



U.S. Department of Energy  
Energy Efficiency and Renewable Energy

*industrial technologies program*

# Small Business Innovation Research (SBIR) & Small Business Technology Transfer (STTR) Programs

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## SBIR/STTR -- Key Information

### SBIR

### STTR

### Solicitation

Release Date

October 15, 2002

Closing Date

January 14, 2003

Award Selection

May 16, 2003

**FY 2002 Budget**

**\$94M (2.5%)**

**\$5.6M (0.15%)**

### FY 2002 Awards

Phase I

231 (\$ 100K)

18 (\$ 100K)

Phase II

100 (\$ 750K)

11 (\$ 500K)

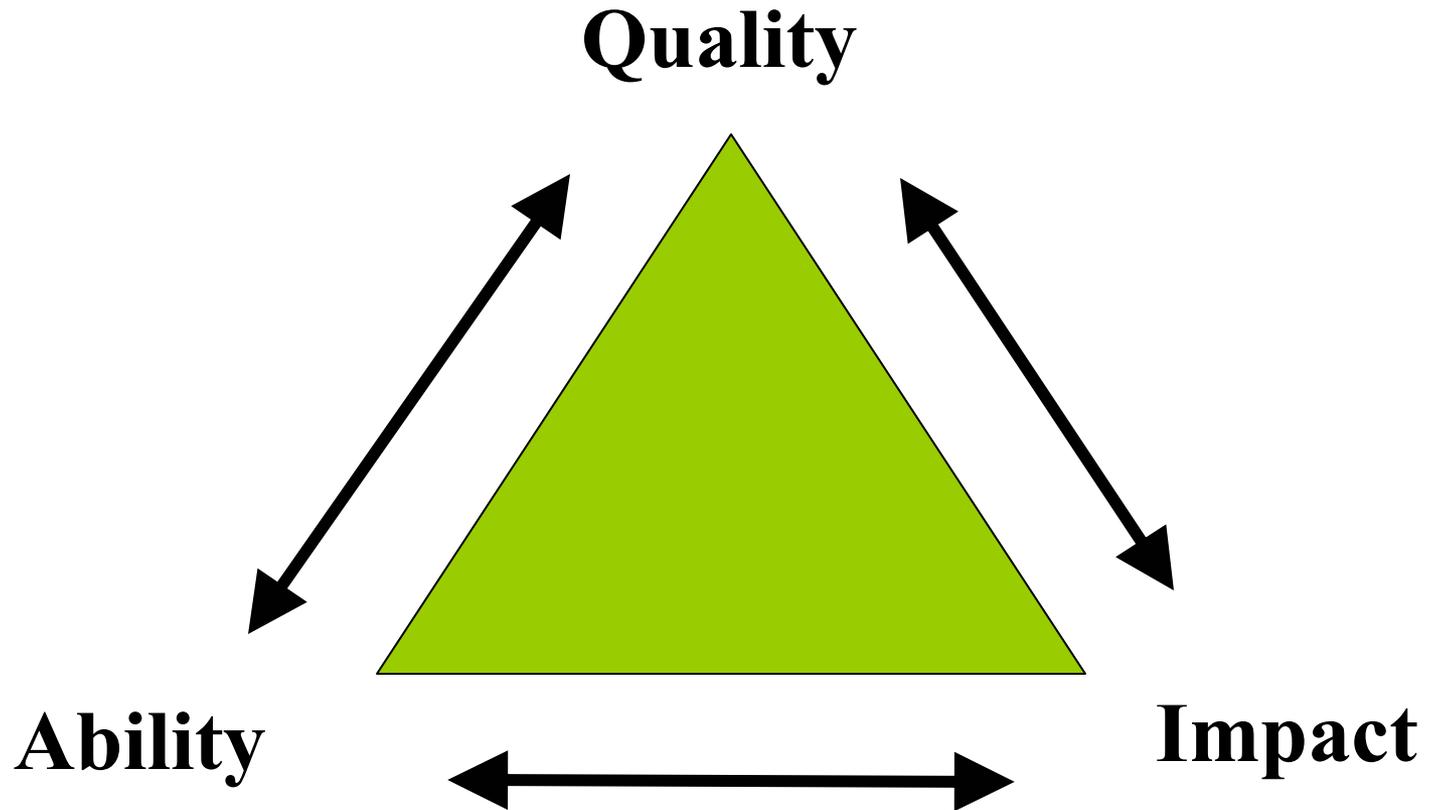


## Reasons for First-Step Declination

- **Not responsive to the technical subtopic designated.**
- **Technical approach indicates that the application is not likely to stand a reasonable chance for an award, in comparison with other applications.**
- **Duplicates work already funded.**
- **Insufficient information provided for full technical review.**
- **Neither research nor research and development.**



## STTR Evaluation Criteria





# EVALUATION CRITERIA PHASE I & II

## **Scientific/Technical Quality** as evidenced by:

- **Strength and innovativeness of the idea**
- **Strength and innovativeness of the approach**
- **Significance of the scientific or technical challenge**
- **Thoroughness of the presentation**



## **EVALUATION CRITERIA PHASE I & II**

**Ability to Carry out the Project as evidenced by:**

- **Qualifications of the Principal Investigator other key staff and/or consultants**
  - **Soundness of the work plan to show progress toward proving the feasibility of the concept**
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- **Adequacy of equipment and facilities (Phase I)**
  - **Degree of Success of Phase I objectives at time of Phase II application (Phase II)**



# EVALUATION CRITERIA PHASE I & II

## **Impact** as evidenced by:

- **Significance of the technical and/or economic benefits for the proposed work**
- **Likelihood that the proposed work could lead to a marketable product or process**
- **Likelihood that the project could attract further development funding after the project ends**



# **EVALUATION CRITERIA**

## **PHASE II Only**

### **Commercial Potential:**

- **Small business's record of commercializing SBIR or other research**
- **Phase II funding commitments from private sector or non-SBIR funding sources**
- **Phase III follow-on funding commitments**



## **SBIR Commercialization Assistance**

- **Commercialization Assistance Program (CAP) provides assistance with business planning and presentations to potential investors.**

- Culminates in Commercialization Forum—awardees make presentations to venture capitalists and large company representatives.

- 50% of previous participants have achieved increased sales or obtained investments, which totals over \$400 million.

- **Technology Niche Assessments**

- Pilot program started in FY 1998.

- Identifies possible partners for SBIR Phase II awardees.



# FY 2003 Topic Titles

## Energy Production

### Fossil Energy

**Advanced Fossil Fuels Research**

**Measurement and Technology for Gasifiers**

**Materials, Sensors, and Controls for Advanced Power Systems**

**Fuel Cell Research**

**Greenhouse Gases and Water Resources**

**Natural Gas Technologies**

**Oil and Fuel Technologies**

### Nuclear Energy

**Advanced Technologies for Nuclear Energy**



# FY 2003 Topic Titles, (cont'd)

## Energy Production - Future

### Fusion Energy

**Fusion Science and Technology**

**Advanced Technologies and Materials for Future Fusion Energy Systems**

**Inertial Fusion Energy**

### Renewable Energy

**Biomass**

**Biobased Products and Bioenergy**

**Separation Technology for the Direct Capture of Bioproducts and  
Biofuels from Fermentation and Other Biotransformations or  
from Thermochemical Transformations**



# FY 2003 Topic Titles (cont'd)

## Energy Efficiency

### Transportation

**Energy Storage and Conversion for Electric and Hybrid Vehicles**

### Buildings

**Integrated Systems for Energy-Efficient Space Conditioning**

**Solid State Organic Light Emitting Diodes for General Lighting**

**New Technologies for General Illumination Applications**

### Industry

**Nanotechnology Applications in Industrial Chemistry**

**Nanomaterials for Energy Efficiency**

**Catalysis R&D for Chemical Manufacturing and Refinery Operations**

**Innovative Mineral Processing**

**Sensor, Communication, and Control Technologies for Energy Efficiency**



## FY 2003 Topic Titles, (cont'd)

### Environment

#### General

**Atmospheric Measurement Technology**

**Carbon Cycle Measurements of the Atmosphere and the  
Biosphere**

**Biological Carbon Sequestration Research and Technology**

**Measurement/Monitoring Technologies for the Subsurface  
Environment**

#### Clean-Up of DOE Sites

**Decontamination and Decommissioning of Facilities**

**Reactive Barriers and Monitoring Systems for Groundwater  
Remediation**



# FY 2003 Topic Titles (cont'd)

## High Energy and Nuclear Physics

### High Energy Physics

**Advanced Concepts and Technology for High Energy Accelerators**

**Radio Frequency Accelerator Technology for High Energy Accelerators and Colliders**

**High-Field Superconductor and Superconducting Magnet Technologies for High Energy Particle Colliders**

**Technologies for the Next-Generation Electron-Positron Linear Collider**

**High Energy Physics Detectors**

### Nuclear Physics

**Nuclear Physics Accelerator Technology**

**Nuclear Physics Detectors, Instrumentation, and Techniques**

**Nuclear Physics Electronics Design and Fabrication**



## FY 2003 Topic Titles, (cont'd)

### **Non-Proliferation of Weapons of Mass Destruction**

**Technologies for Nuclear Nonproliferation and Homeland Defense  
Support Technologies for Sensors Used in National Security Applications  
Enhanced Proteomics Signature Analysis in Support of Pathogen Detection,  
Bioinformatics, and Epidemiological Modeling**



# FY 2003 Topic Titles (cont'd)

## Underlying Technologies

### Life Sciences

#### Medical Sciences

#### Genome, Structural Biology, and Related Biotechnologies

### Materials

#### Materials Research for Advanced Nuclear Energy Systems

#### Neutron and Electron Beam Instrumentation

#### Innovative Mineral Processing

#### Nanomaterials for Energy Efficiency

### Data Management and Communication

#### High Performance Networks

#### Scalable Middleware and Grid Technologies

#### High Energy Physics Data Acquisition and Processing

#### Nuclear Physics Software and Data Management



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