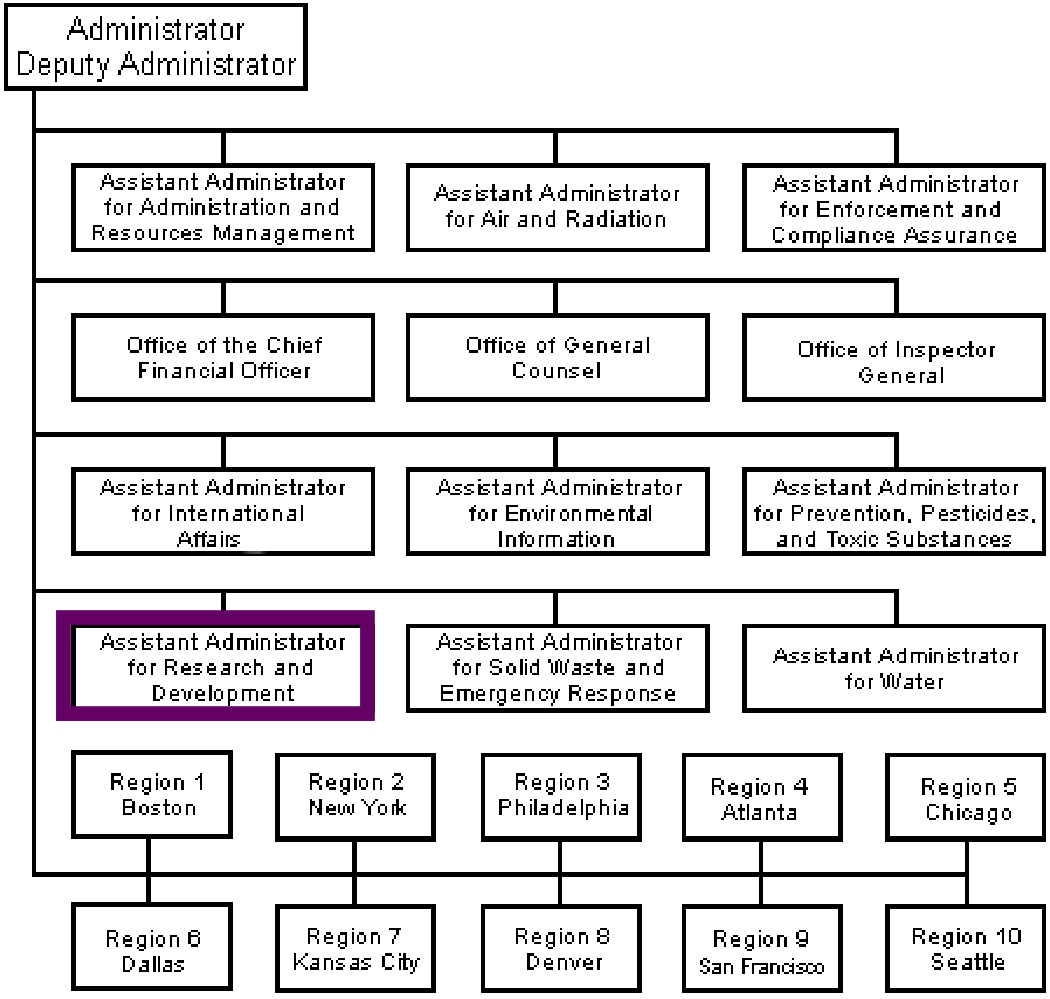
Environmental Protection Agency (EPA)

Small Business Innovation Research (SBIR) Program

Mission

- EPA:
  - Protect human health and the environment – air, water and land
- EPA SBIR:
  - Develop and commercialize innovative environmental technologies needed by EPA regions, regulatory and compliance programs and States

EPA Organization



SBIR Solicitation Schedule

- ALL Phase I Solicitations
  - Open March 25, 2005
  - Close May 25, 2005

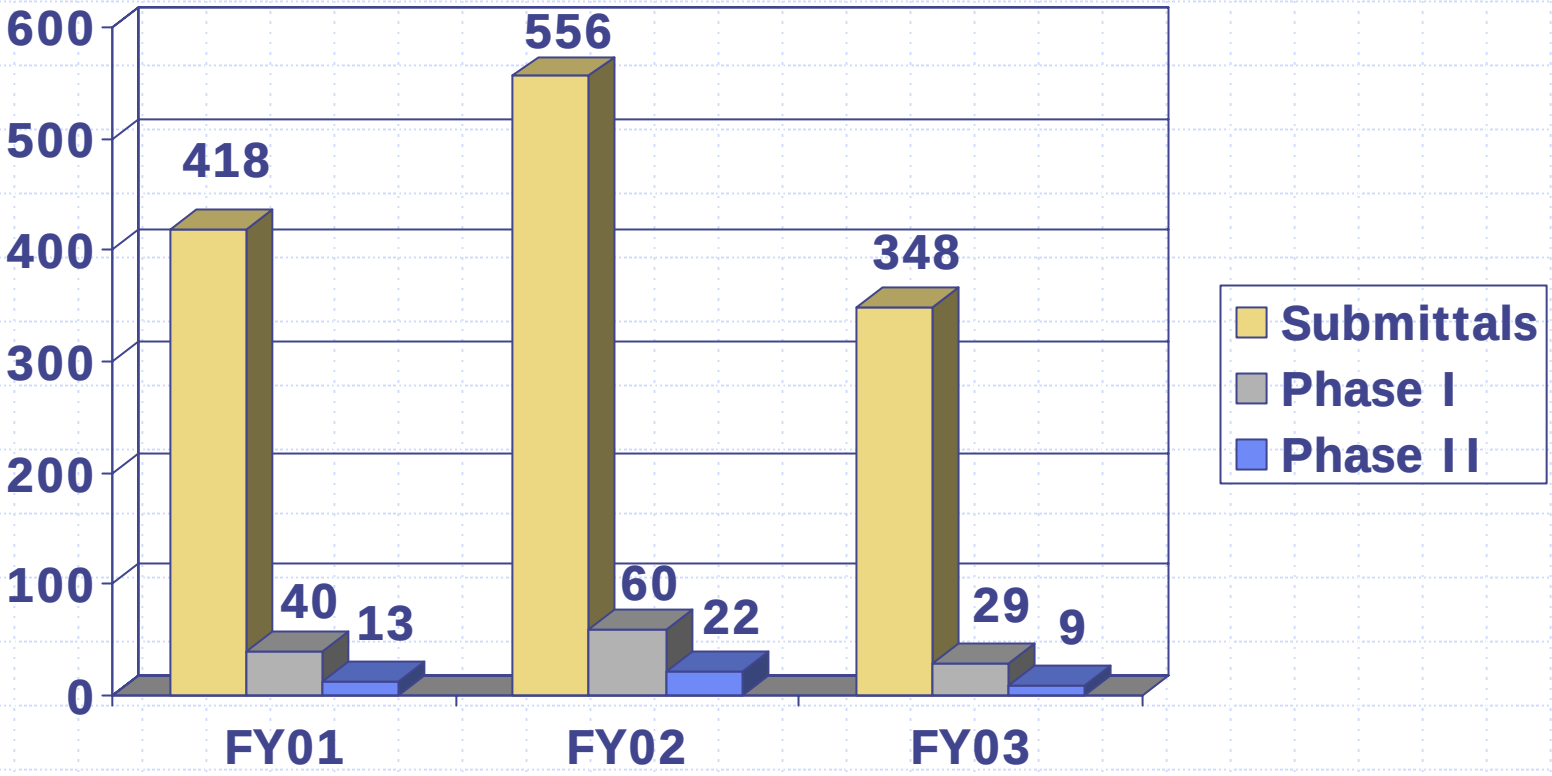
SBIR Award Schedule

- Phase I Solicitations Open
  - March 25 – May 25, 2004
- Peer Review - September 2004
- Relevancy Review - December 2004
- Phase I Contracts Awarded - February 2005
- Phase II Solicitations Open
  - July 28 – Sept 15, 2005
- Phase II Contracts Awarded - March 2006

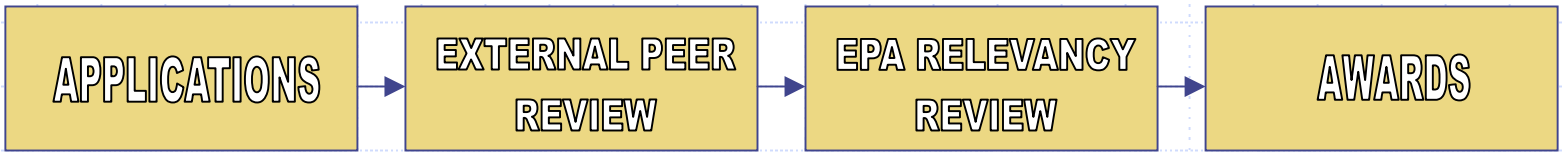
SBIR Awards

- Phase I
  - Proof of Concept
  - $70,000
  - 6 months
- Phase II
  - Develop Phase I technology with focus on commercialization
  - Up to $345,000 (with options)
  - 15 months

SBIR Success Rate



Proposal Evaluation and Selection



External Peer Review

- Ratings:
  - Excellent, Very Good, Good, Fair, Poor
- Five Criteria:
  - Scientific/Technical Quality and Soundness
  - Uniqueness and Originality
  - Cost Effectiveness and Environmental Benefit
  - Qualifications of Team
  - Commercialization Potential

Internal Relevancy Review

- EPA Internal Programmatic Review
- Review only those proposals rated Excellent and Very Good
- Evaluate Proposals on 3 Criteria:
  - EPA Needs and Program Priorities
  - Significant Environmental Benefits
  - Broad Application and Impact

Successful Proposals

- Meet agency priority needs
- Quantify environmental benefits
- Demonstrate innovation
- Have a strong technical abstract
- Have a realistic work plan
- Address technical evaluation criteria
- Show relationship to future research
- Address cost

Commercialization

- Provide Phase I Commercialization TA
- Require Commercialization Plan in Phase II proposal
- Offer two Options at Phase II:
  - Commercialization – Additional $70,000 for 3rd party investment
  - ETV – Additional $50,000 for participation in Environmental Technology Verification program

Solicitation Topics for 2005

- Mid-Atlantic (EPA Region III) Environmental Problems
- Pacific Northwest (EPA Region X) Environmental Problems
- Critical EPA Technology Needs (from Environmental Technology Council)
- Regular EPA Research Topics

Mid-Atlantic (EPA Region III) Environmental Problems

- Poultry and CAFOs
- Lead in Drinking Water
- Pollutant Markers
- Sediment Cleanup
- Stormwater and Urban Runoff

Pacific Northwest (EPA Region X) Environmental Problems

- Biodiesel and Diesel Retrofit
- Marine Vessels and Ports
- Energy and Oil Pollution
- Gold and Other Mining
- Tribal Drinking Water Systems

Critical EPA Technology Needs
(from Environmental Technology Council)

- Beach Pollution
- Ultrafine PM Removal
- Waste Gasification
- Landfill Closure
- Contaminants in Drinking Water
- Innovation in Manufacturing

Regular EPA Research Topics

- Nanomaterials and Pollution Prevention
- Air Pollution Control
- Drinking Water and Wastewater
- Solid/Hazardous Waste Management
- Safe Buildings and Water Security
- Environmental Monitoring

SBIR Success Story – Compact Membrane Systems

- High Gas Flux and Chemically Resistant Membranes
- Retrofit for diesel engines and generators
- Reduces NOx emissions in diesel engines by 50%

- Will provide Region I with a solution to enforcement issue. Otherwise would fine polluters but no technology available to meet regulation

SBIR Success Story - NITON

- Lead Paint Analyzer
  - Can detect lead in paint, in soil and on filters
- Industry standard for analysis of lead in paint
- Received R&D 100 Award
- Received Lead Tech Product of the Year Award
- Participated in ETV Program

Contact Information

- Website:
  - www.epa.gov/ncer/sbir
- Hotline:
  - 1-800-490-9194