



Air Force Small Business Innovation Research (SBIR) Commercialization Pilot Program (CPP)

A Strategy to Accelerate Technology Transition



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Small Business Innovation Research/ Small Business Technology Transfer



**Federally Mandated Program requiring 2.5% (SBIR)
and .3% (STTR) of Air Force Extramural RDT&E
Budget \approx \$370M (2010)**



Outline



- **AF SBIR (Past)**
- **AF SBIR CPP (Present)**
- **AF SBIR (Future)**
- **Summary**



AF SBIR/STTR Process Overview



Annual Averages

- Topics ~ 230
- Phase I Proposals ~ 3500
- Phase I Contracts ~ 500
- Phase II Proposals ~ 450
- Phase II Contracts ~ 270

Annual Workload

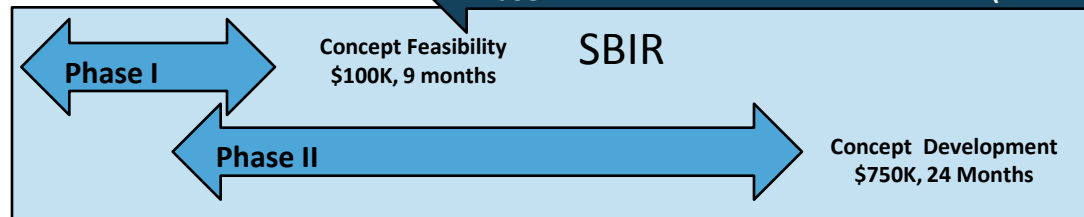
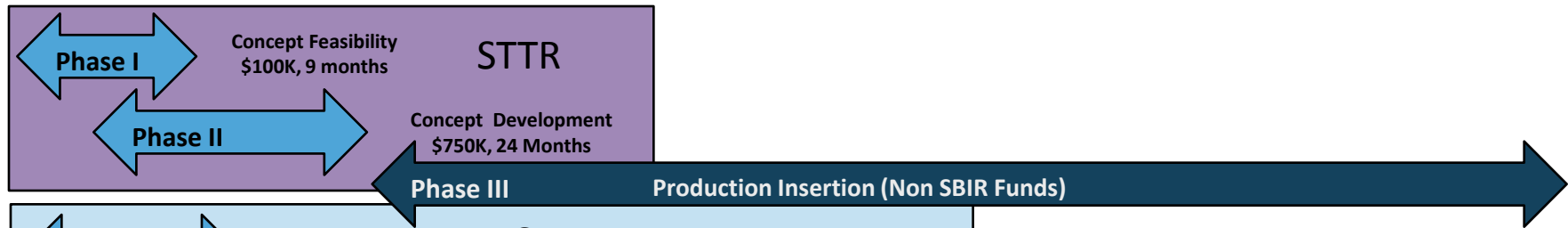
- Proposals Evaluated ~ 4000
- New Contracts ~ 800
- Continuing Contracts ~ 400
- Total Active Contracts ~ 1200



SBIR/STTR's Role in Air Force Acquisition



| | | | | | | | | |
|------------------------------------|------------------------------|---------------------------|----------------------------|--|---------------------------------------|---------------------------------------|----------------------|-------------------------|
| TRL 1 Basic Principles Observed | TRL 2 Concept Formulation | TRL 3 Proof of Concept | TRL 4 Breadboard in Lab | TRL 5 Breadboard in Rep Environment | TRL 6 Prototype in Rep Environment | TRL 7 Prototype in Ops Environment | TRL 8 System Qual | TRL 9 Mission Proven |
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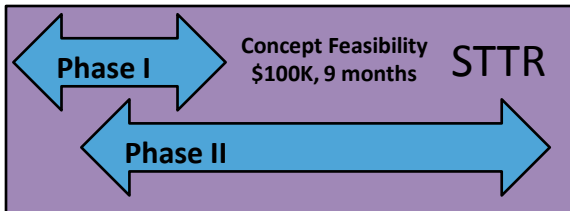




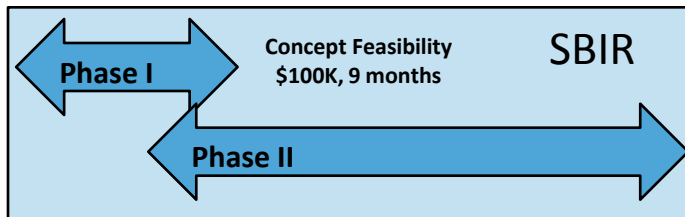
SBIR/STTR's Role in Air Force Acquisition



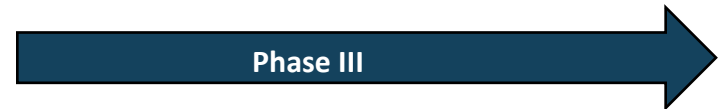
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Concept Development
\$750K, 24 Months



Concept Development
\$750K, 24 Months





AF Commercialization Pilot Program (CPP)



- **Congressionally Mandated in Section 252a of the National Defense Authorization Act for FY06**
 - CPP
 - Focused on **identifying** and **accelerating** the transition of SBIR developed technologies, products, and services to Phase III and into the acquisition process; through the end of FY2009
 - 1% of AF SBIR budget to administer Program



AF SBIR Transition

-- Root Cause of the Problem



- **Symptoms**

- SBIR is taxing acquisition programs with very little return on investment
- Program offices not fully engaged in SBIR processes
- AFRL executes SBIRs as tech development with insufficient center coordination
- AF not identifying major contractors or program office POCs to small businesses
- AF does not follow thru after handing-off small businesses to major contractors
- Major Contractors lack thorough SBIR internal management construct

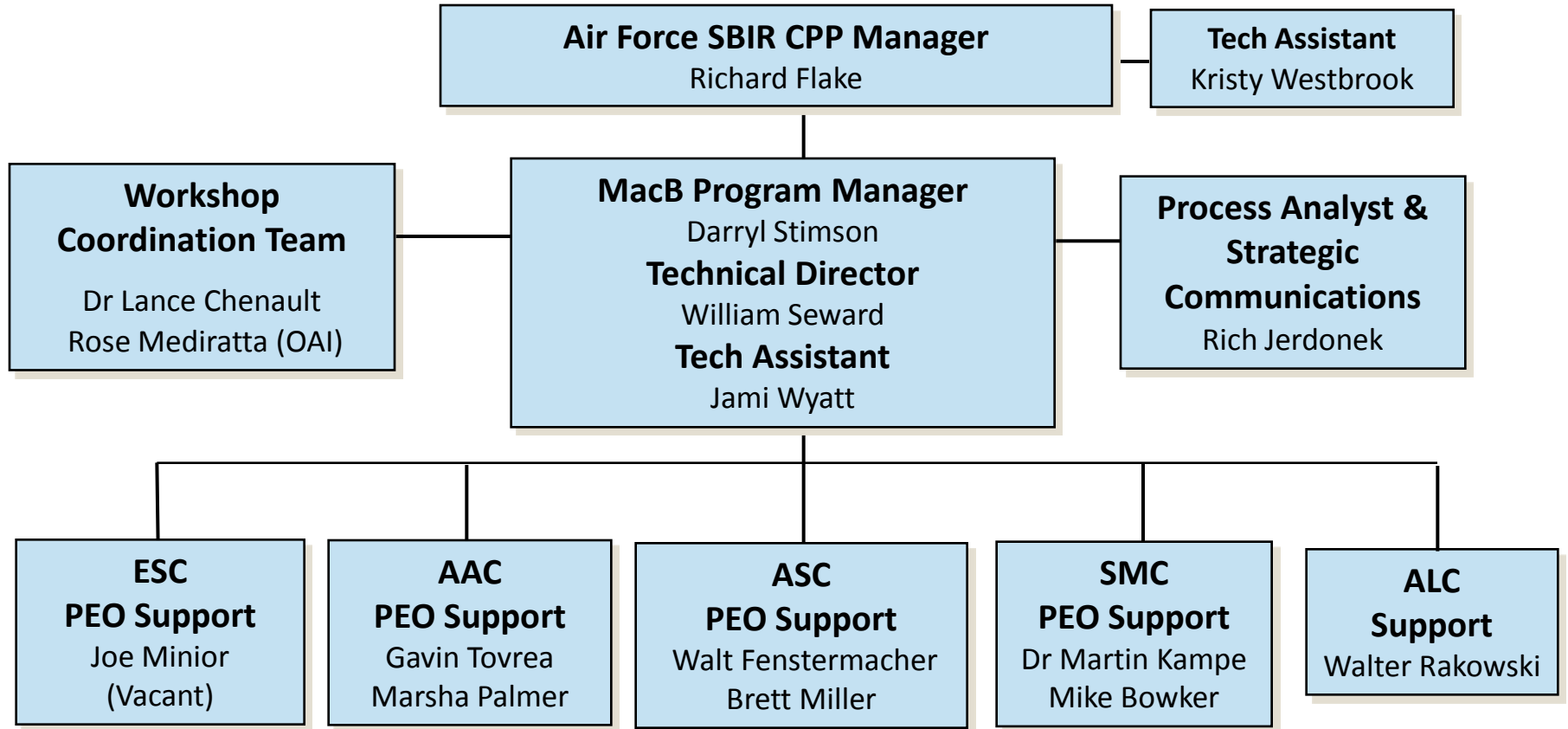
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Stakeholders are not aligned or adequately connected



Establishing Connectivity

-- SBIR CPP Core Transition Support Team



Electronic Systems Center (ESC), Aeronautical Systems Center (ASC), Space & Missile Center (SMC), Air Armament Center (AAC), & Air Logistics Centers (ALCs)



SBIR Technology Transition



-- Process & Implementation Guides (Internal Alignment)





SBIR Technology Transition Plan (STTP)



- **Transition Agents (TAs) identify SBIRs of “High Interest” via interaction with large participating companies**
- **Small and large company business arrangement initiates SBIR (STTP)**
 - STTP identifies
 - All critical stakeholders (Roles & Responsibilities)
 - Current TRL/MRL of SBIR Phase II
 - Required TRL/MRL levels to transition
 - **Financial Strategy**
 - Identifies unfunded requirements
 - TAs assist with identifying necessary funding mechanisms

NOT a contractual document or an application for funds



Candidate Identification

-- DoD SBIR Phase II Projects



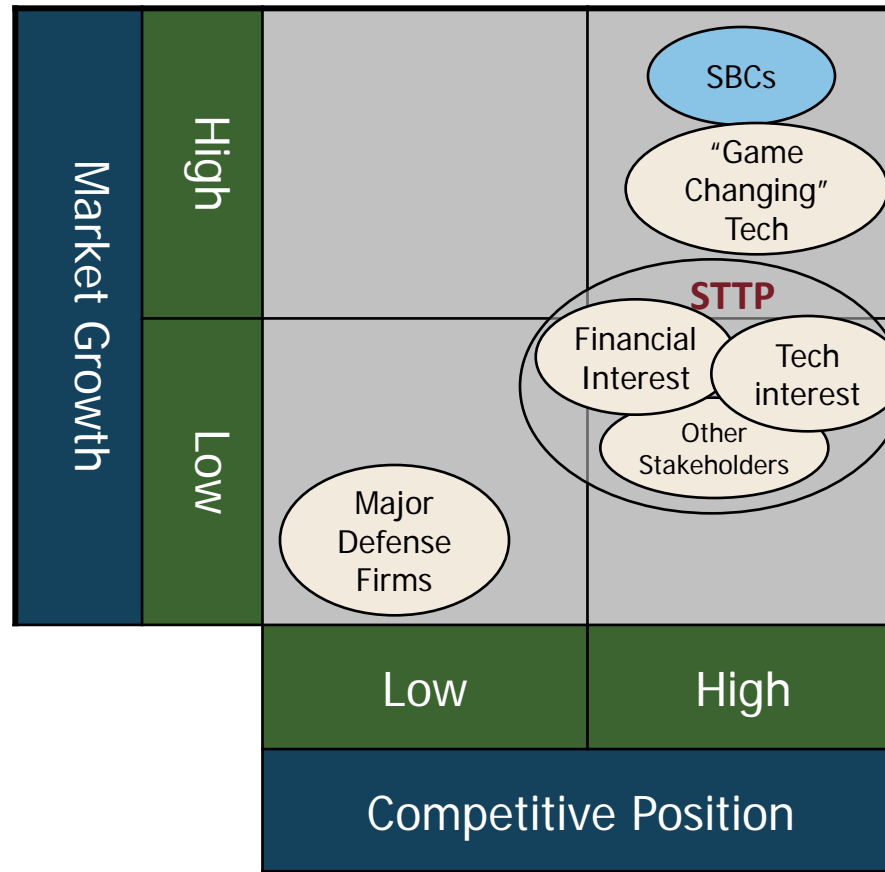
- PEO Technology Based Needs
 - Data mine DoD SBIR databases
 - Match to supply chain contractors
 - Conduct one-on-one (B2B) interviews at Industry Interchange Workshops
- AFRL TD Technology POCs & Major Ktr candidates
 - Case by case basis
 - Candidates enter same transition process as PEO tech needs approach
- Industry Technology Based Needs
 - AF/Navy relevant
 - 3 Pilot Workshops in FY08,
 - 7 in FY09/10, and
 - 10 scheduled for FY10/11



Small Business & Major Industry



-- Competitive Position & Market Growth



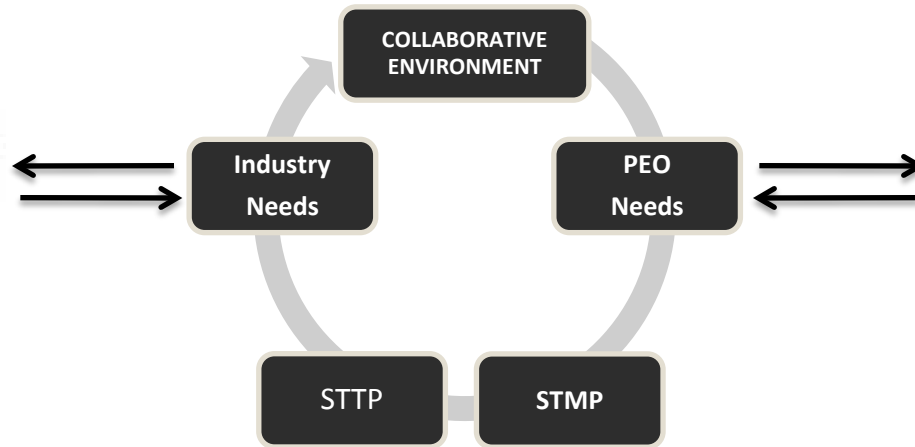


Air Force SBIR CPP

-- A Virtual Organization



Air Force
SBIR/STTR
Core AF SBIR CPP Transition
Support Team



Total of
17 Major Contractors
Participating



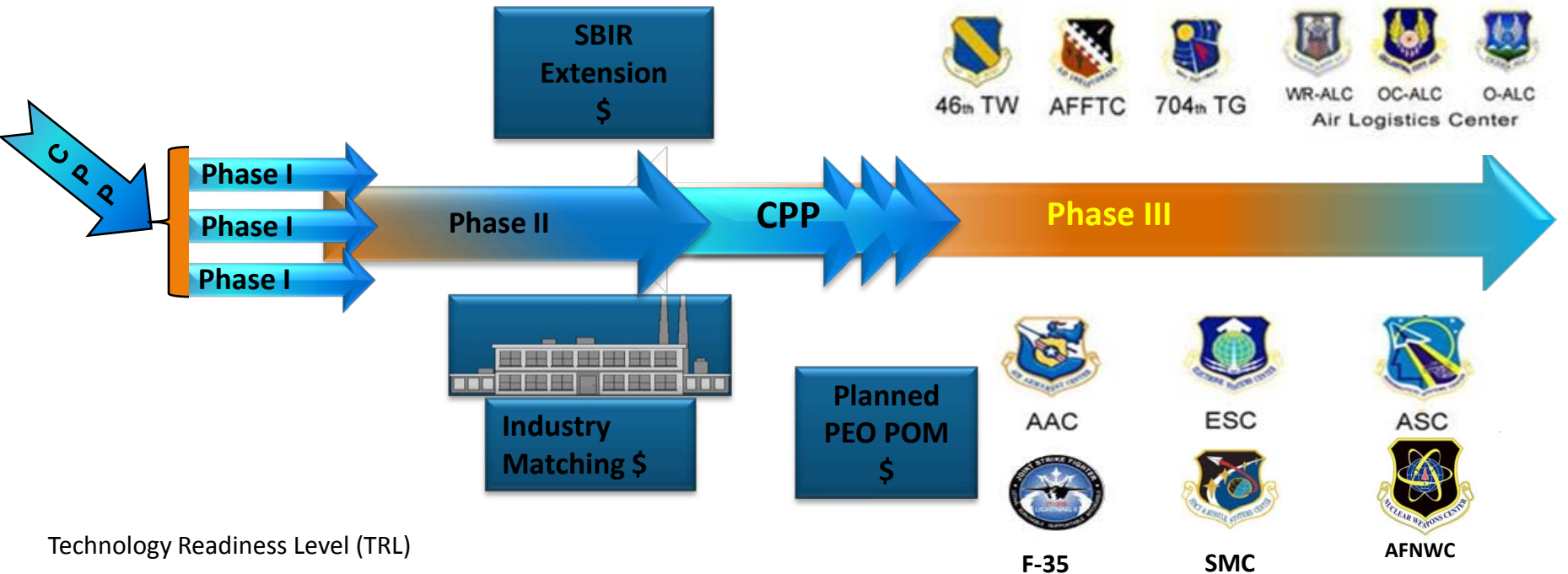
SBIR Phase II Portfolio



SBIR CPP Operating Construct



| | | | | | | | | |
|-----------------------------------|-----------------------------|--------------------------|---------------------------|---------------------------------------|--------------------------------------|--------------------------------------|---------------------|-------------------------|
| Pre-Concept Refinement | | | Concept Refinement | Technology Development | | System Development & Demonstration | | Production & Deployment |
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Technology Readiness Level (TRL)



AF SBIR CPP Strategic Planning Process



- **The AF SBIR Program 5 years from now**
 - **Long term Objectives**
 - **Environmental Analysis**
 - **Short term objectives**
 - **Action Plans**
 - **Implementation**
 - **Roles & Responsibilities**
 - **Metrics**



Topic Allocation & Execution (2010)



Research & Technology Development

System Development & Production

Test & Evaluation

Operation & Support





AF SBIR/STTR Process Overview



Topic Generation



Topic Solicitation



Proposal Submission



Evaluation



Award

- Topics are Generated through internal processes across AF (PEOs, TDs, ALCs, & Test Centers)

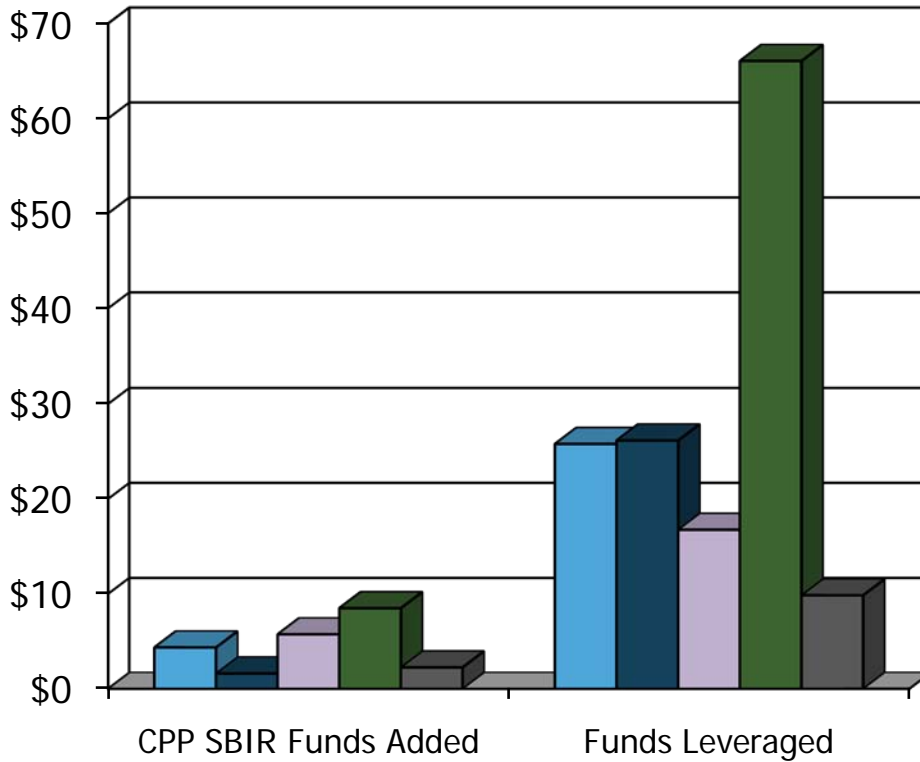
- **Major contractor input is highly encouraged**
 - Directly to AF Transition Agents (TAs)
 - TAs take to Chief Engineers for consideration
 - Virtual corporate IR&D
 - Helps mitigate “High Risk” development



Topic Allocation?



■ ASC/JSF ■ Test & Log Centers ■ SMC ■ AAC ■ ESC



| \$K | CPP SBIR Funds Added | Funds Leveraged |
|--------------------|----------------------|-----------------|
| ASC/JSF | 4,348 | 25,783 |
| Test & Log Centers | 1,612 | 26,150 |
| SMC | 5,729 | 16,747 |
| AAC | 8,488 | 66,046 |
| ESC | 2,252 | 9,843 |
| Total | 22,429 | 144,569 |

CPP SBIR funds **leverage more than 6 to 1** of actual and planned funding.



Summary



- **We are making a difference**
 - **Establishing & implementing processes to align & connect stakeholders**
 - **Establishing clear lines of communication between all stakeholders**
 - **Focusing the SBIR program on Air Force Tech-Based Needs**
- **Next steps can make these differences significant!**
- **Bottom Line – The Air Force’s new strategy is increasing the positive affects of the AF SBIR program on**

USA’s NATIONAL SECURITY