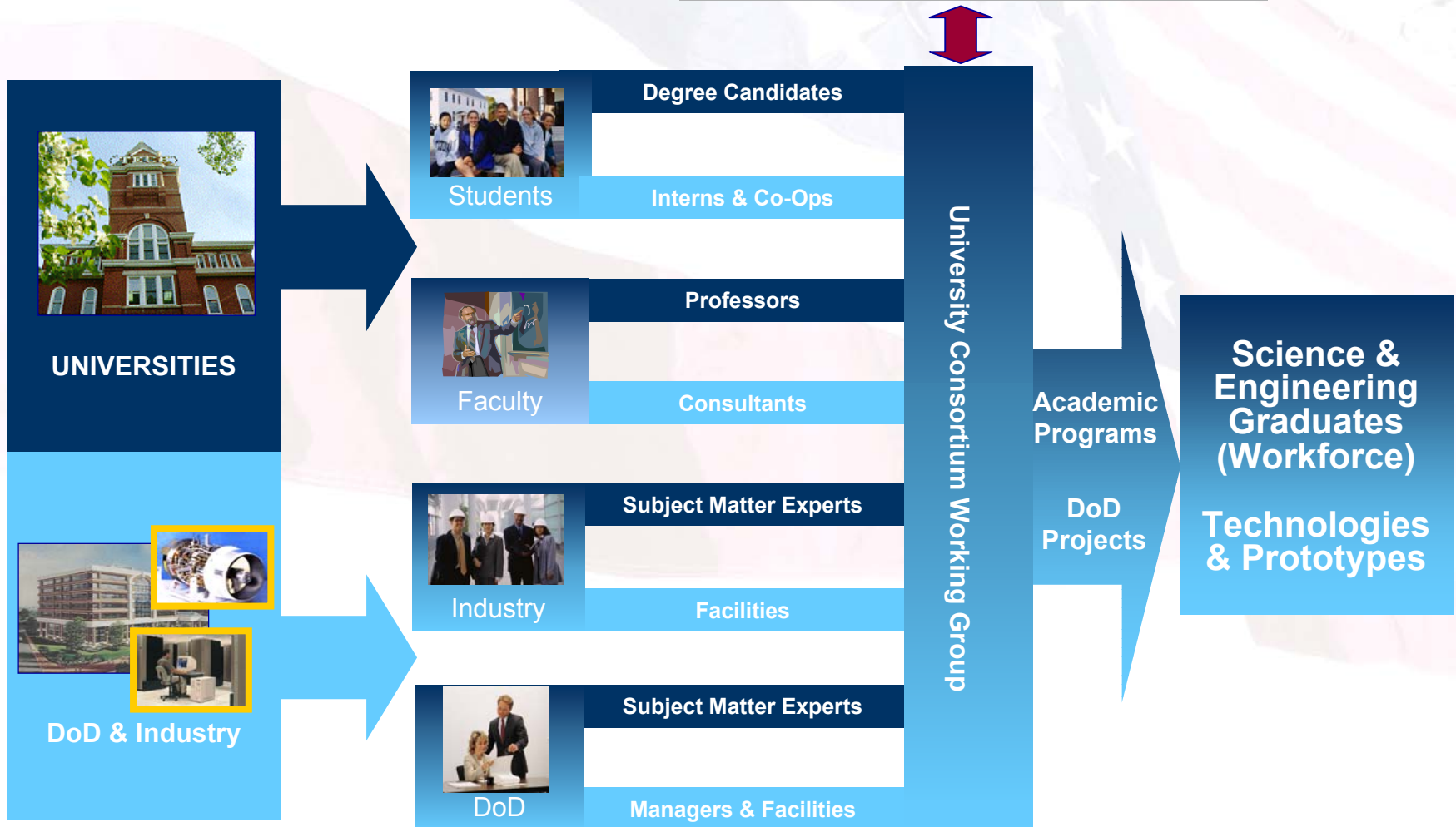
- **Direction from Government Oversight Council**
- **Address projected shortfalls in technical workforce**
  - Increase the DoD supply of entry-level technical professionals
- **Focus on DoD technology interoperability**
  - Place near-term graduates in real-world DoD work situations
    - Address DoD programmatic and technology challenges
  - Draw on the expertise of DoD, Industry, and Academia
    - Real-world subject matter experts mentor students
    - Students deliver products with DoD interoperability applications
- **Guide Universities and High Schools toward meeting DoD interoperability workforce needs**
  - DoD will identify and fund student projects at Universities



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## University Consortium Partnership

Government Oversight Council





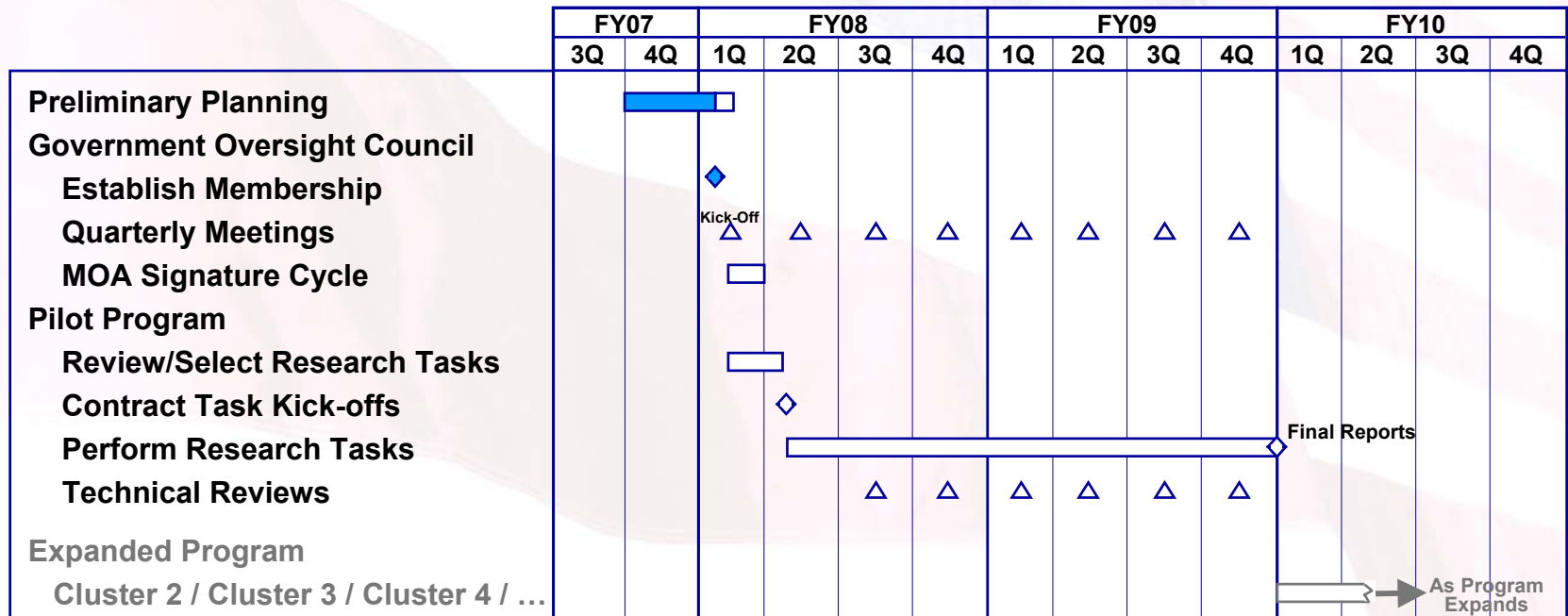
## **SMDC - Invited Government Oversight Council Members**

- **USASMDC**
  - Director Tech Center – Chairman
  - Director Future Warfare Center
- **AMCOM**
  - Deputy to the Commanding General
- **AMRDEC**
  - Dir Applied Sensors, Guidance & Elect Dir
  - Deputy Director Aviation Engineering Dir
- **PEO Missiles & Space**
  - Deputy PEO
- **PEO Aviation**
  - Deputy PEO
- **Redstone Arsenal Garrison**
  - Garrison Commander

## **SMDC Pilot Program Objectives**

- **Build an effective infrastructure**
  - Fully support the Pilot Program
  - Ready to replicate for an expanded program
- **Execute specified research tasks and deliver products in accordance with contractual milestones**
- **Increase student exposure to DoD technologies in a real-world work-environment**
  - Increase likelihood students will choose DoD careers
  - Decrease new-employee attrition by increasing student knowledge of DoD work environment

## SMDC Pilot Program Cluster 1



## **SMDC Pilot Program Status**

- **Government Oversight Council**
  - **Members have been contacted and invited to participate**
  - **Memorandum of Agreements In Process**
- **Participating Academia**
  - **University Presidents / Deans of Engineering on board**
  - **Memorandum of Agreements In Process**

## Recommendations for HBCU Cluster

- **Government Oversight Council**
  - Identify Key DOD Senior Leadership and Invite Participation in Oversight Council Membership
  - Provide information briefing to prospective Oversight Council Members
  - Draft and Execute Memoranda of Agreement
- **Participating Academia**
  - Provide Information Briefing and Invite Participation of AMIE Institutions I.e. HBCUs with Accredited Engineering Programs
  - Draft and Execute Memoranda of Agreement
- **Working Group**
  - Task AHDC to assist DOD via MIPR to USA SMDC