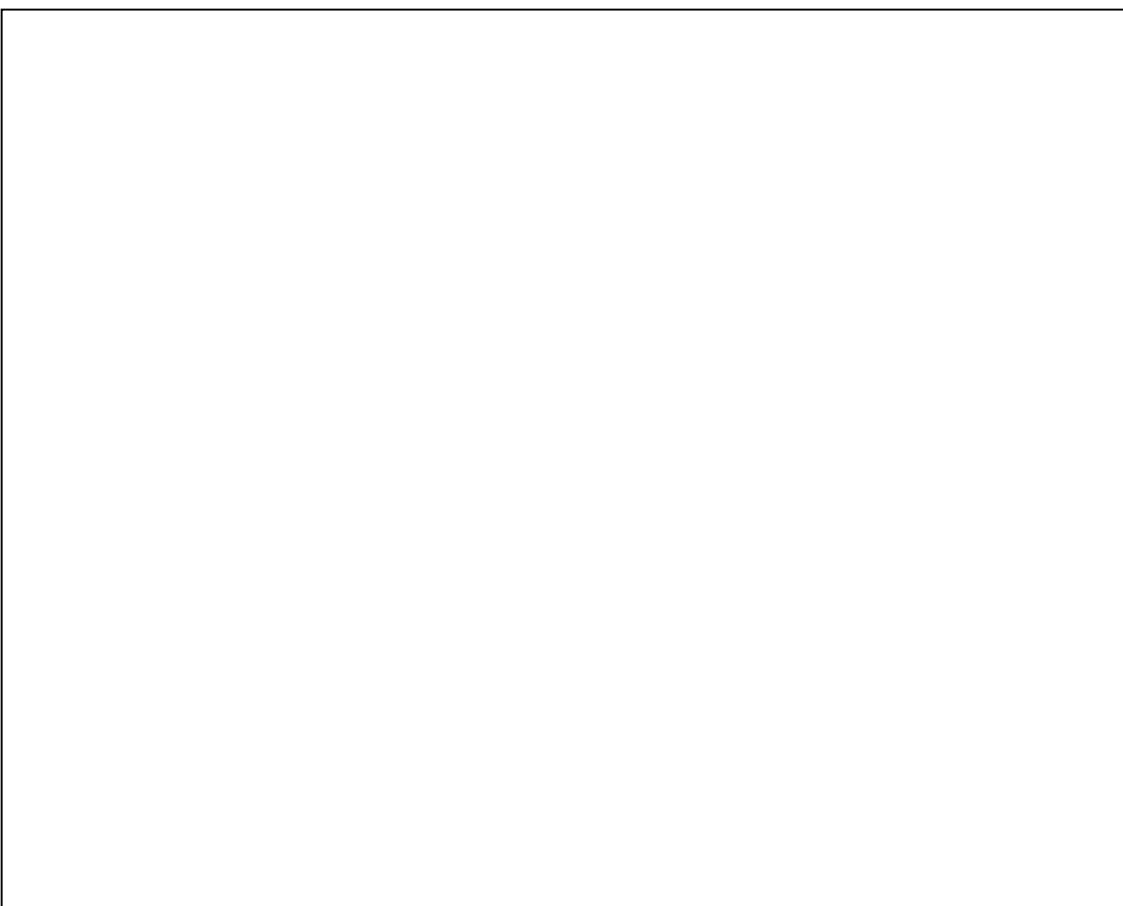


# EPA'S SMALL BUSINESS INNOVATION RESEARCH (SBIR) PROGRAM



**PHASE I CONTRACTOR WORKSHOP  
LIVE ON THE INTERNET  
12:30 – 2:00 EDT  
April 10, 2003**

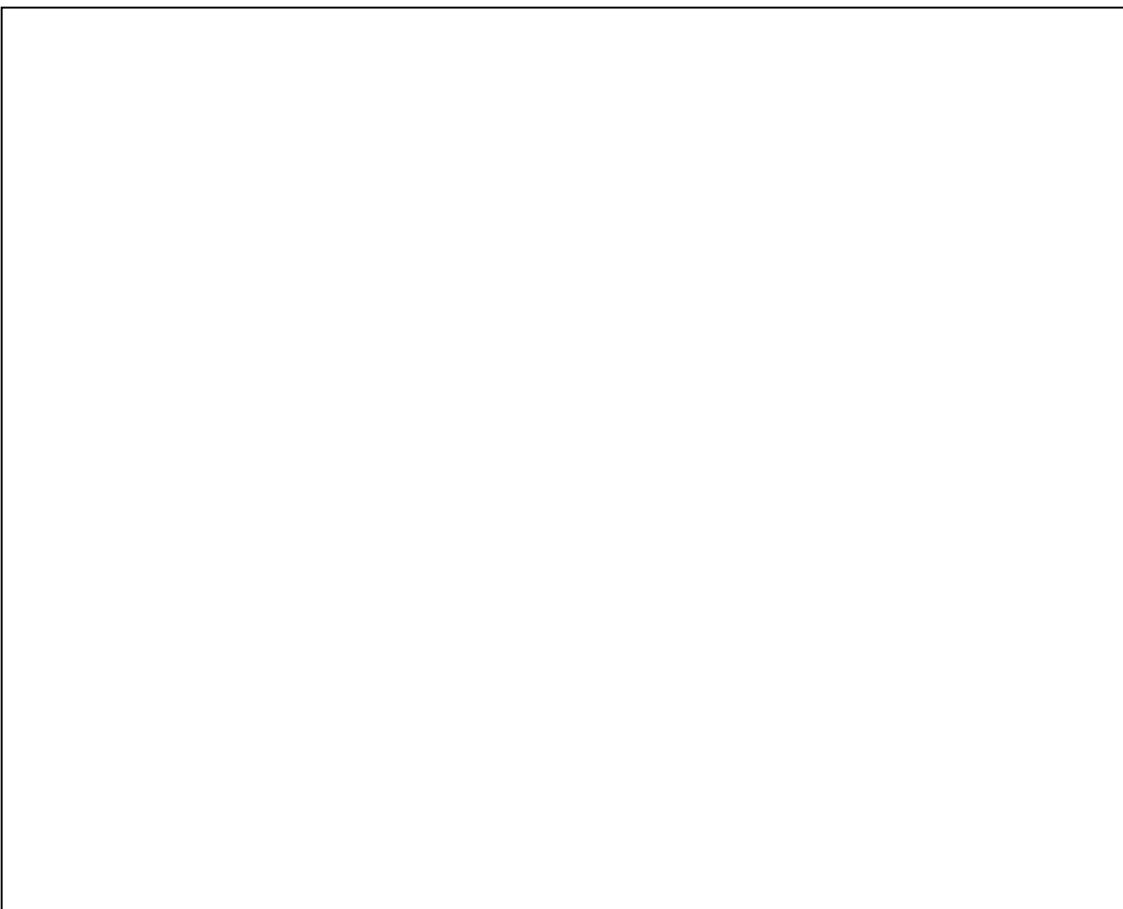
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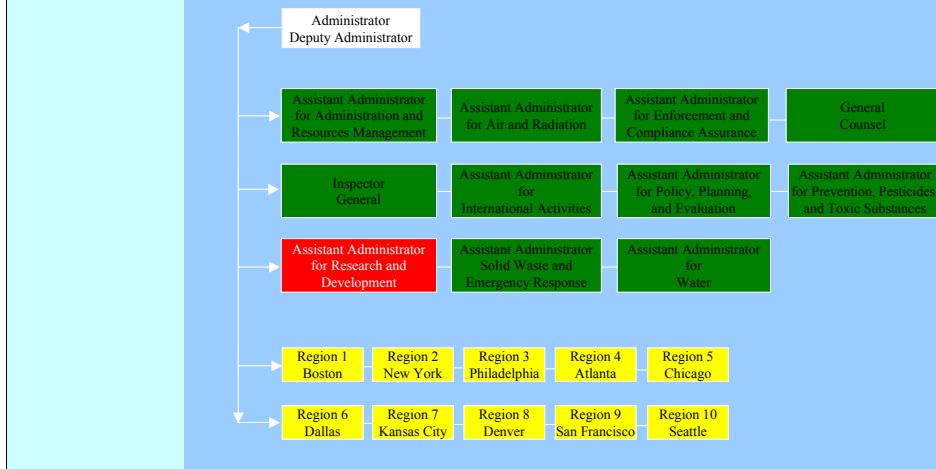
## EPA SBIR PROGRAM

- Next Phase I Solicitation
  - OPEN – March 27, 2003
  - CLOSE – May 23, 2003

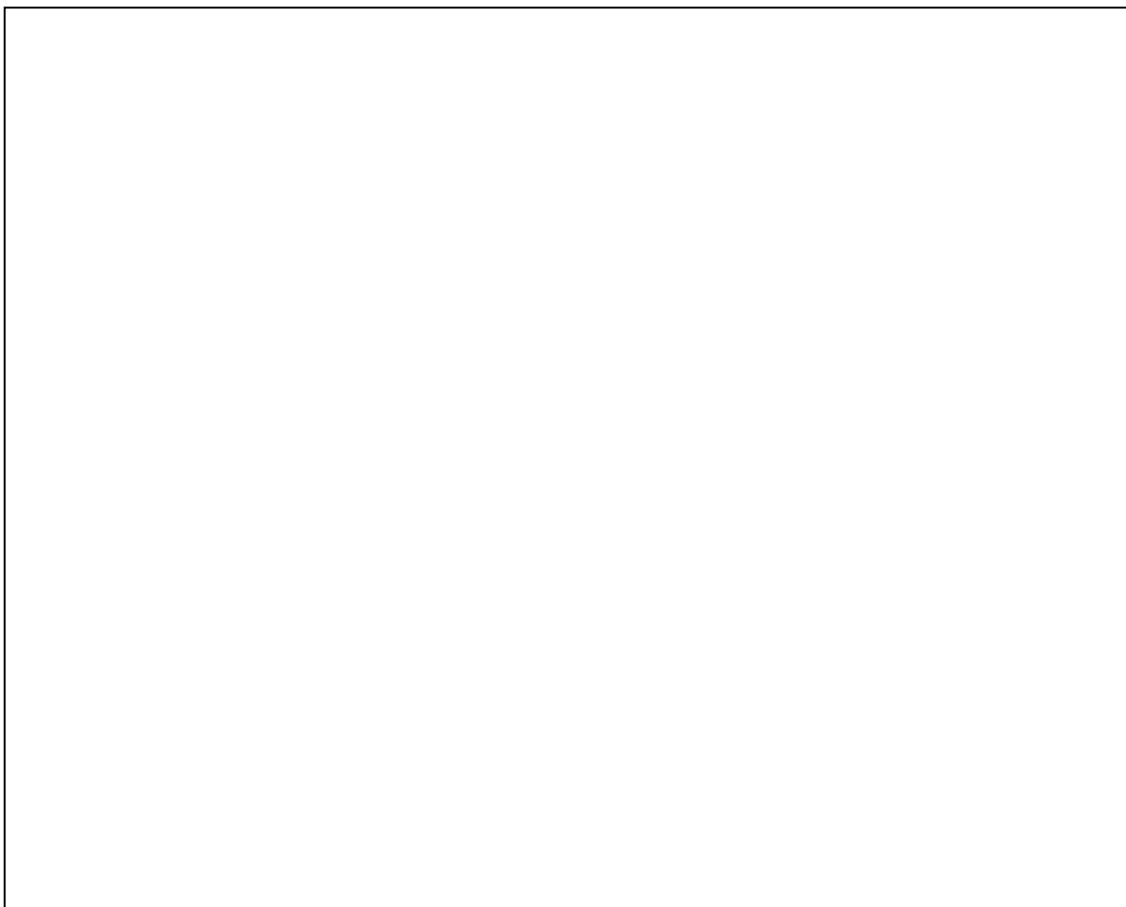
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# EPA ORGANIZATION CHART



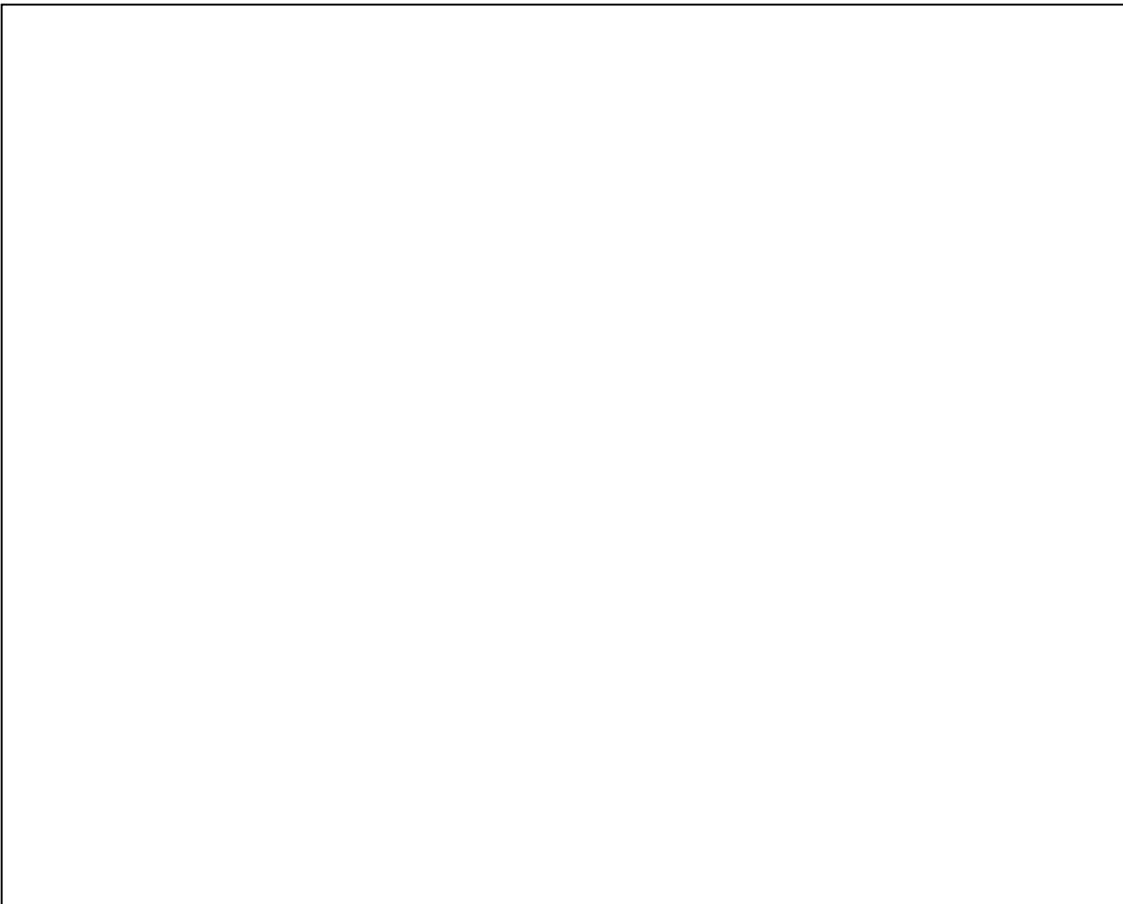
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## EPA'S SMALL BUSINESS INNOVATION RESEARCH (SBIR) PROGRAM

- Congress Passed Initial SBIR Law in 1982
- Ten Federal Agencies with Extramural R&D Budget over \$100 Million
- SBIR Budget in 2000 over \$1.2 Billion
- SBIR is 2.5% Extramural R&D Budget (EPA \$8 Million)

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## FEDERAL AGENCIES

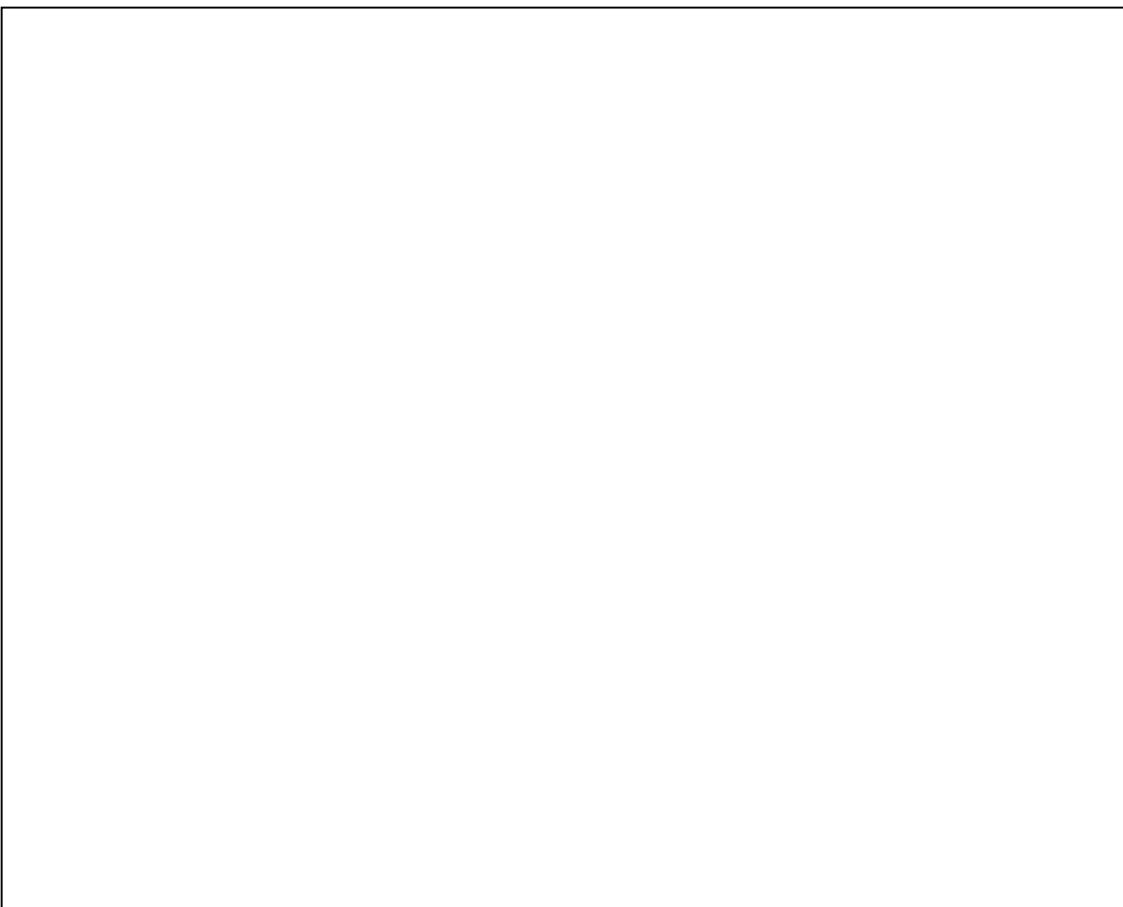
- Department of Agriculture (DOAg)
- Department of Commerce (DOC)
- National Institute of Standards & Technology (NIST)
- National Oceanic & Atmospheric Admin. (NOAA)
- Department of Education (DOEd)
- Department of Energy (DOE)
- Department of Transportation (DOT)
- National Aeronautics & Space Admin. (NASA)
- National Institutes of Health (NIH)
- National Science Foundation (NSF)

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## FEDERAL AGENCIES

- Department of Defense (DoD)
- Air force
- Army
- Navy
- Ballistic Missile Defense Organization (BMDO)
- Defense Advanced Research Proj. Agency (DARPA)
- Special Operations Command (SOCOM)

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## SBIR PROGRAM OBJECTIVES

- Foster Development of New Cutting-Edge Environmental Technologies
- EPA Programs Use SBIR Technologies to Reduce Pollution
  - Reduced Capital and O&M Costs
  - Controls More Efficient and Effective
- Protecting Human Health
- Safeguard the Environment
- Improving American Economy

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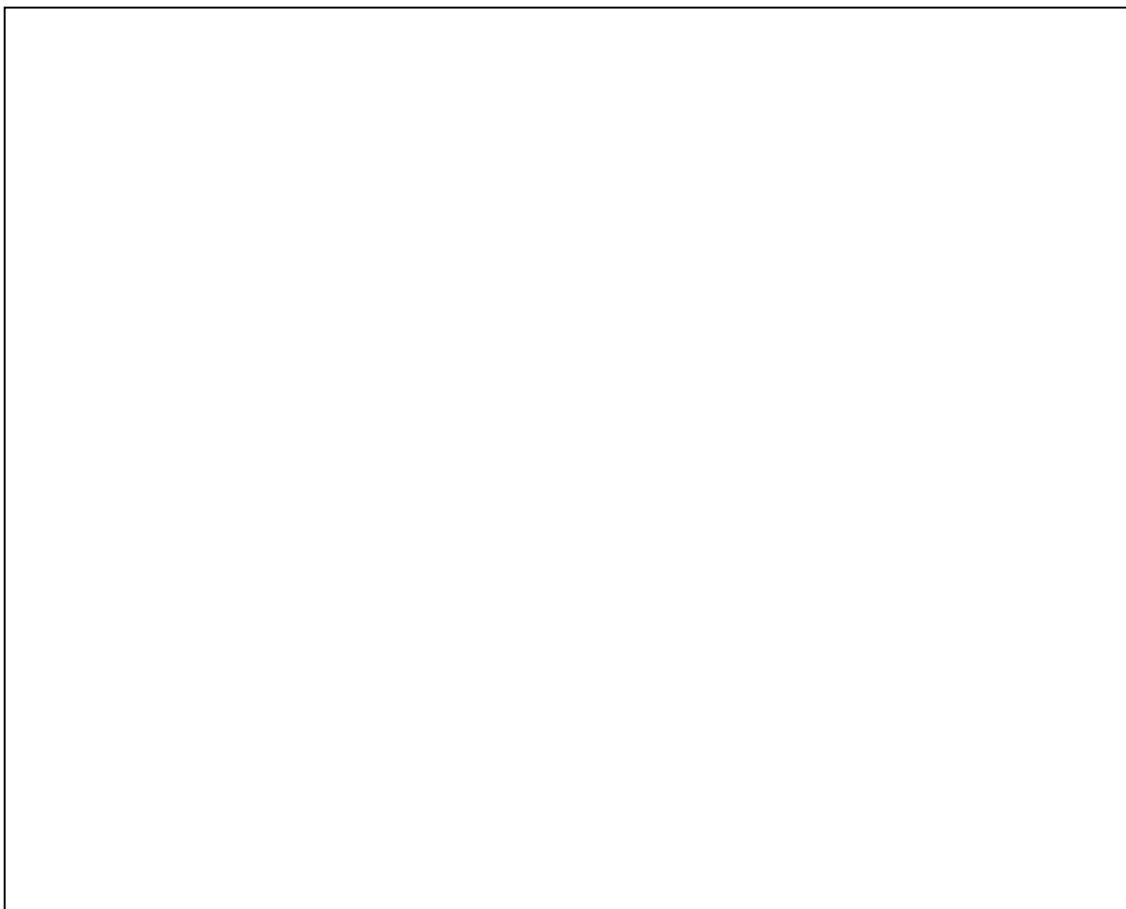
All this helps the Agency to achieve its overall mission

\*New jobs, New Companies, New Products

## SBIR PHASE I

- Prove Scientific and Technical Feasibility
- Awards up to \$70,000
- Commercialization Assistance \$4,000
- Six Months Duration
- Approx. 1 in 10 Funded

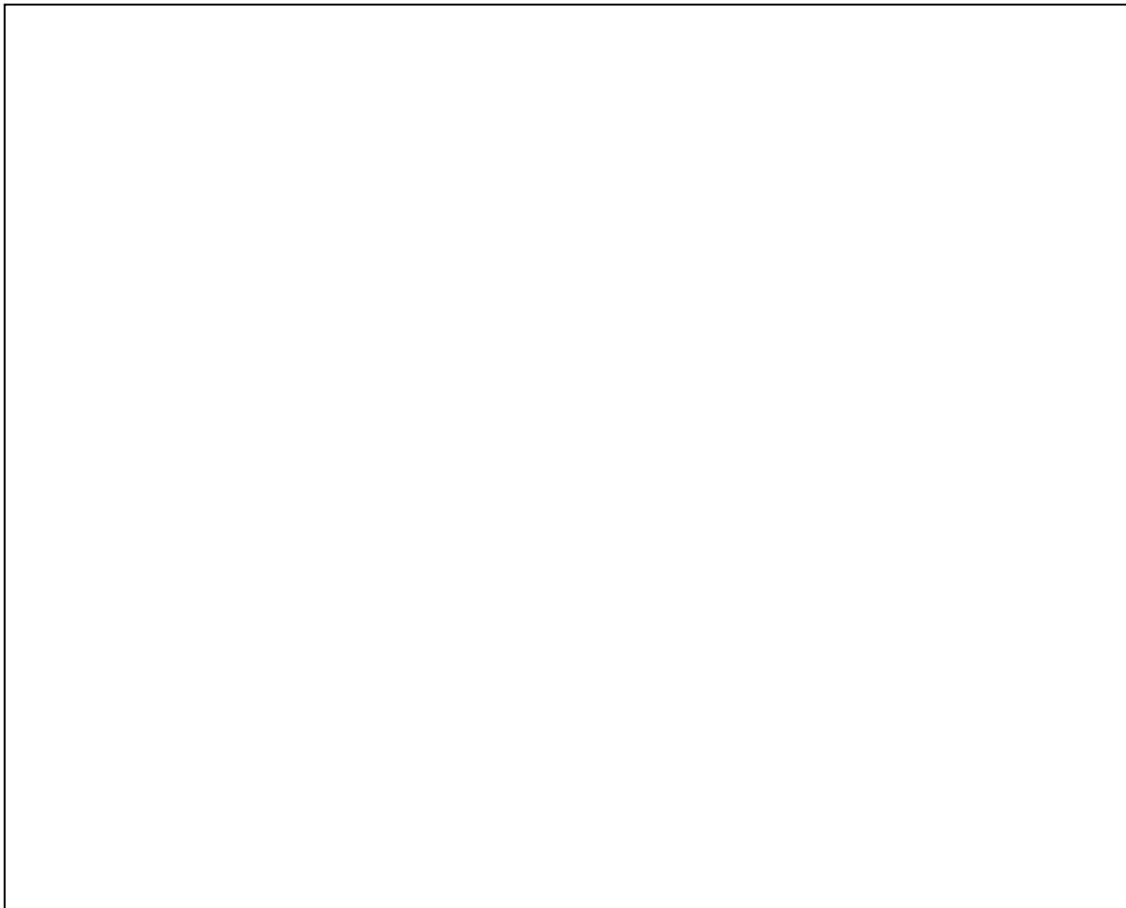
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## SBIR PHASE II

- Prototype Developed/Commercialized
- Only Phase I Winners Eligible
- Awards \$225,000 up to \$320,000
- Phase II Options (Commercialization/ETV)
- 15 Month Duration
- Approx. 40 Percent Funded

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# SBIR PHASE I SOLICITATIONS

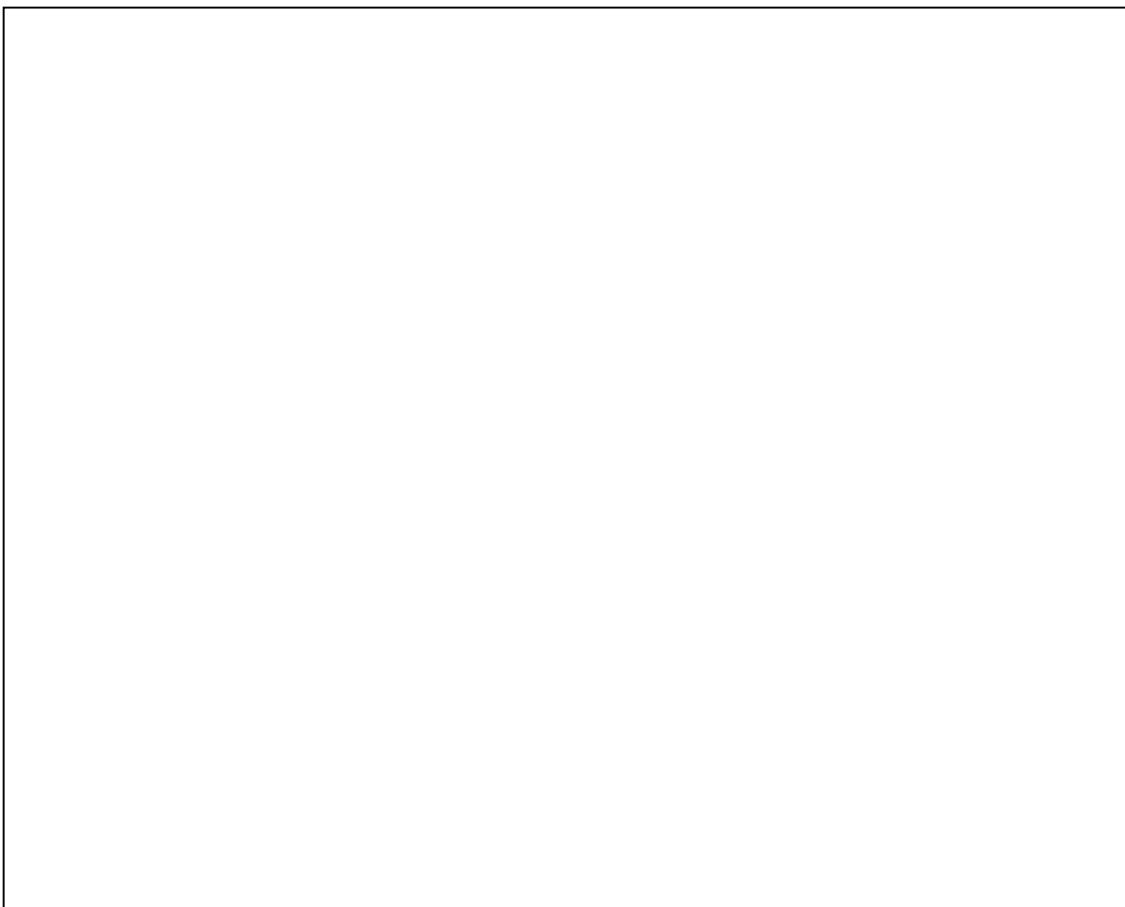
- SPECIAL: Monitoring of Air Pollution
- SPECIAL: Western USA Environmental Problems
- SPECIAL: Safe Buildings and Water Security
- REGULAR PHASE I SOLICITATION

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## SPECIAL: Monitoring of Air Pollution

- Continuous Ambient Monitors for Particulate Matter (Coarse PM and Fine PM)
- Volatile Organic Compounds (VOC) Monitors
- Special Air Emission Source Monitors (Metals, Mercury & Optical PM Sensors)
- New Sampling & Analytical Equipment

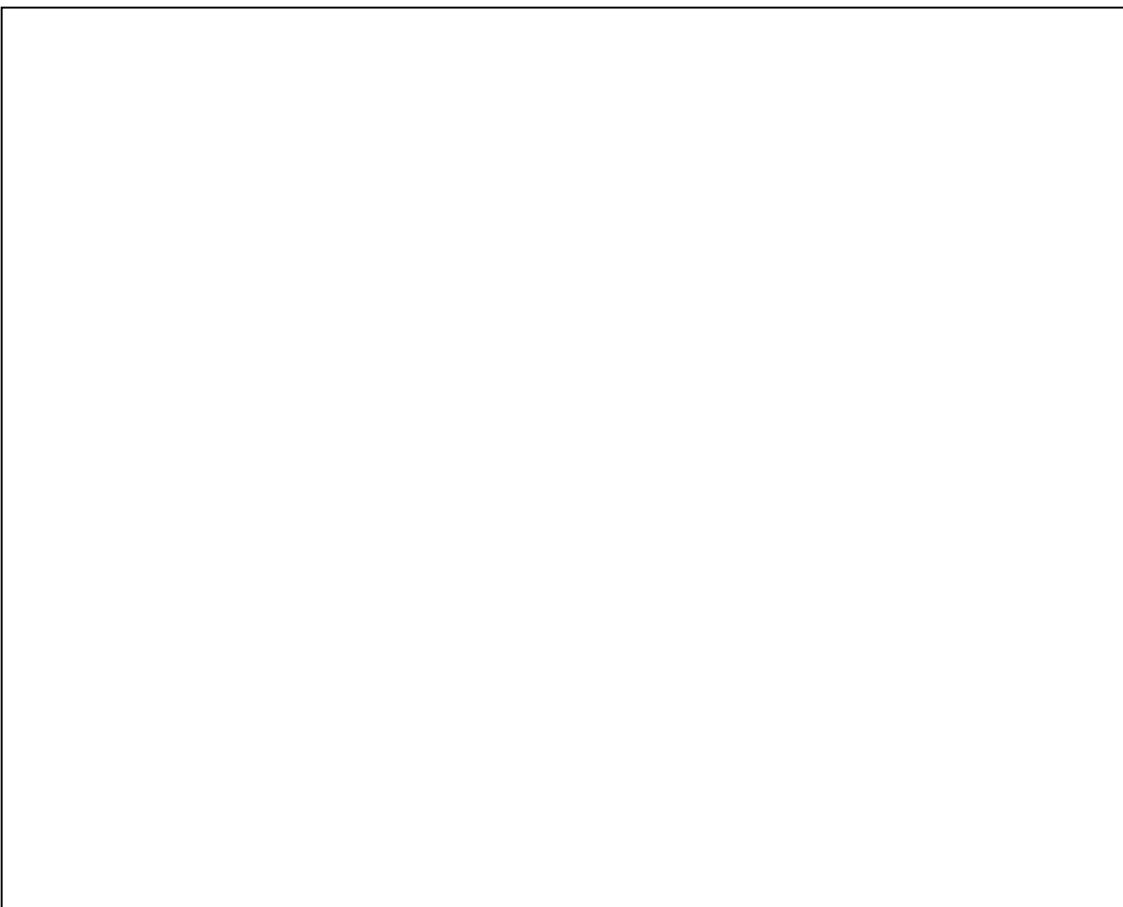
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## SPECIAL: Western USA Environmental Problems

- Coal Bed Methane
- Animal Environmental Management  
Chronic Wasting Disease
- Mining Waste and Acid Mine Drainage
- Emission Controls for Off-Road Engines

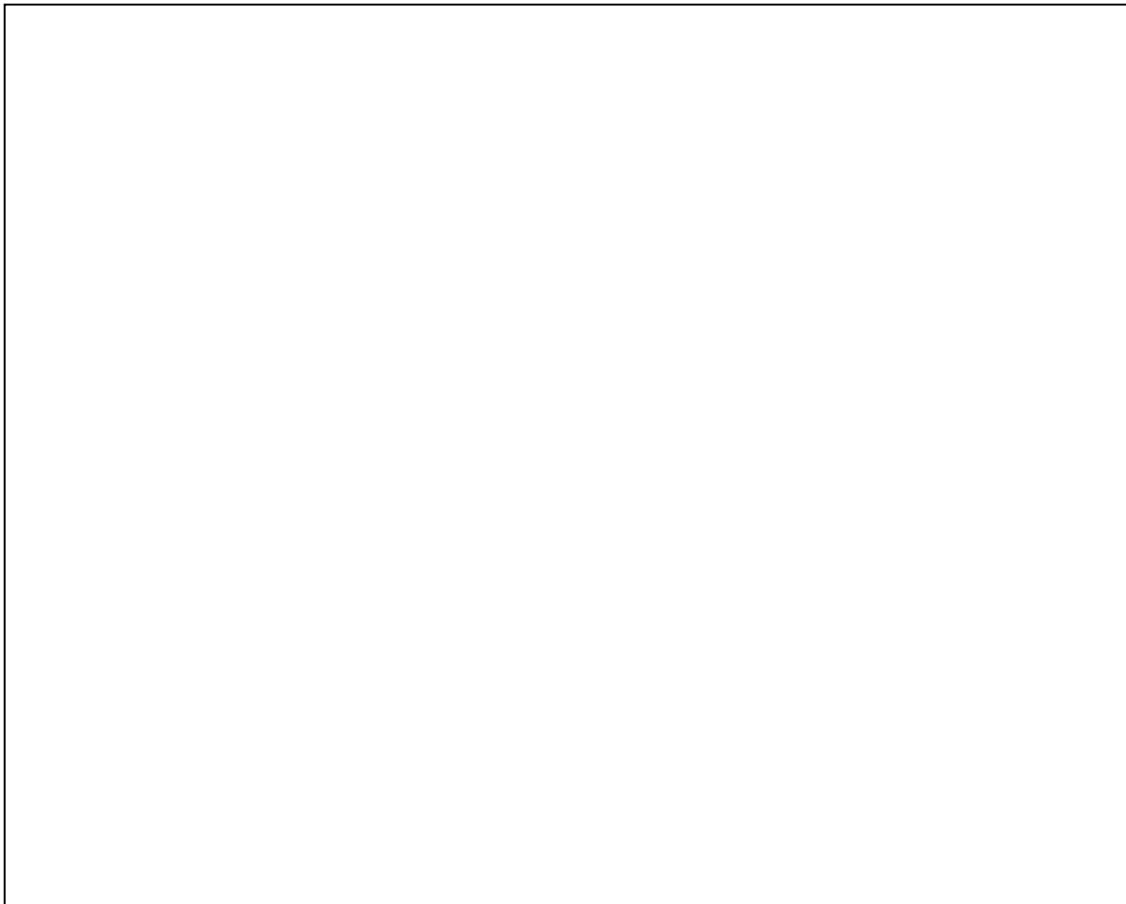
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## SPECIAL: Safe Buildings and Water Security

- Improved Detection Technologies  
Biological and Chemical agents  
Portable Detectors
- Early Warning Security Systems
- Treatment for Contaminated Water  
Clean-Up of Contaminated Systems
- Building Decontamination Systems

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## FY 2003 Regular Solicitation Topics

- A. Nanomaterials and Clean Technology
- B. Treatment and Monitoring of Drinking Water
- C. Municipal and Industrial Wastewater Treatment
- D. Hazardous Waste Management and Site Remediation
- E. Recycling of Municipal and Industrial Solid Waste

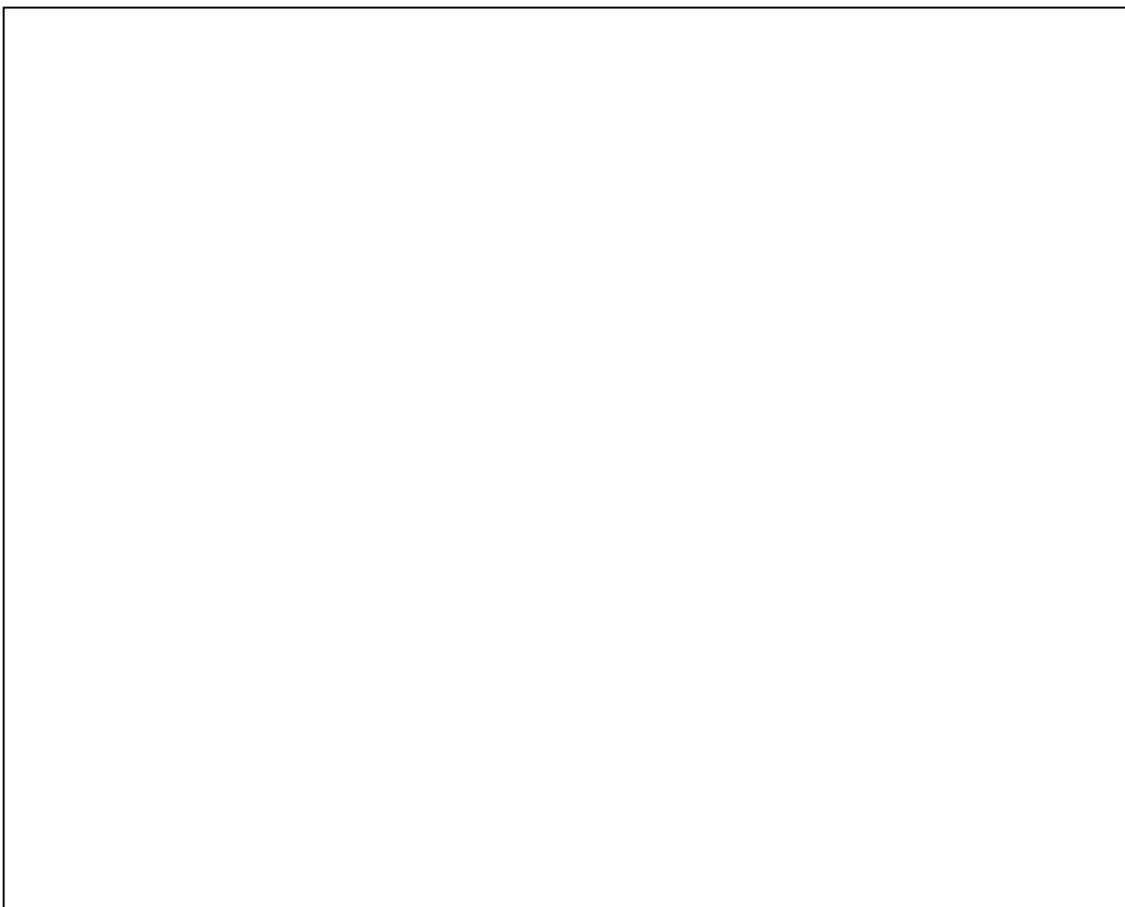
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# FY 2003 Research Topics

- Nanomaterials and Clean Technology

- Nanotechnology
- Pollution Prevention
- Green Chemistry
- Priority Industries

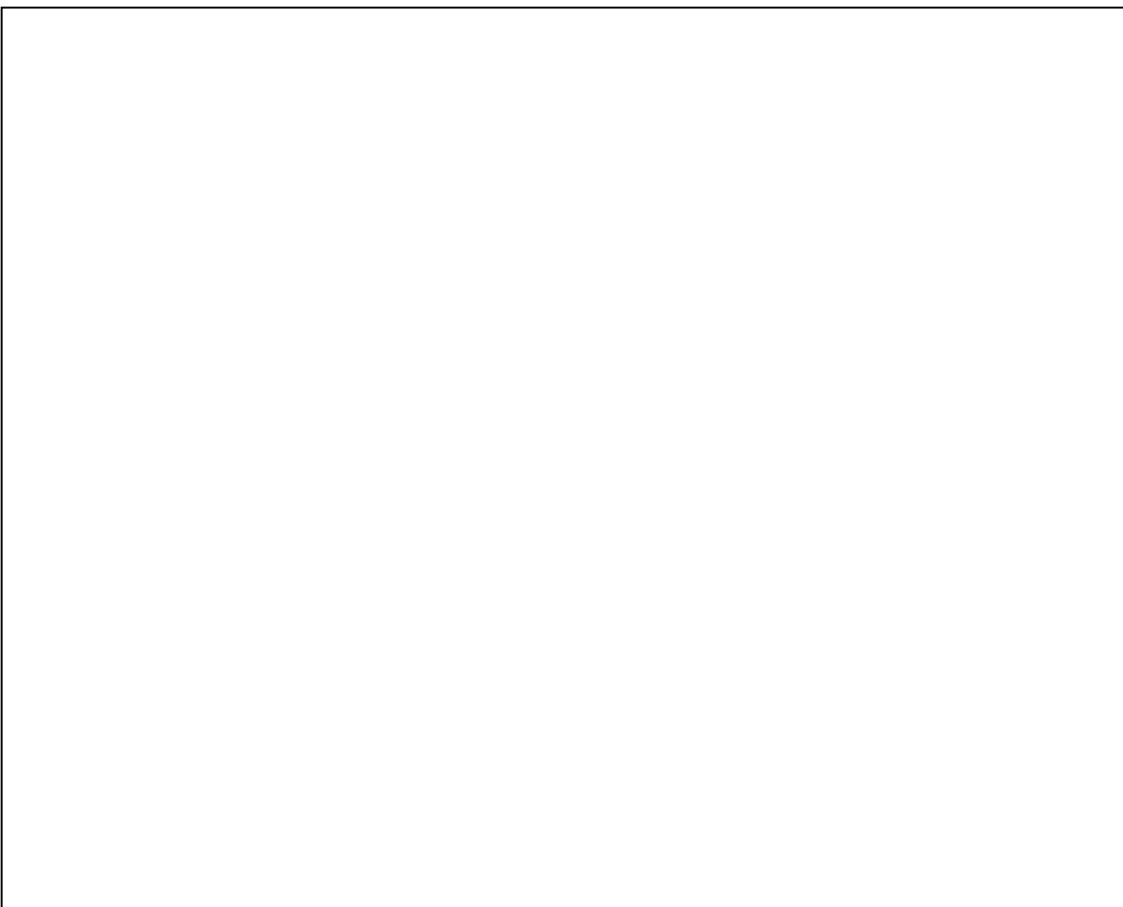
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## FY 2003 Research Topics

- Treatment and Monitoring of Drinking Water
  - Drinking Water Treatment
  - Small, Inexpensive Systems
  - Cryptosporidium, Arsenic, Chemicals
  - Monitoring of Drinking Water Quality

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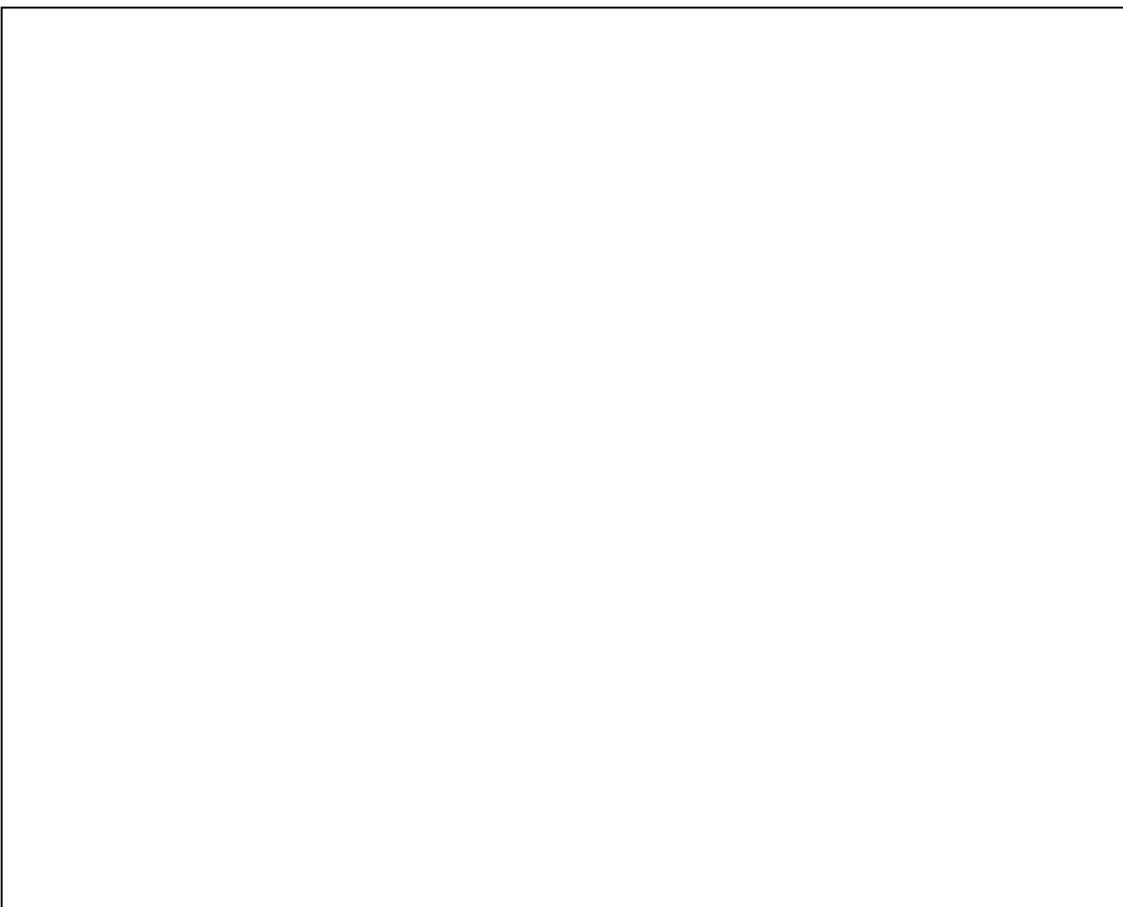


## FY 2003 Research Topics

- Wastewater Treatment

- Municipal Wastewater
- Industrial Wastewater
- Stormwater and CSOs

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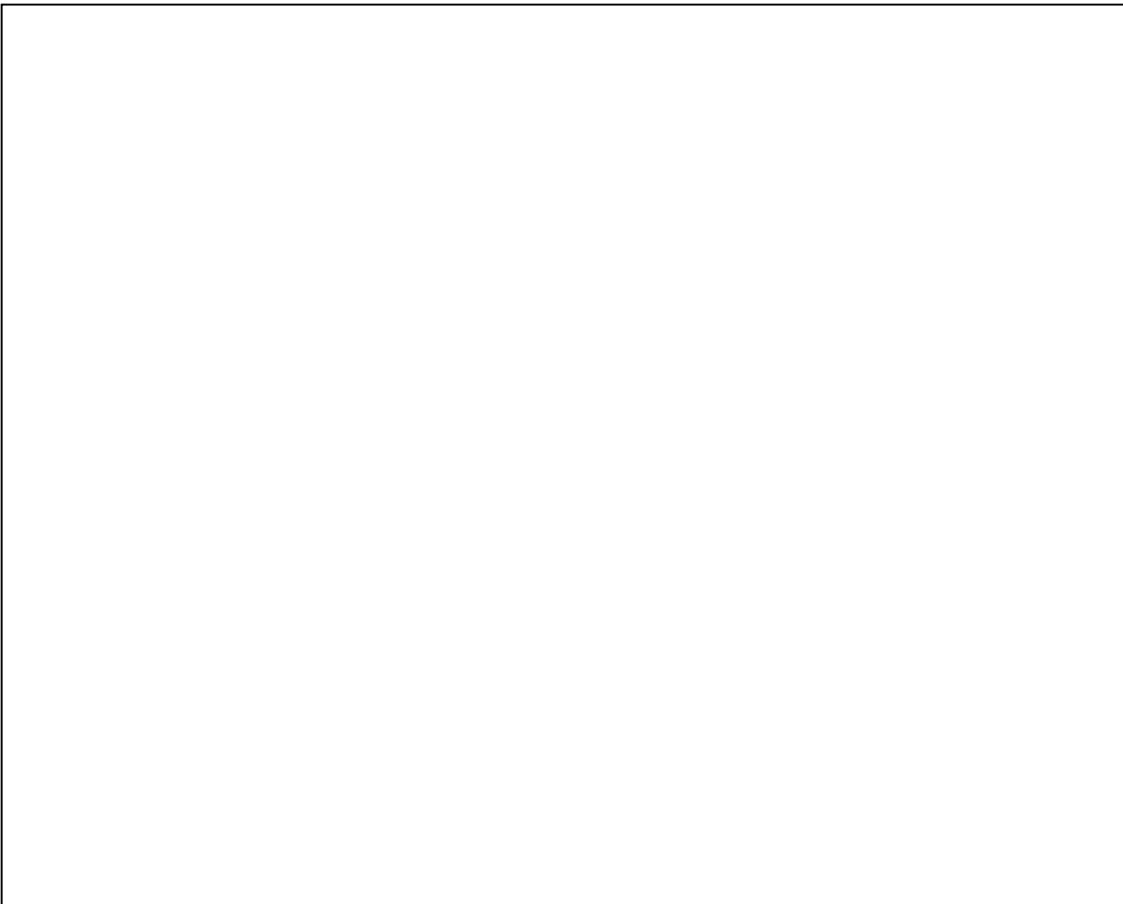


# FY 2003 Research Topics

- Hazardous Waste Management and Site Remediation

- Hazardous Wastes
- Site Cleanup
- Soil, Sediments and Ground Water

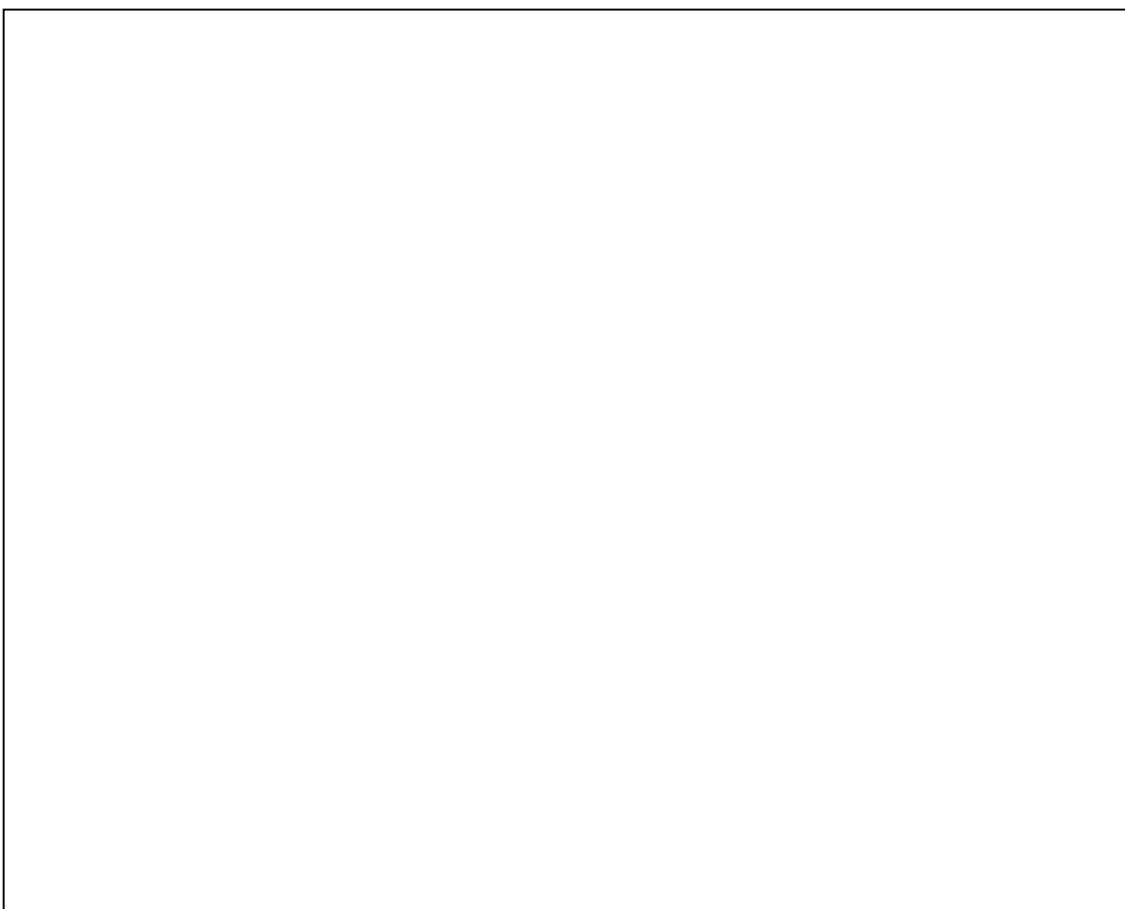
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## FY 2003 Research Topics

- Recycling of Municipal and Industrial Solid Waste
  - Municipal Solid Waste
  - Industrial Solid Waste
  - Electronics Recycling

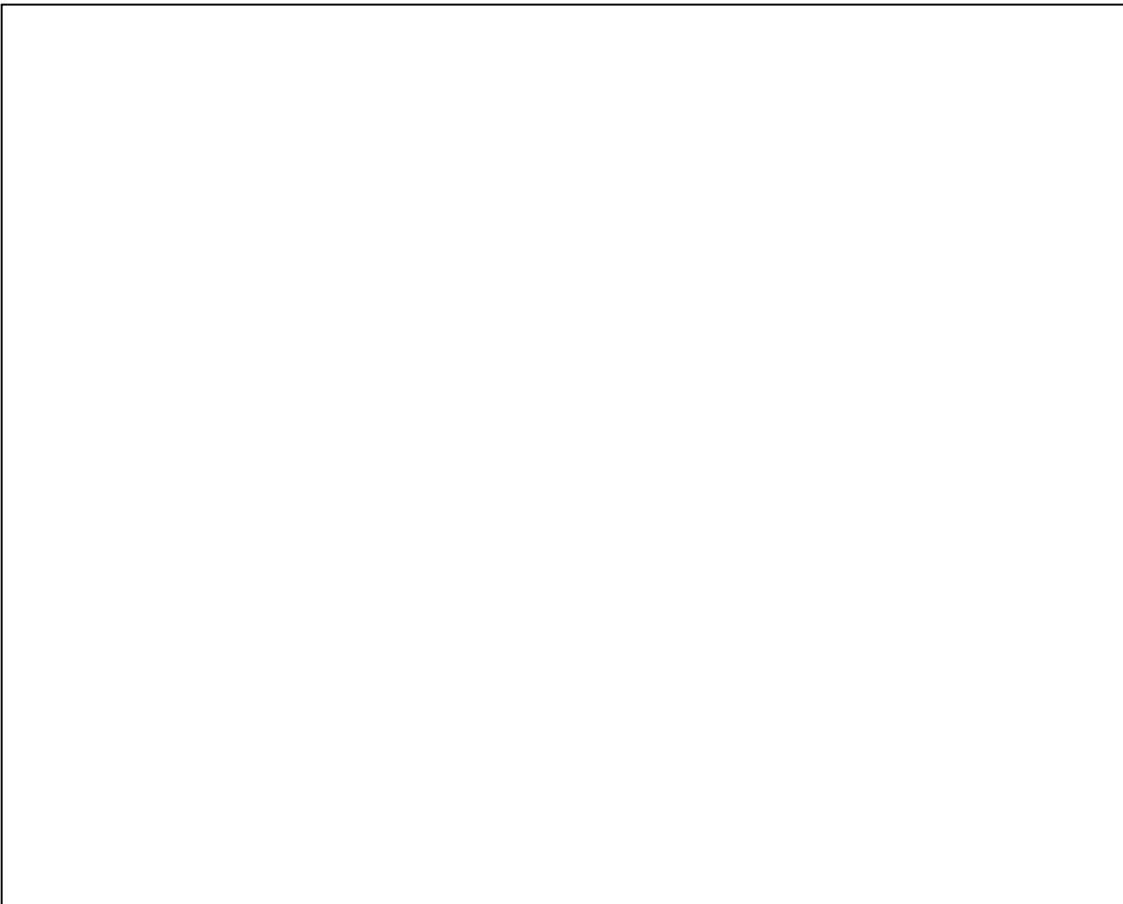
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## Proposal Preparation Requirements

- 25 Page Limit for Phase I Proposals
- Original +9 Copies to EPA / RTP by Deadline
- Abstracts: Complete and Provide Good Project Summary
- Technical Content of Proposal

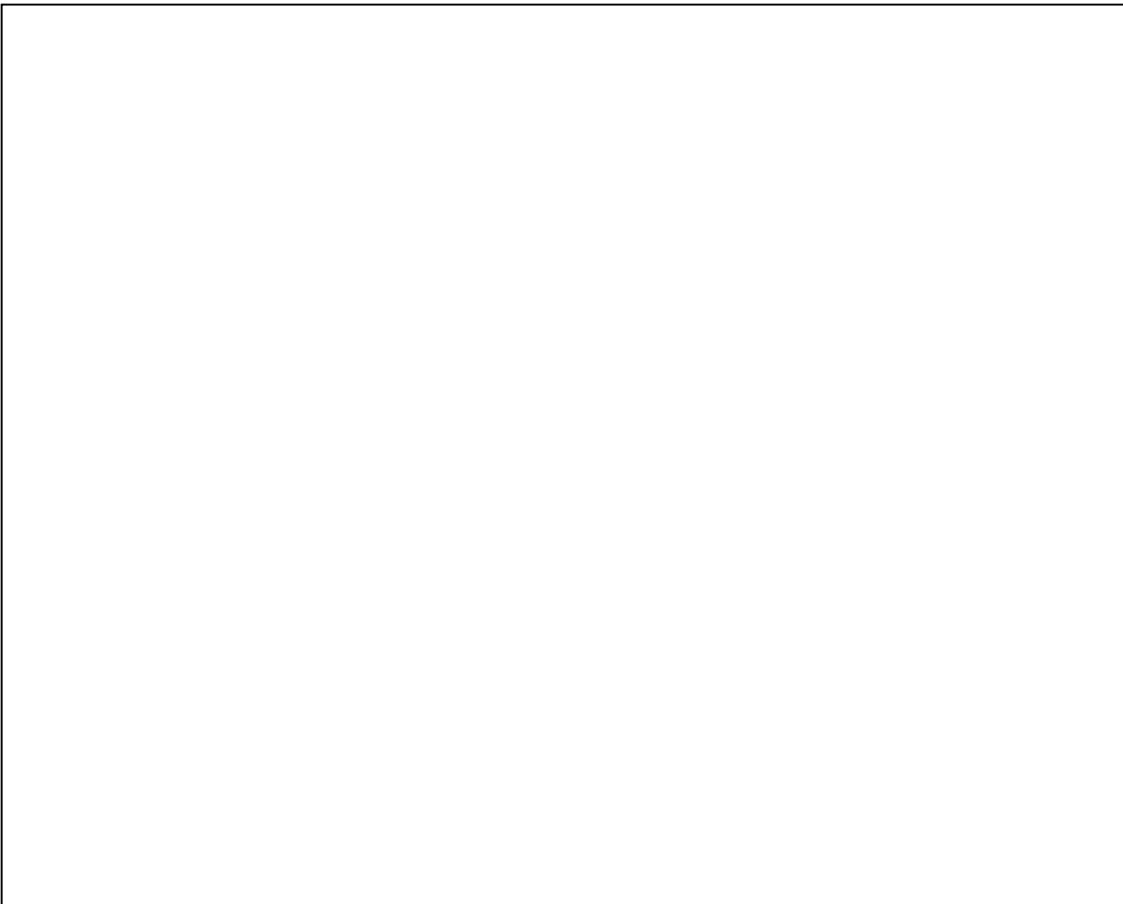
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## Phase I Proposals (25 Pages)

- Proposal Cover Sheet
- Abstract
- Technical Content
- Cost Breakdown and Proposal Budget
- Quality Assurance Narrative

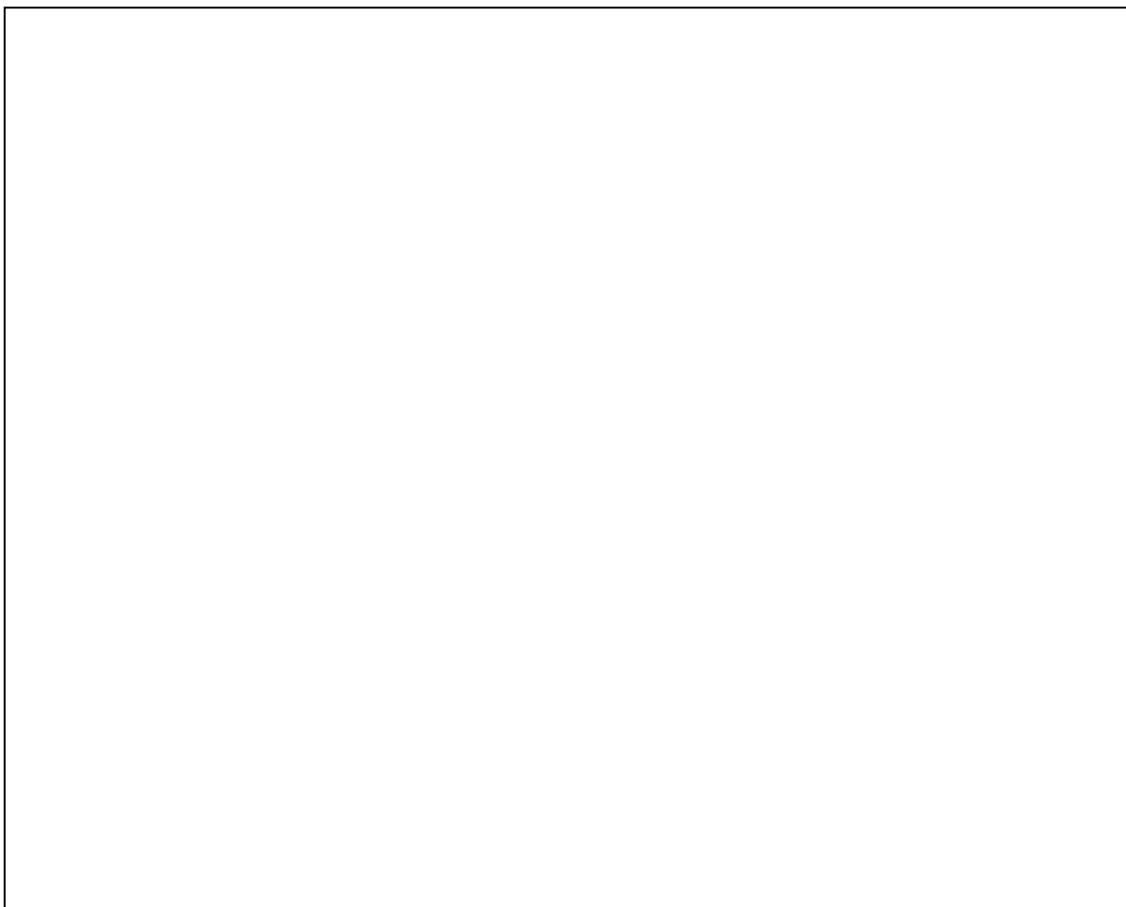
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## Technical Content Of Proposal

- Significance of Problem and Environmental Benefits
- Phase I Technical Objectives
- Phase I Work Plan

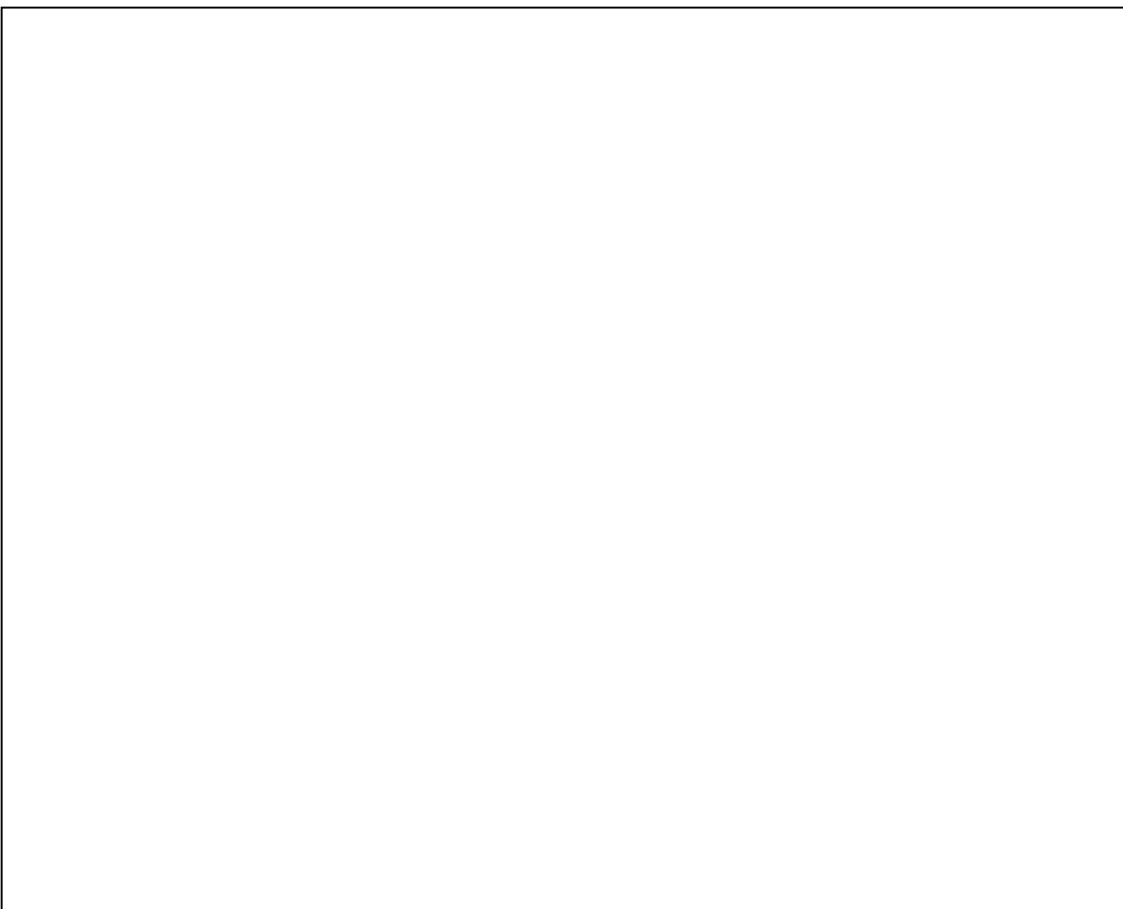
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## Phase I Work Plan

- Should be Major Part of Proposal, Maybe 10+ Pages
- What Will be Done, Where and How
- Details to Allow Thorough Scientific and Technical Review
- Include Work Schedule and Timeline

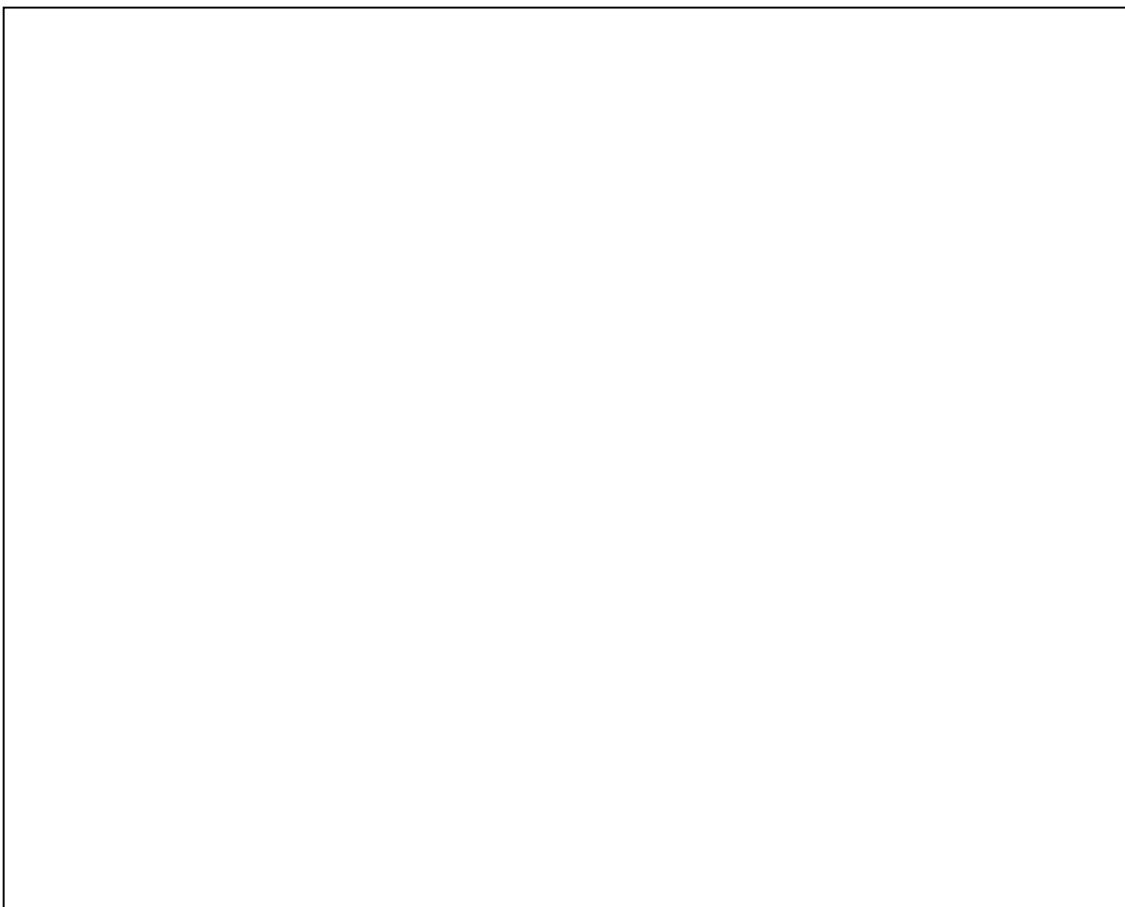
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## Technical Content Of Proposal (Continued)

- Phase I Work Plan
- Related R&D (Show Awareness of Recent Research)
- Key Personnel, Consultants and Facilities
- Future Research (Phase II Expectations)
- Commercialization Plan

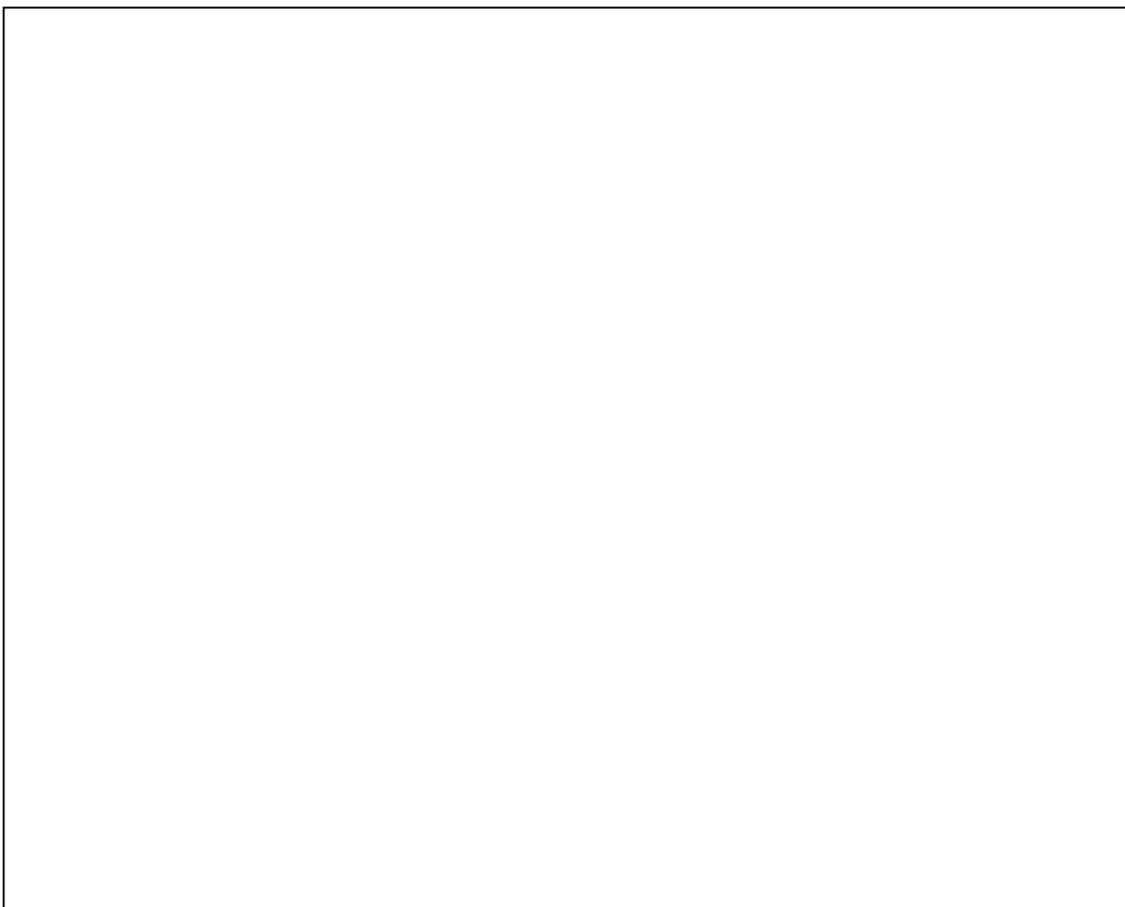
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## Commercialization Plan

- Abbreviated 2-3 Page Roadmap for Commercialization
- We Provide Help During Phase I
- Commercial Applications
- Competitive Advantages
- Markets and Business Approach

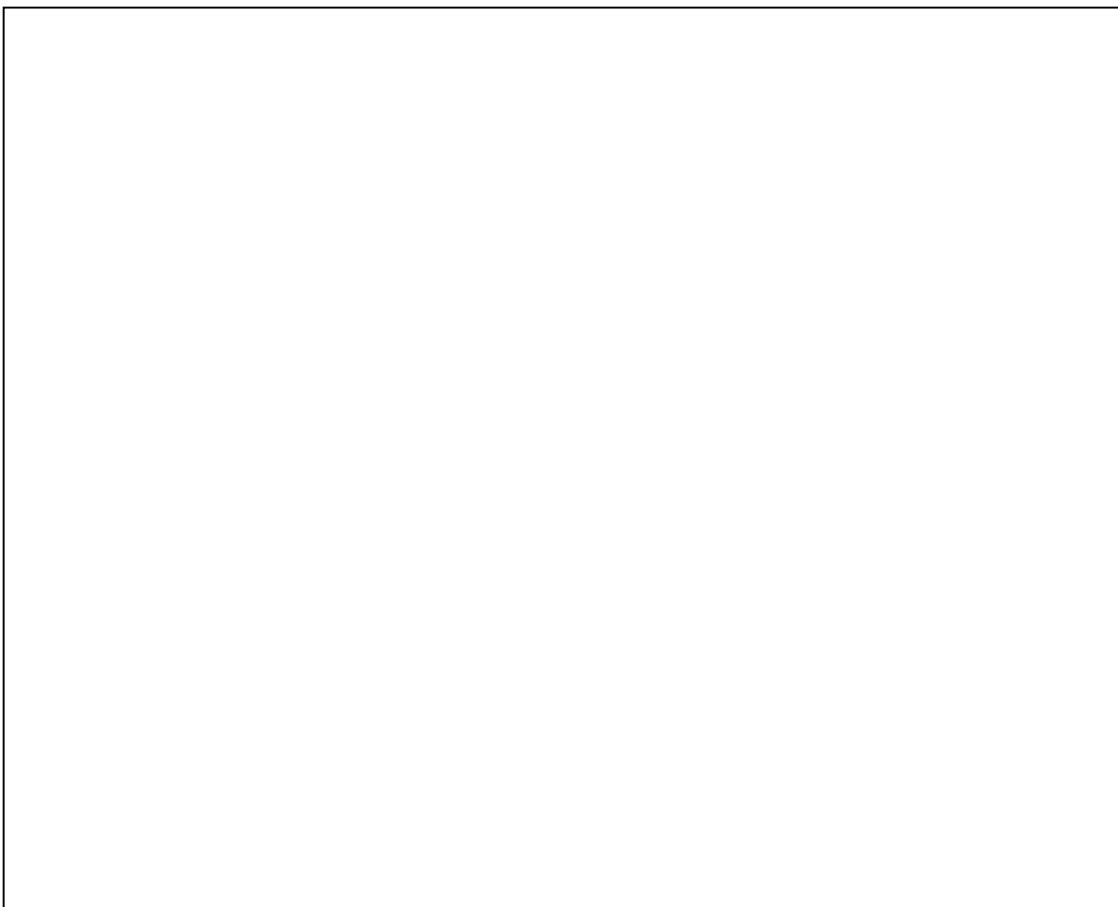
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## Technical Content of Proposal (Continued)

- Commercialization Plan
- Similar Awards
- Duplicate Awards
- Prior SBIR Awards

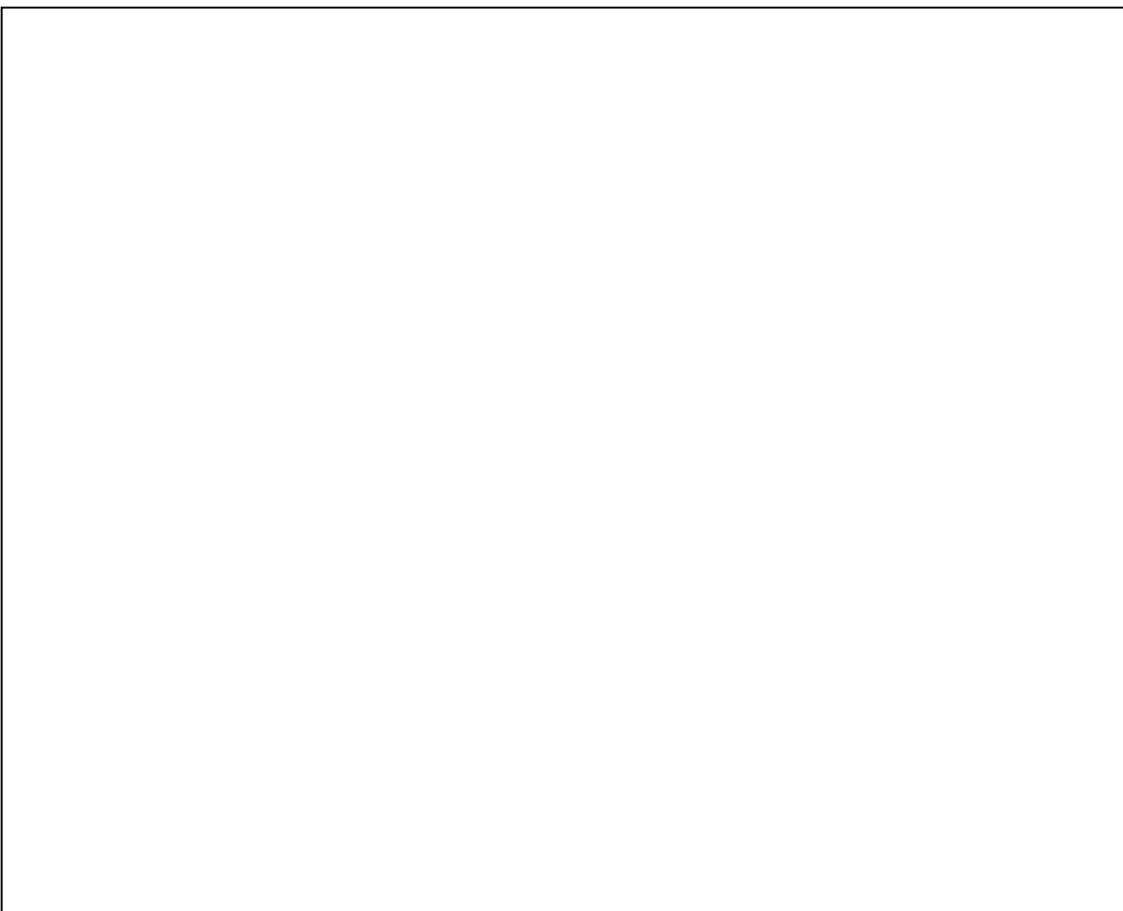
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## Other Considerations

- Cost Sharing
- Fee or Profit
- Joint Ventures / Limited Partnerships

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## SBIR EVALUATION AND SELECTION



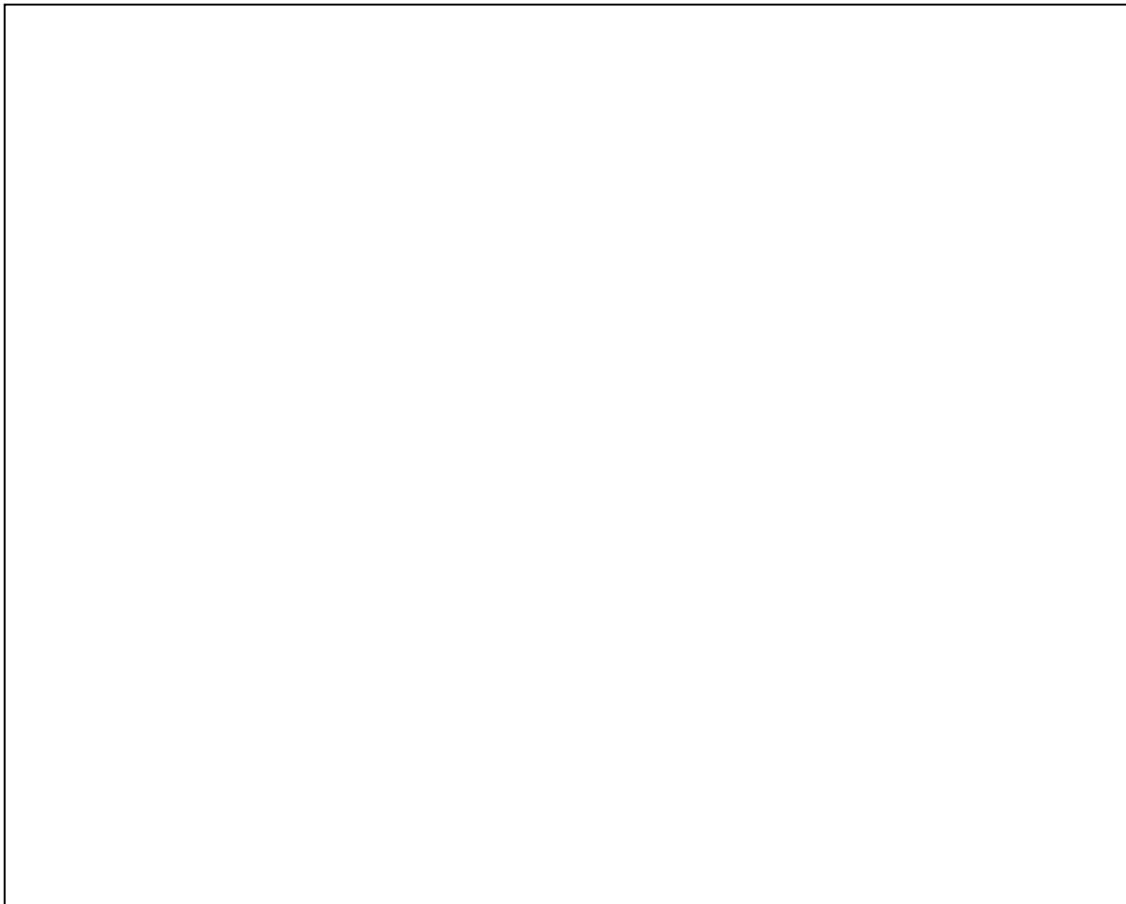
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### Evaluation and Selection Process

## External Peer Review

- Excellent, Very Good, Good, Fair or Poor  
Five Criteria (Equal Weight)
  - Scientific / Technical Quality and Soundness
  - Uniqueness and Originality
  - Cost and Environmental Benefit
  - Qualifications of Team
  - Commercialization Potential

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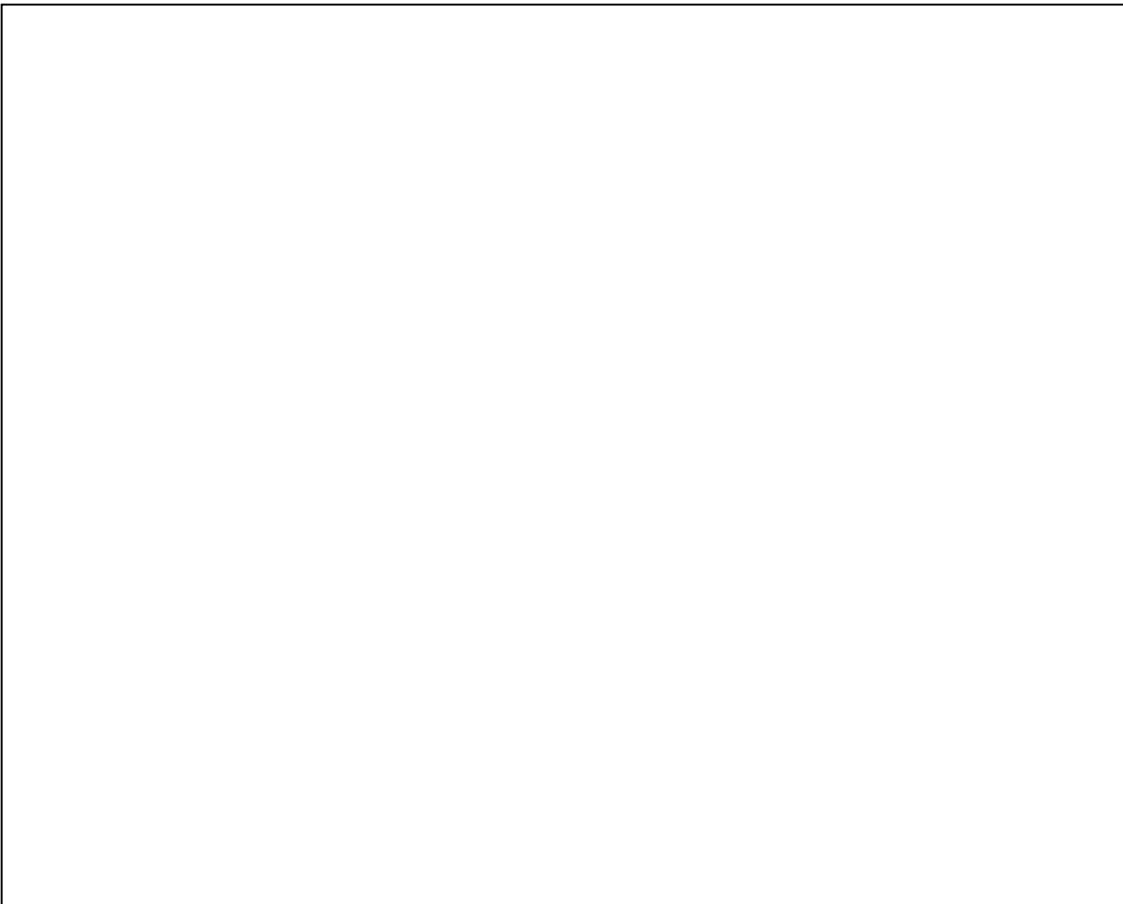


## Relevancy Review

- EPA Internal Program Review  
Only Review Excellent and Very Good Rated Proposals  
Three Criteria (Equal Weight)

- Meets EPA Needs and Program Priorities
- Significant Environmental Benefits
- Broad Application and Impact

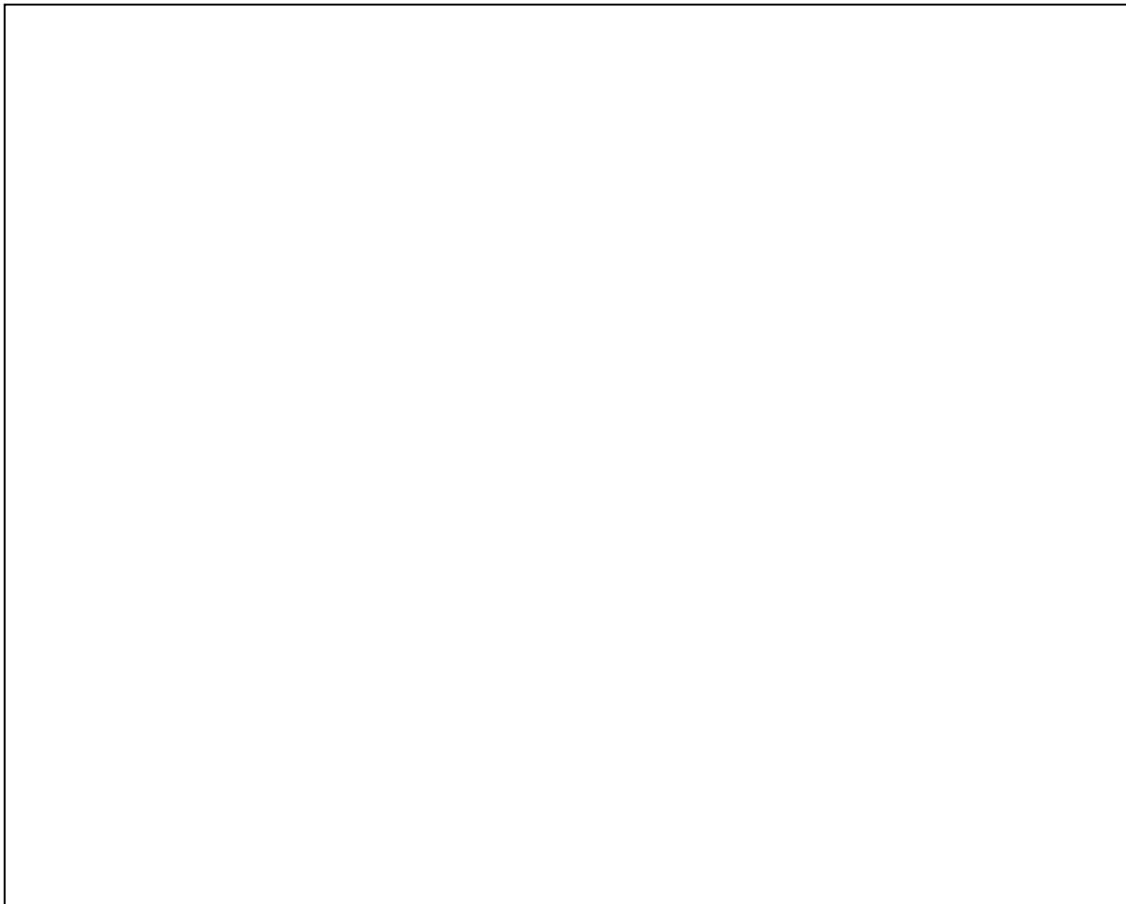
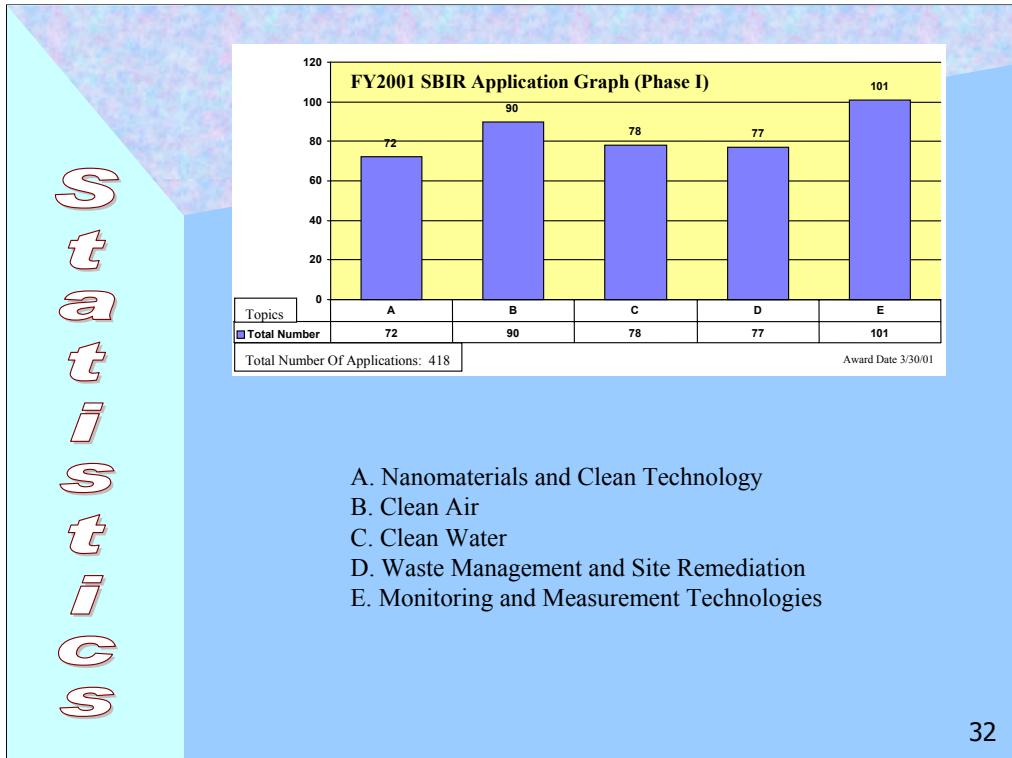
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## EPA SBIR Performance

- FY 1983 – 2000 Awards
  - 6000 Total Phase I Proposals
  - \$65 Million Awarded
  - Typical Awards Per Year
    - 30 Phase I Awards
    - 14 Phase II Awards

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## EPA SBIR AWARDS

<u>Number of Companies</u>	<u>Number of Phase I Awards Received</u>
1	16
3	6 - 15
4	5
4	4
3	3
19	2
119	1

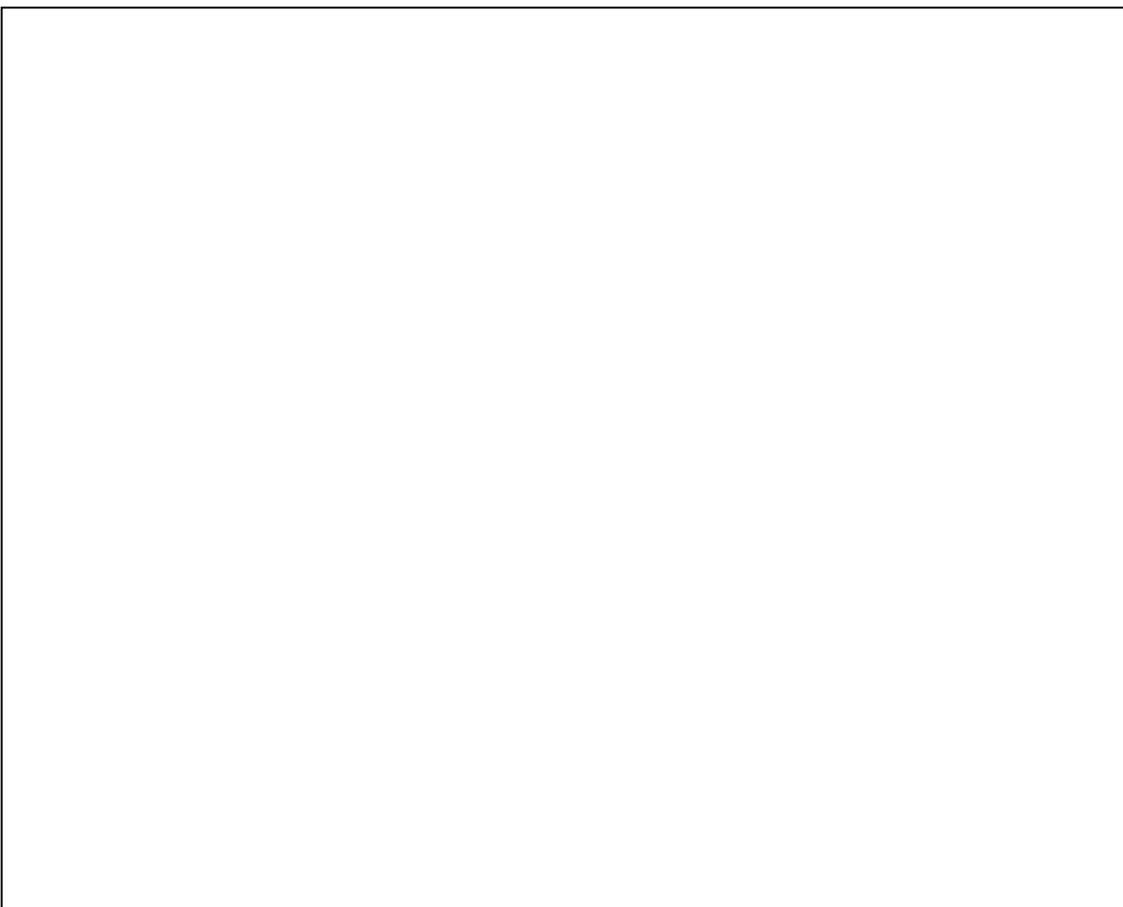
In 2002, about half of the Phase I Contracts were  
Awarded to Newcomers

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## How To Win An SBIR Award

- Read the Solicitation
- Review Topic Descriptions
- Search EPA Website for Previous Awards
- Understand the Problem and Build a Team
- Brainstorm, Plan and Select Approach

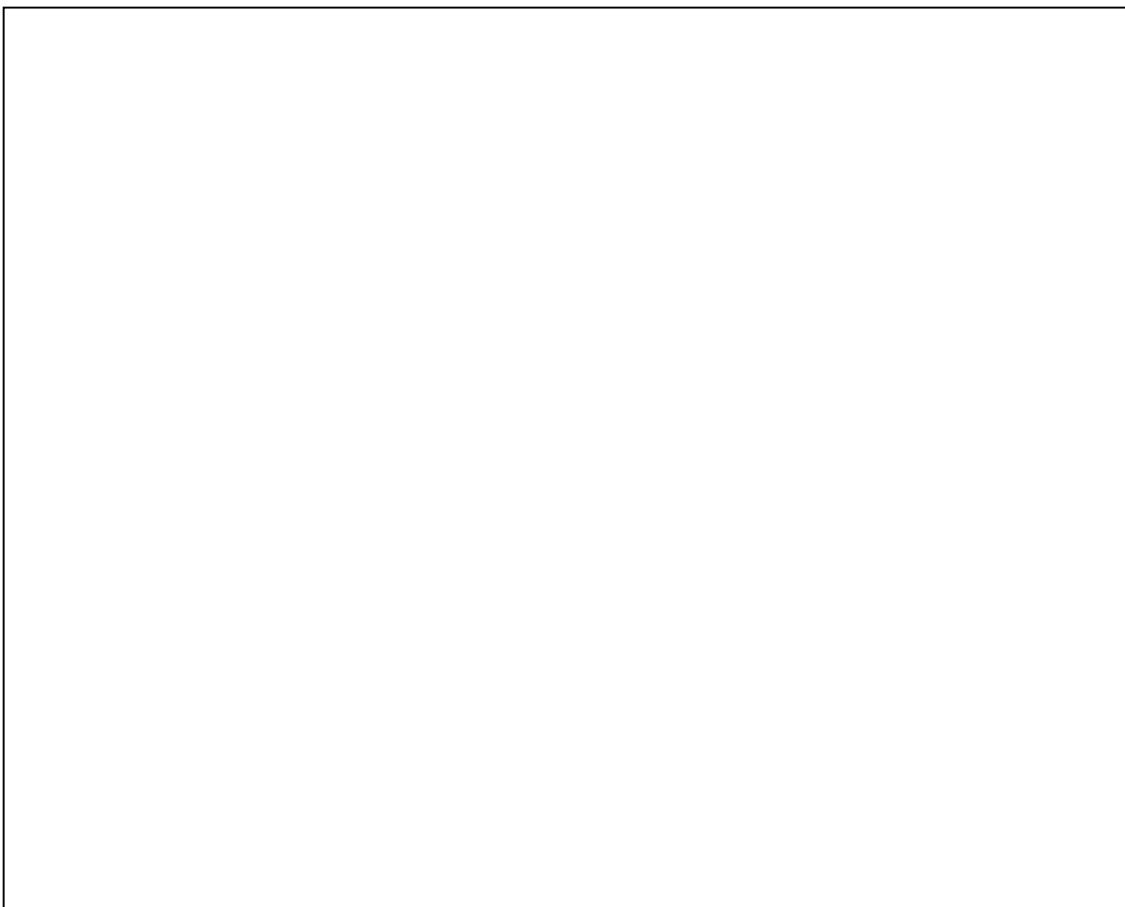
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## How To Win An SBIR Award

- Develop a Quality Proposal
  - Plan an Outline
  - Realistic Work plan
  - Broaden your Capability
  - Emphasize your Strengths
  - Show the Potential of your Idea
  - Show Clear Path to Commercialization
  - Use Key Figures and Tables
  - Don't Quit – Learn from Losing

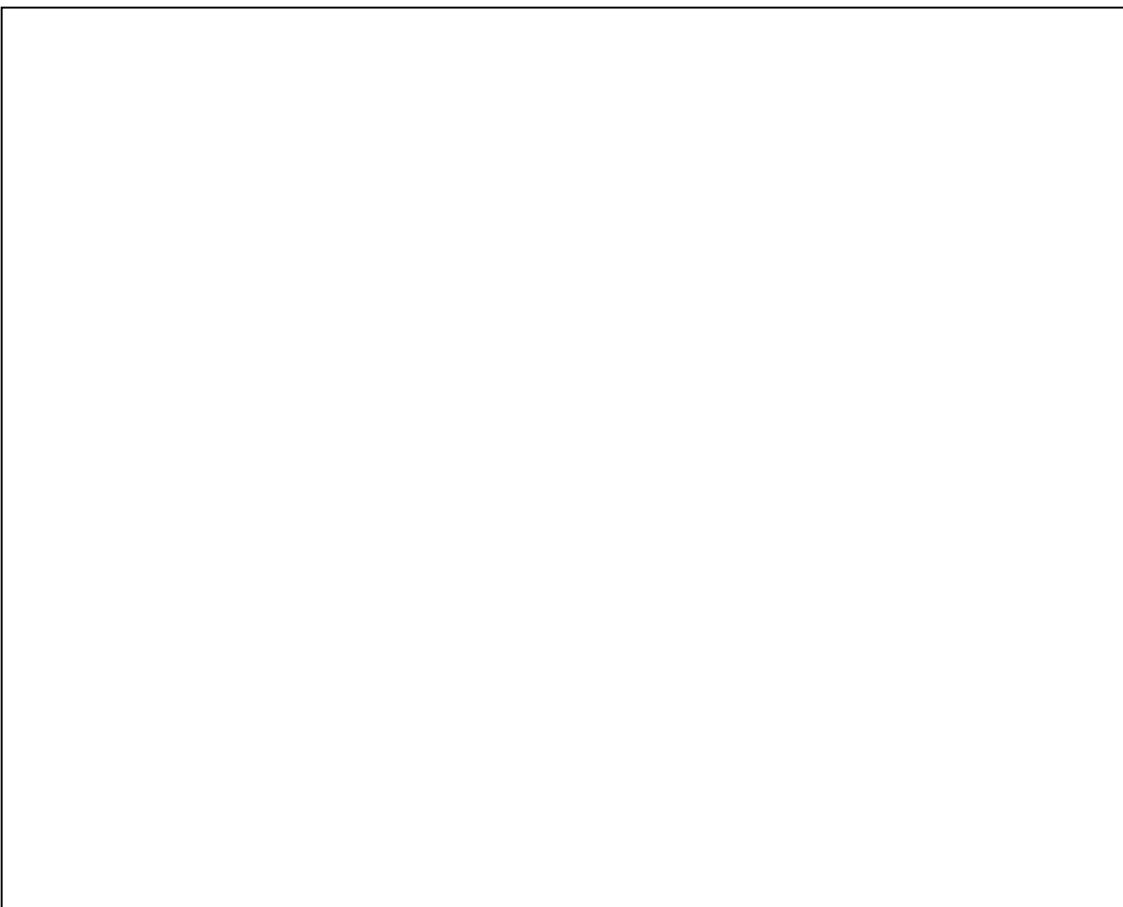
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## How To Win An SBIR Award

- Third Party Independent Evaluation
- Letters of Support
- Excellent Executive Summary

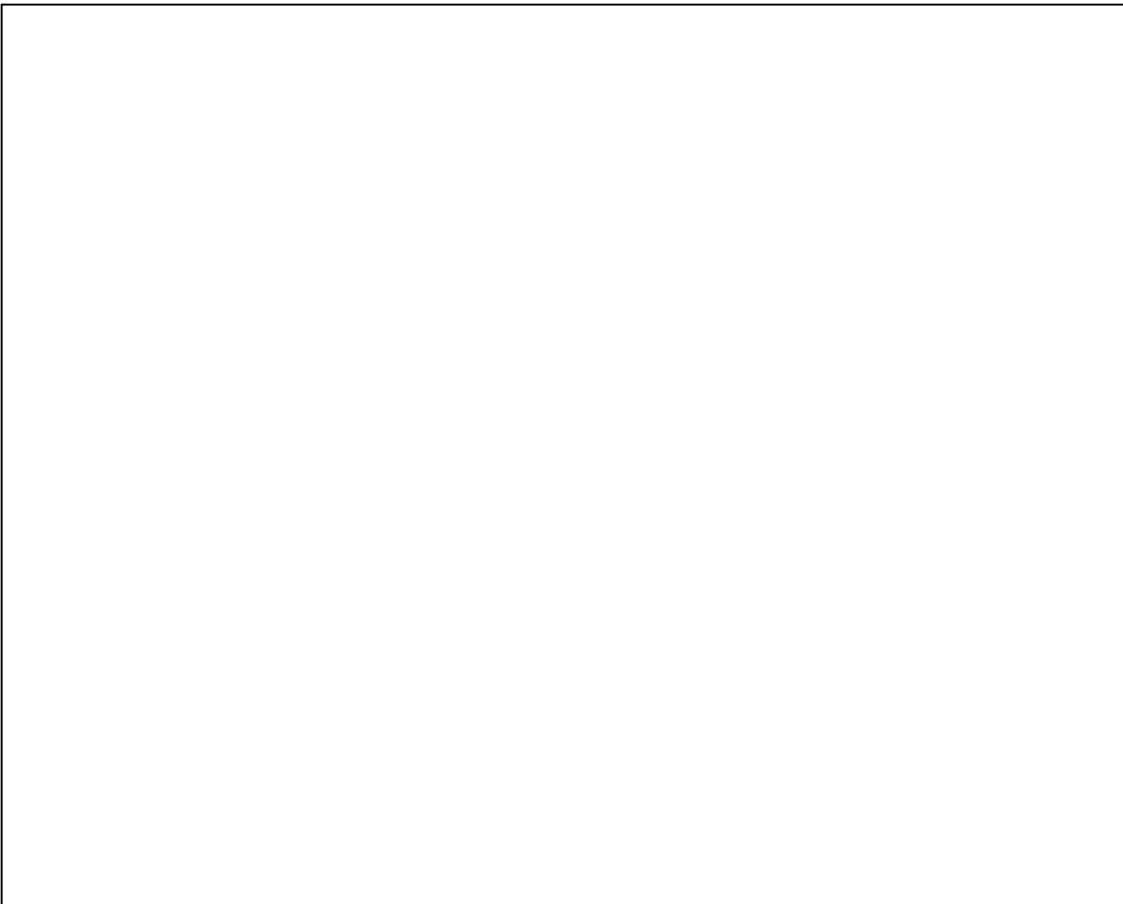
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## Formula For SBIR Success

- Address Agency Priority Needs
- Environmental Benefits
- Strong Competition / Innovative Proposals
- Technical Abstract
- Work Plan
- Technical Evaluation Criteria
- Relationship to Future Research
- Cost Breakdown

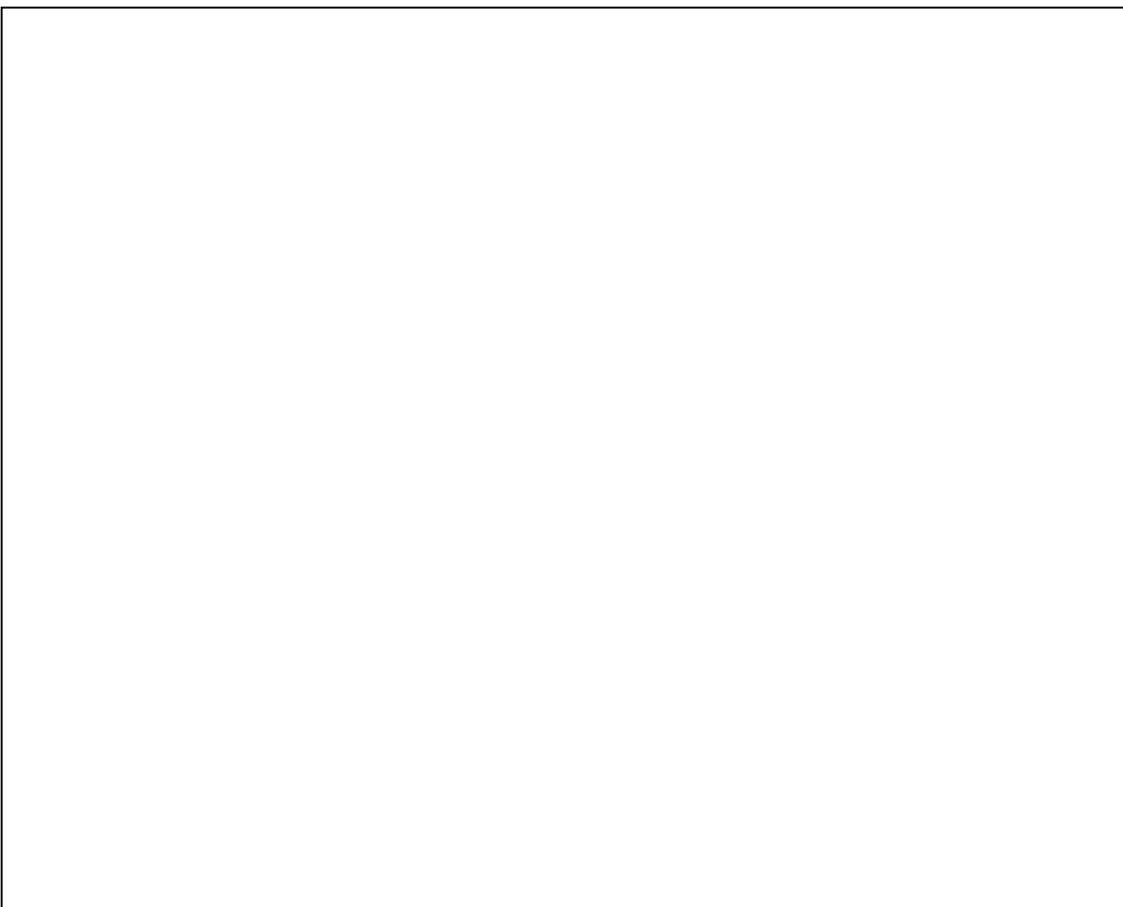
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## EPA WEBSITE

- [www.epa.gov/ncer/sbir](http://www.epa.gov/ncer/sbir)
- Listing and Abstracts of Phase I and Phase II Awards
- Technology Results
- Other SBIR Agency Environmental Technologies
- EPA SBIR Reports and Publications
- 1-800-490-9194 Telephone Helpline

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# Thank You

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

**Thank You**

[Links to Additional Resources](#)

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