
DoD
EPA
DOE
SERDP
Strategic Environmental
Research & Development Program
SERDP Funding Opportunities
CLU-IN Webinar
December 14, 2007
Bradley P. Smith
Executive Director
1

Department of Defense's Environmental Technology Programs

SERDP (DoD, EPA, DOE)

ESTCP

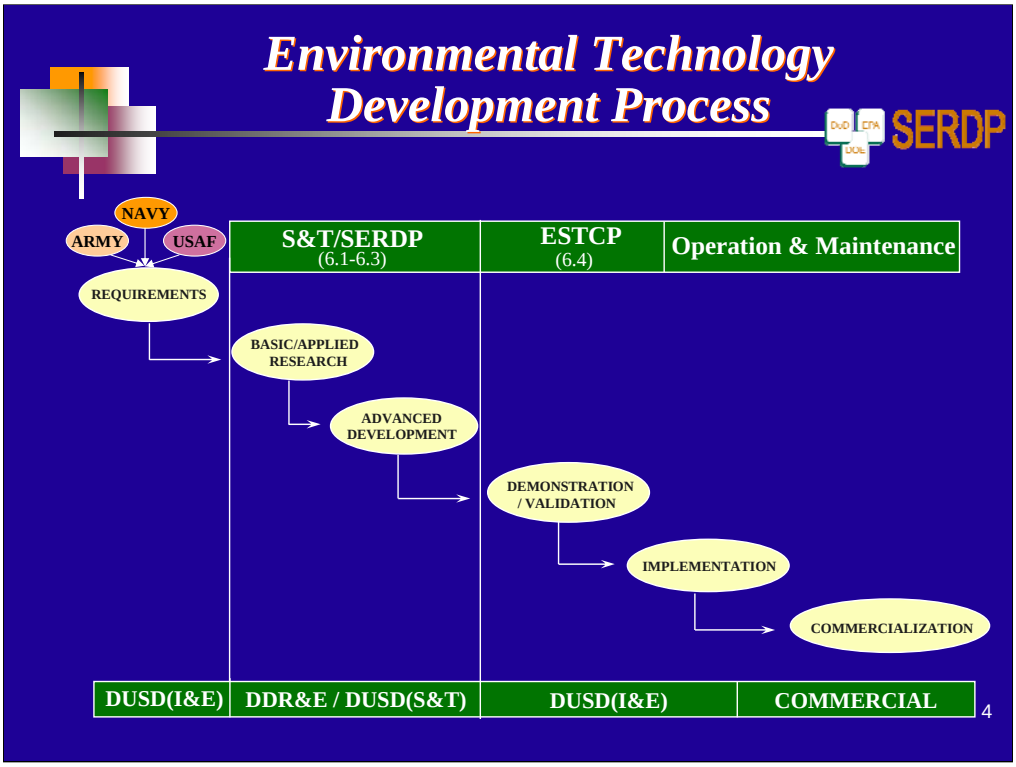
- **Basic and Applied Research**
- **Demonstration/Validation**

2

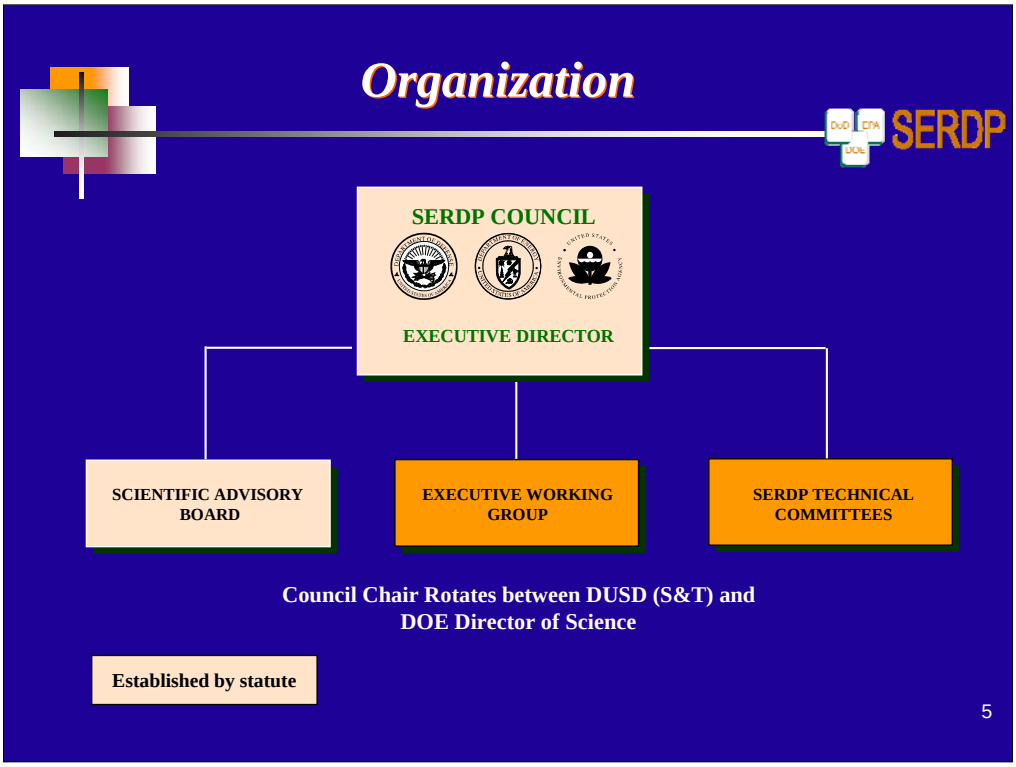
Defense Authorization Act FY 1991

- **Established SERDP**
  - Department of Defense (DoD), Department of Energy (DOE), and Environmental Protection Agency (EPA) partnership
- **Purposes**
  - Address DoD and DOE environmental concerns through R& D
  - Share data collection and analysis capabilities
  - Identify and share DoD research technology
  - Identify private sector technologies useful to DoD
- **Organization and Procedures**
  - Council
  - Executive Director
  - Scientific Advisory Board

3


Environmental Technology Development Process
SERDP
NAVY
ARMY
USAF
REQUIREMENTS
S&T/SERDP
(6.1-6.3)
ESTCP
(6.4)
Operation & Maintenance
BASIC/APPLIED RESEARCH
ADVANCED DEVELOPMENT
DEMONSTRATION / VALIDATION
IMPLEMENTATION
COMMERCIALIZATION
DUSD(I&E)
DDR&E / DUSD(S&T)
DUSD(I&E)
COMMERCIAL
4

Organization



Council Chair Rotates between DUSD (S&T) and DOE Director of Science

Established by statute

5

There are two major classes of environmental drivers within the DoD. The first class are those issues which impact the sustainability of ranges and range operations. The threats to our ranges come from a variety of sources including restrictions due to threatened and endangered species and marine mammals, potential contamination from unexploded ordnance and their energetic constituents, toxic air emissions and dust emissions, noise from both aircraft and weapons and the increasing density of development adjacent to the bases. Solutions to the issues are essential to ensure that the DoD can continue to provide our men and women with the best possible training environment.

The second major class of environmental driver is the reduction of future environmental liability. There are two broad categories encompassed within this class. The first is the remediation of contamination from past practices. This includes traditional environmental cleanup. Even though we have been pursuing this for well over a decade, some contaminants remain very difficult to treat effectively. In addition, the removal of UXO from closed, transferred and transferring ranges has become an issue since the inception of base closures. The liability for UXO has the potential to dwarf the currently defined cleanup liability. In addition, the emergence of previously unknown contamination, such as ammonium perchlorate from rocket motors and other energetic materials are creating liabilities not been fully assessed. Technology has the promise of significantly reducing the time and cost of remediating these contaminants.

The other side of reducing future liability is to reduce or eliminate the source of hazardous materials within our platforms and weapon systems. These systems are viewed from a life-cycle perspective in an attempt to capture all of the environmental issues and their costs. The goal is to eliminate these issues through pollution prevention. Experience has shown that substitute materials that are developed to be environmentally benign frequently have superior performance over those they replaced

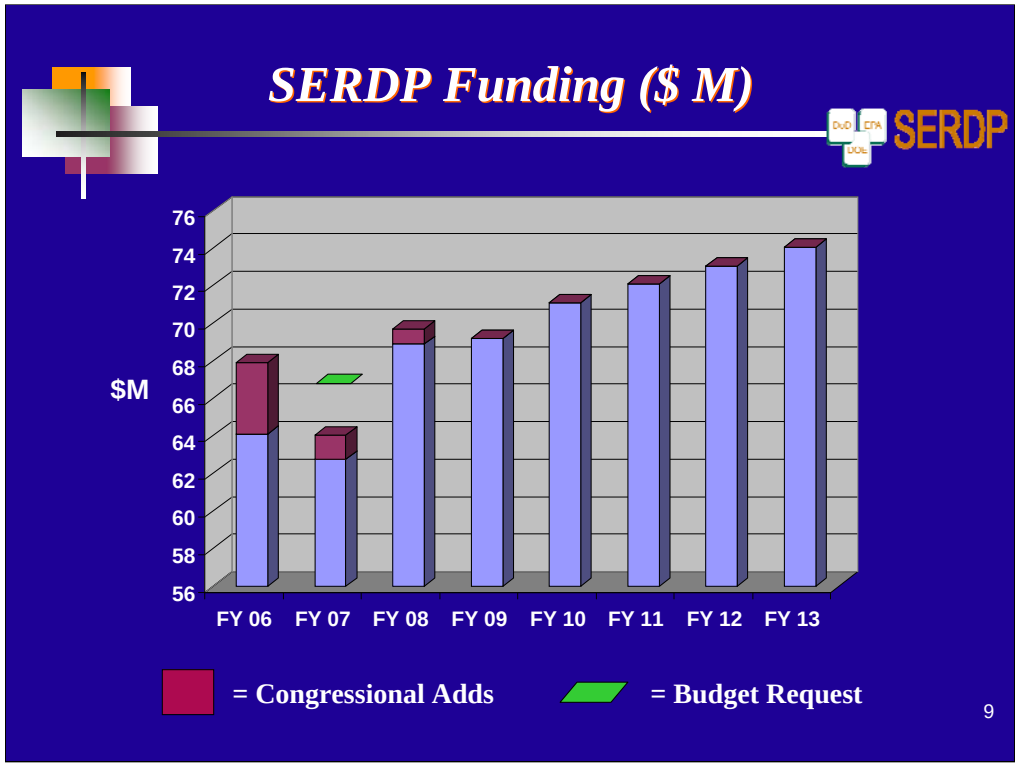
SERDP invests in the four broad environmental pillars:

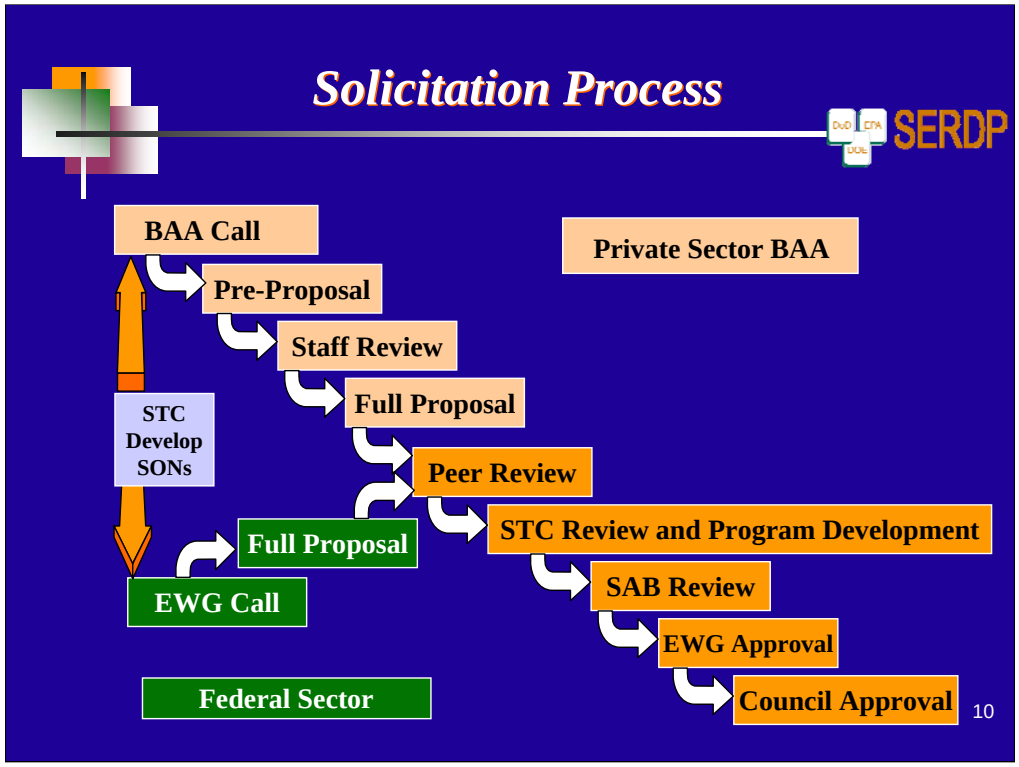
Pollution Prevention: changes in materials and processes to eliminate pollution at the source. Shown is a standard chromium plating bath on the left and the new HVOF direct deposition of chromium on the right.

Cleanup: remediation of our past practices, including UXO

Compliance: strictly defined as “end-of-pipe” or control technologies to clean up emissions and effluents from existing systems. Shown is a jet engine test cell.

Conservation: Preserving our natural and cultural resources.


SERDP Funding ($ M)
SERDP
$M
76
74
72
70
68
66
64
62
60
58
56
FY 06
FY 07
FY 08
FY 09
FY 10
FY 11
FY 12
FY 13
= Congressional Adds
= Budget Request
9

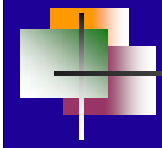

Solicitation Process
SERDP
BAA Call
Private Sector BAA
Pre-Proposal
Staff Review
Full Proposal
Peer Review
STC Review and Program Development
SAB Review
EWG Approval
Council Approval
STC Develop SONs
Full Proposal
EWG Call
Federal Sector
10

Selection Criteria

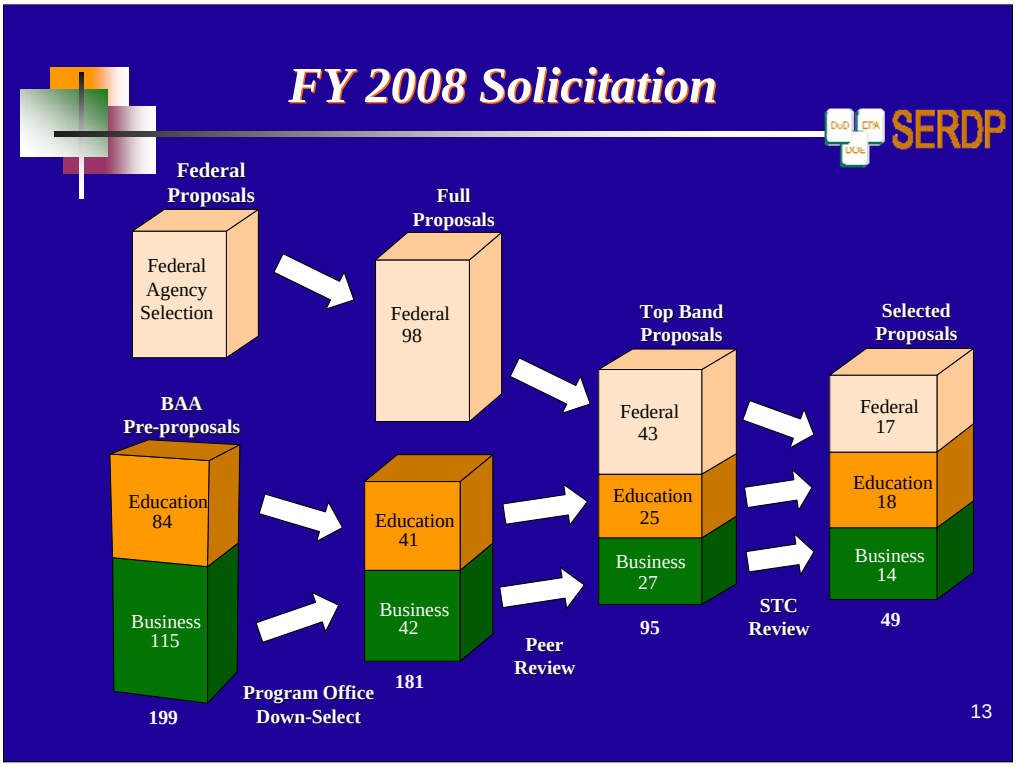
Relevance (Pass / Fail)

- **Technical Merit**
- **Transition Potential**
- **Personnel**
- **Cost**
- **Cooperative Devleopment**

FY 2008 Solicitation



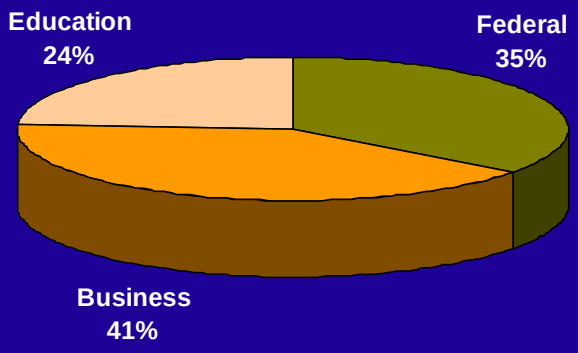
12


FY 2008 Solicitation
SERDP
Federal Proposals
Federal Agency Selection
Full Proposals
Federal 98
Top Band Proposals
Federal 43
Education 25
Business 27
95
Selected Proposals
Federal 17
Education 18
Business 14
49
STC Review
Peer Review
BAA Pre-proposals
Education 84
Business 115
199
Program Office Down-Select
Education 41
Business 42
181
13

FY 2008 SEED Solicitation
-Source of Proposals-

SERDP

54 SEED Full Proposals Received

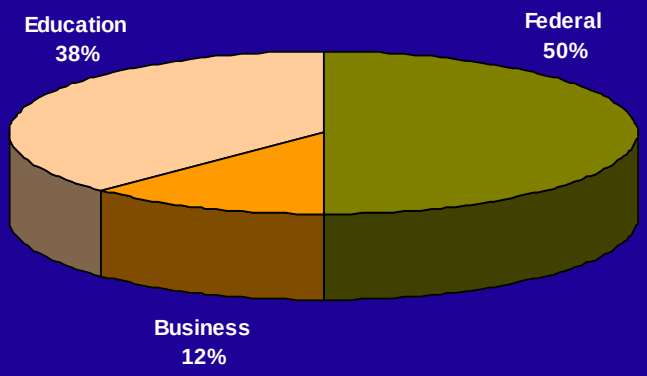


14

FY 2008 SEED Solicitation
-Source of Proposals-

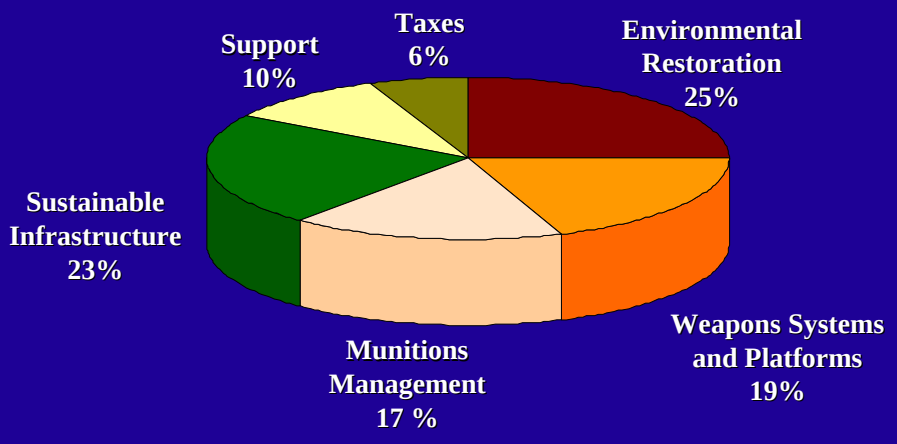
SERDP

8 SEED Proposals Selected



15

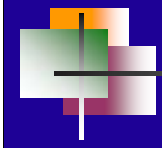
SERDP FY 2008 Budget



$ 68.874 M Requested

16

FY 2009 Solicitation



17

FY 2009 Solicitation
-Due Dates-

- **SERDP Core Solicitation**
- **Response to Broad Agency Announcement**
  - Pre-proposals Due: January 8, 2008
    - Full Proposals Requested by: February 1, 2008
  - Full Proposals Due by SERDP by: March 6, 2008
- **Response to Call for Proposals**
  - Full Proposals Due to SERDP by: March 6, 2008
    - Check with appropriate EWG member to determine internal due dates
- **SEED Solicitation**
  - Proposals Due to SERDP by: March 6, 2008
- **Visit the SERDP Web Site for Solicitation Details**

www.serdp.org/funding

18

FY 2009 Statements of Need
-Environmental Restoration-

SERDP

- **Reduced Uncertainty and Costs for Managing Large, Dilute Contaminant Groundwater Plumes**
- **Improved Identification of Munitions Constituent Source Zone Locations and Strength**
- **Improved Understanding of the Vapor Intrusion Pathway from Chlorinated Solvent-Contaminated Groundwater Plumes**
- **Improved Understanding of the Fate and Transport of Munitions Constituents on Operational Ranges**
- **Improved Understanding of the Impact of Environmental Parameters and Sampling Methods on Groundwater Contaminant Concentrations**

19

FY 2009 Statements of Need
-Munitions Management-

- **Improvements in the Detection and Remediation of Underwater Military Munitions**
- **Phenomenology of Military Munitions in Underwater Environments**
- **Advanced Technologies for Detection, Discrimination, and Remediation of Military Munitions**
- **Advanced Technologies for Detection, Discrimination, and Remediation of Military Munitions (SEED)**

20

FY 2009 Statements of Need
-Sustainable Infrastructure-

- **Development of Science-Based Recovery Objectives for Ecological Systems in the Southeastern United States**
- **Managing and Restoring Southeast Coastal Ecosystems Under the Threat of Climate Change**
- **Accelerated Pine Forest Mortality in the Southeastern United States**
- **Understanding Impacts of Military Activities on Archaeological Resources**
- **Assessment of the Impact of Sea Level Rise on Military Infrastructure**

21

FY 2009 Statements of Need
-Weapons Systems and Platforms-

- **Advanced Methods for Removing Solids from Shipboard Waste Streams**
- **Characterization of Emissions from Open Burn/Open Detonation**
- **Dynamic Accelerated Corrosion Test Protocol**
- **Environmentally Acceptable, Direct-To-Substrate Pretreatments for Multi-Material Systems**
- **Environmentally Benign Aircraft Deicing and Anti-Icing**
- **Understanding the Science Behind How Methylene Chloride / Phenolic Chemical Paint Strippers Remove Coatings**

22

Hallmarks of a Competitive Proposal

SERDP

- Clearly address the Statement of Need
- Show an understanding of the state of the science
- Hypothesis drive work is desirable
  - Concise statement of the hypothesis
  - Clear explanation of how it will be addressed
- Bulk of the proposal is in the Technical Approach
  - Detailed experimental design
  - Description of methods and techniques to be used

SERDP Internet Resources

www.serdp.org/funding

Thank You

After viewing the links to additional resources, please complete our online feedback form.

Links to Additional Resources

Feedback Form

25