# *The Advanced Technology Program In Partnership with NIST and the Nation*

**Executive Briefing**

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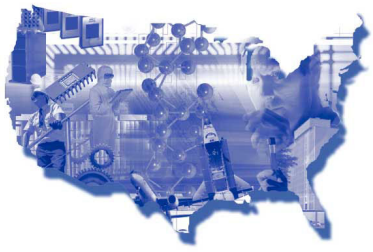
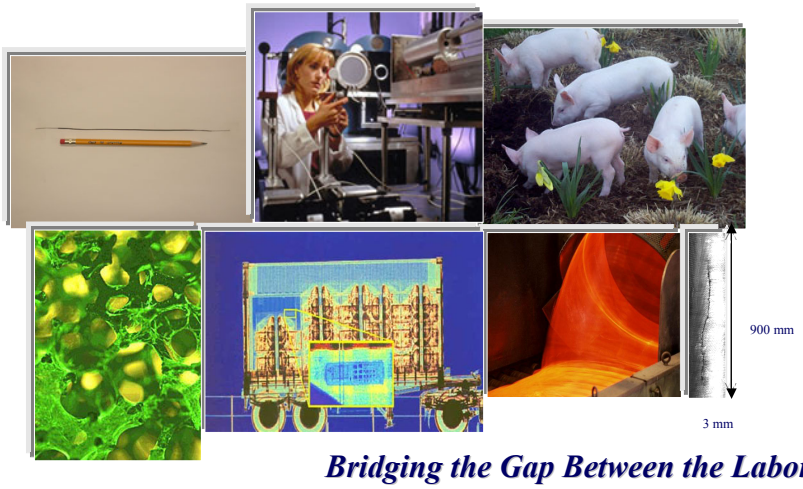
## *ATP Mission …*

*To **accelerate** the development of **innovative technologies** for **broad national benefit** through **partnerships** with the private sector.*



# Exciting New Technologies …




***Bridging the Gap Between the Laboratory and the Marketplace***



# The Difference ATP Makes

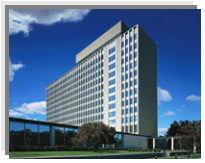
**With the ATP, R&D is:**

- ❑ **Higher risk**
- ❑ **Creating leap-frog technologies**
- ❑ **Leading to multiple applications**
- ❑ **Expanding company and national competencies**
- ❑ **Broadly diffused**

**ATP**

National Institute of Standards and Technology • Technology Administration • U.S. Department of Commerce

# NIST Mission …



Gaithersburg, MD

Boulder, CO

***Develop and promote measurement, standards, and technology to enhance productivity, facilitate trade, and improve the quality of life.***



# ATP is part of NIST


- $825 million FY2003 operating budget
- 3,000 employees
- 1,600 associates
- **NIST Laboratories**: National measurement standards
- **Advanced Technology Program**: $2,114 million co-funding with industry since 1990
- **Manufacturing Extension Partnership**: 400 centers nationwide to help small manufacturers
- **Baldrige National Quality** Award

***Helping America Measure Up***

## *The Competitive Environment*

- Advances in technology account for more than *50 % of U.S. economic growth*
- Global competition has forced a focus on *short-term return* on investment

- Now more than ever, our nation's economic well being depends on *rapid development and commercialization* of technology



## *Fourteen Years of Innovation*

- Since 1990, **5,587 proposals** submitted to **43 competitions,** requesting **$11,930 million** from ATP
- **709 projects awarded** with **1,433 participants** and an equal number of subcontractors
- **207 joint ventures** and **502 single companies**
- **$4,101 million** of **high-risk research** funded
  - ***ATP share = $2,114 million***
  - ***Industry share = $1,987 million***
- Small businesses are thriving
  - ***65% of projects led by small businesses***
- Over **160 universities** participate
- Over **25 national laboratories** participate

# Today's Investments …

### Electronics and Photonics ($519 M)
- Microelectronics
- Optoelectronics
- Optics Technologies
- Power Technologies
- Wireless Electronics
- Organic Electronics

### Biotechnology ($420 M)
- DNA Technologies
- Tissue Engineering
- Drug Discovery Methods
- Proteomics
- Medical Devices & Imaging
- Microfluidics

**Manufacturing ($244 M)**

### Information Technology ($484 M)
- Advanced Learning Systems
- Component-Based Software
- Digital Video
- Information Infrastructure for Healthcare
- Electronic Commerce
- Dependable Computing Systems
- Technologies for the Integration of Manufacturing Applications

### Chemistry and Materials ($447 M)
- Chemical Processing Sensors
- Metabolic Engineering/Catalysis
- Combinatorial Methods
- Separations/Membranes
- Materials Processing
- Advanced Materials
- Nanotechnology
- Material Interfaces



# 709 ATP Awards to Date by Technology Area

### Technical Disciplines

| | |
|---|---|
| Advanced Materials/ Chemistry | 21% |
| Biotechnology | 20% |
| Electronics/ Photonics | 25% |
| Info Tech | 23% |
| Manufacturing (Discrete) | 11% |

*As a Percent of $2,114 M Awarded*

### Total Investment

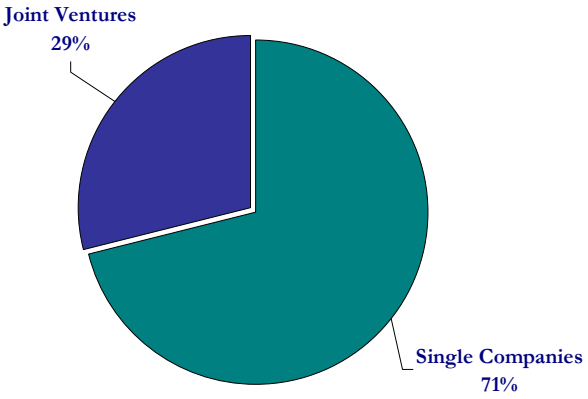
| | |
|---|---|
| Advanced Materials/ Chemistry | $447 M |
| Biotechnology | $420 M |
| Electronics/ Photonics | $519 M |
| Info Tech | $484 M |
| Manufacturing (Discrete) | $244 M |

Forty Three Competitions (1990 – September 2003)

# Participation in ATP …

## 709 ATP Awards

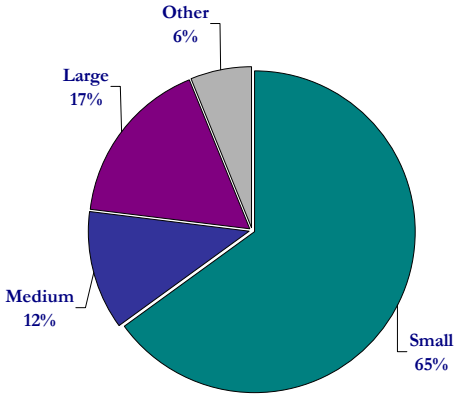
(Forty Three Competitions (1990 – September 2003)





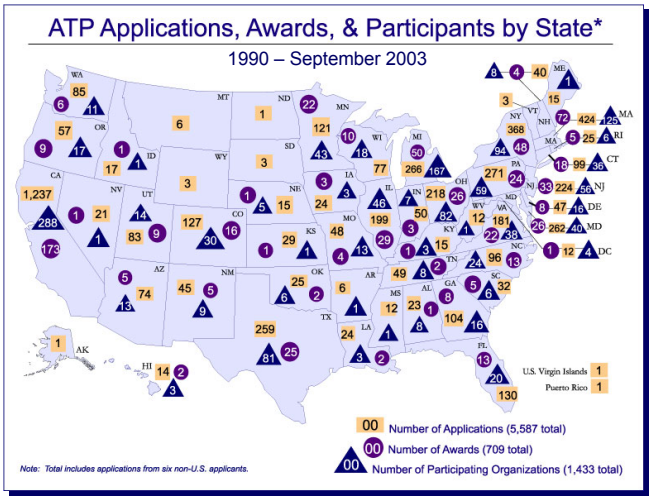

# Distribution of Company Size Lead Companies

## 709 ATP Awards




(Forty Three Competitions (1990 – September 2003)

# Participation in the ATP …




* Geographic location is not a consideration in project selection. The ATP has an active outreach program that seeks to increase awareness across the entire nation of the program's opportunities for small, medium, and large businesses and other organizations. To date, ATP has received applications from organizations based in every state, and has provided funding to participating organizations located in 40 states, and the District of Columbia.

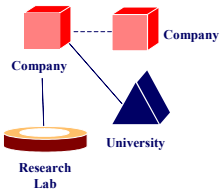


# Two Ways to Apply …

## As a Single Company:

*Alone*

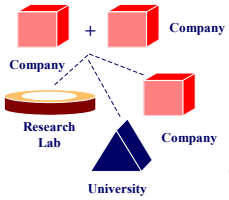

*With Subcontractors*



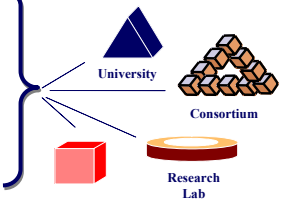

- For-profit company
- 3-year time limit
- $2M award cap
- Company pays indirect costs
- Large companies cost share at least 60% of total project cost

## As a Joint Venture:

*Formal Alliances*




*With Subcontractors*




- At least 2 for-profit companies
- 5-year time limit
- No limit on award amount (other than availability of funds)
- Industry share >50% total cost

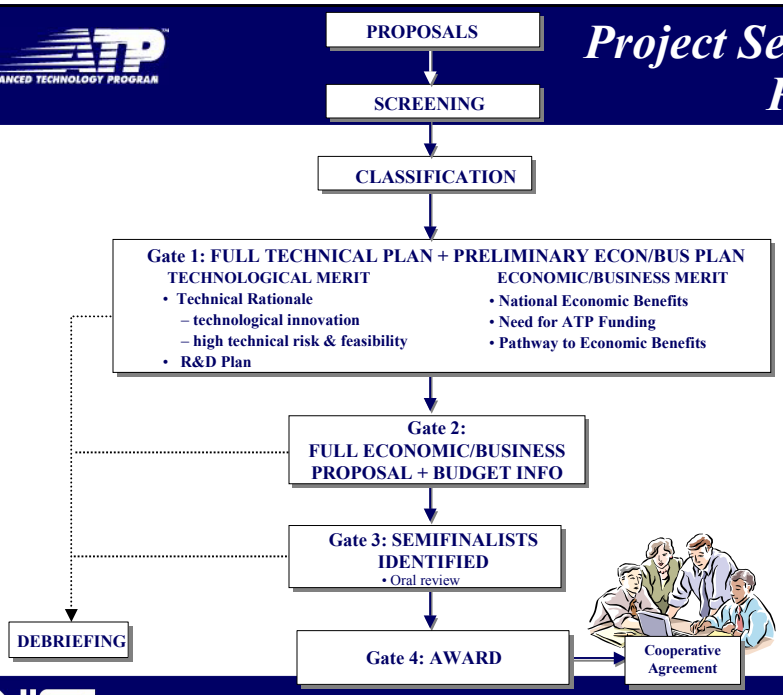
- *ATP encourages teaming arrangements*
- *Most projects involve alliances*

# Two Major Criteria

- Scientific and Technological Merit ***(50%)***
  - Technical Rationale
    - ✓high technical risk & feasibility
    - ✓technological innovation
  - R&D Plan
- Potential for Broad-Based Economic Benefits ***(50%)***
  - National Economic Benefits
  - Need for ATP Funding
  - Pathway to Economic Benefits



# Project Selection Process




National Institute of Standards and Technology • Technology Administration • U.S. Department of Commerce


# *For Info on ATP and to Join Our Mailing List . . .*

| | |
|---|---|
| • Call toll-free: | 800-ATP-FUND<br>(800-287-3863) |
| • Fax your name and address to: | 301-926-9524 |
| • Send e-mail to: | *atp@nist.gov* |
| • Visit ATP's website: | ***www.atp.nist.gov*** |