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



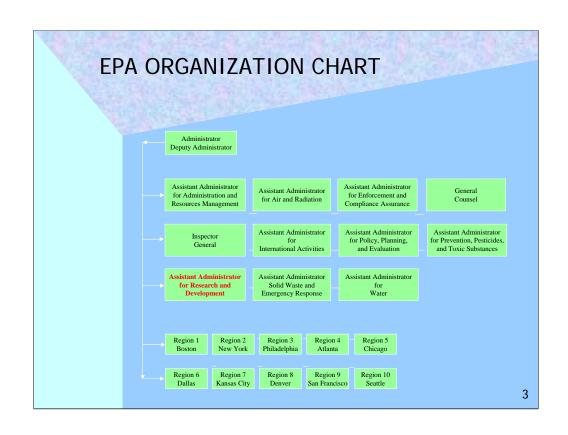


## INNOVATIVE SOLUTIONS FOR ENVIRONMENTAL PROBLEMS

### **EPA SBIR PROGRAM**

#### **ALL Phase I Solicitations**

- ➤ OPEN March 25, 2004
- ➤ CLOSE May 25, 2004



### 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

3All this helps the Agency to achieve its overall mission

\*New jobs, New Companies, New Products



## 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 \$7 Million)

#### 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)

### 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)
- Department of Homeland Security

#### 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

9

3All this helps the Agency to achieve its overall mission

\*New jobs, New Companies, New Products

### **EPA 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

### SBIR PHASE I -SOLICITATION AREAS

- SPECIAL: Pacific Environmental Problems
- SPECIAL: Hazardous Waste Minimization
- SPECIAL: Pollution Prevention
- REGULAR PHASE I SOLICITATION

#### SPECIAL: Pacific Environmental Problems

### Solicitation Subtopics

- ➤ Urban ENV Management in Arid Climates
- > Green Buildings
- > Technologies for Rural and Tribal Lands
- Dairy and CAFOs
- > Stormwater from Construction and Industry
- > Fuel Tank Evaporative Emissions

### SPECIAL: Hazardous Waste Minimization

- Solicitation Subtopics
  - Minimizing Priority Chemicals30 Organics and Metals
  - > Waste Gasification

### SPECIAL: Pollution Prevention

### Solicitation Subtopics

- > Automobile Green Supplier Networks
- ➤ Hospitals for a Healthy Environment
- > Flame Retardants
- Diisocyanates
- > Fragrances
- Industrial Design
- Printed Wiring Boards

### **REGULAR SBIR Solicitation**

- NanoMaterials
- Air Pollution Monitoring and Control
- Drinking Water and WasteWater Treatment
- Solid and Hazardous Waste Management
- Safe Buildings
- Drinking Water and Wastewater Security

- NanoMaterials
- ➤ New Nanoporous Filters
- ➤ Nanofiltration Membranes
- ➤ Nanoparticulate Catalysts
- ➤ MEMS and Nano Monitors

- Air Pollution Monitoring and Control
  - ➤ Heavy Metal Ambient Monitors
  - ➤ Improved Air Emission Monitors
  - ➤ Hazardous Air Pollutants
  - ➤ Low VOC Coatings

- Drinking Water and WasteWater Treatment
  - ➤ Inexpensive Small Treatment Systems
  - > Cryptosporidium, Arsenic, Chemicals
  - ➤ Clean Disinfection By-Products
  - ➤ Chemical and Biological Monitors

- Solid and Hazardous Waste Management
  - ➤ Hazardous Wastes

- ➤ Site Cleanup
- ➤ Soil and Sediments
- ➤ Ground Water Cleanup
- ➤ Solid Waste Recycling

Safe Buildings



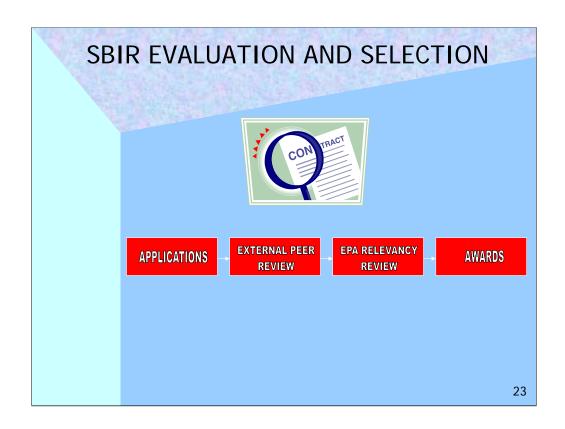
- ➤ Building Decontamination
- ➤ Better Building Design
- > Treatment of Contaminated Materials
- ➤ Biological/Chemical Field Kits

- Drinking Water and Wastewater Security
  - ➤ Water Protection Technologies
  - ➤ Wastewater Treatment Protection Systems
  - ➤ Biological/Chemical Monitoring



### 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



**Evaluation and Selection Process** 

### **External Peer Review**

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

### 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

### How To Win An SBIR Award



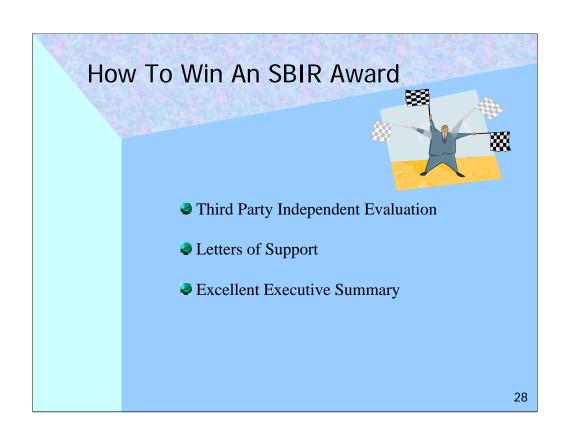
- Read the Solicitation
- Review Topic Descriptions
- Search EPA Website for Previous Awards
- Understand the Problem and Build a Team
- Brainstorm, Plan and Select Approach

### How To Win An SBIR Award





- ➤ Plan an Outline
- > Develop a 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



### 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

### **EPA SBIR PROGRAM**

- ALL Phase I Solicitations
- > OPEN March 25, 2004
- ➤ CLOSE May 25, 2004

### **EPA Website - Information**

- 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

