



Program Motto

*Research is the transformation
of money into knowledge-----
Innovation is the
transformation of knowledge
into MONEY*



I/U Requirements

Industry views

- Make academic research more relevant
- Curricula changes for relevance
- Universities should educate
- Recognize the time differences



I/U Requirements

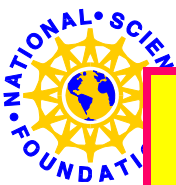
University views

- Cooperation thru exchange
- Encourage not force efforts
- Intellectual Property Agreements
- Educate on unique environment



GRANT OPPORTUNITIES FOR ACADEMIC LIAISON WITH INDUSTRY (GOALI)





Grant Opportunities for Academic Liaison with Industry (GOALI)

The Mechanisms

- Faculty and Students in industry
- Industry Scientists and Engineers in Academe
- Industry-University Collaborative Research Projects





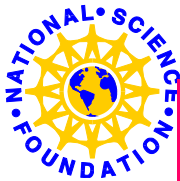
GOALI: Faculty and Students in Industry

- Industry-University collaboration required for research and education aspects of the proposal
- Required matching funds from industry for residence period in industry
- NSF \$ support university participation
- Opportunities for future employment of students



GOALI: Industry Personnel in Academe

- Industrial scientists/engineers visit academe for up to 12 months to catalyze research/curricula
- Industry based Graduate Assistantships to continue graduate studies
- Required matching funds from industry
- Research/ educational objectives and plan for interaction on campus required



GOALI:

Collaborative Research Projects

- Industry co-PI; must present a real industry commitment
- Detailed plan for industry-university collaboration, w/division of research tasks
- Industry cost-sharing and technological relevance are essential evaluation criteria
- Proprietary issues - agreement on intellectual property is required



Selected Engineering Awards

Firm	2001 #Awards	\$ (M)	2002 #Awards	\$ (M)	2003 #Awards	\$ (M)
Ford	6	\$1.1	1	\$0.33	4	\$0.9
Motorola	2	\$1.2	3	\$0.64	2	\$0.3
Xerox			1	\$0.23	2	\$1.5



Before Preparing GOALI Proposal Answer the Following:

- What is impact/relevance if research is successful?
- Who will be industrial Co-PI?
- Has industry committed time/effort of Co-PI?
- How much time and money is required for effort?
- What resources has industry committed to effort?
- What about intellectual property?



NOW CONTACT THE PROGRAM OFFICER



How to Get GOALI Information

- Go to www.nsf.gov.....NSF Home Page
- Click on Engineering
- Click on GOALI..... NSF 98-142
- Click on HTML.....Get GOALI text

Questions call Don Senich

(703) 292-7082



SMALL BUSINESS INNOVATION RESEARCH

SBIR PROGRAM



Federal SBIR Program

THREE Phase Program

Phase 1 Feasibility Study

GENERALLY 6 months and \$100K

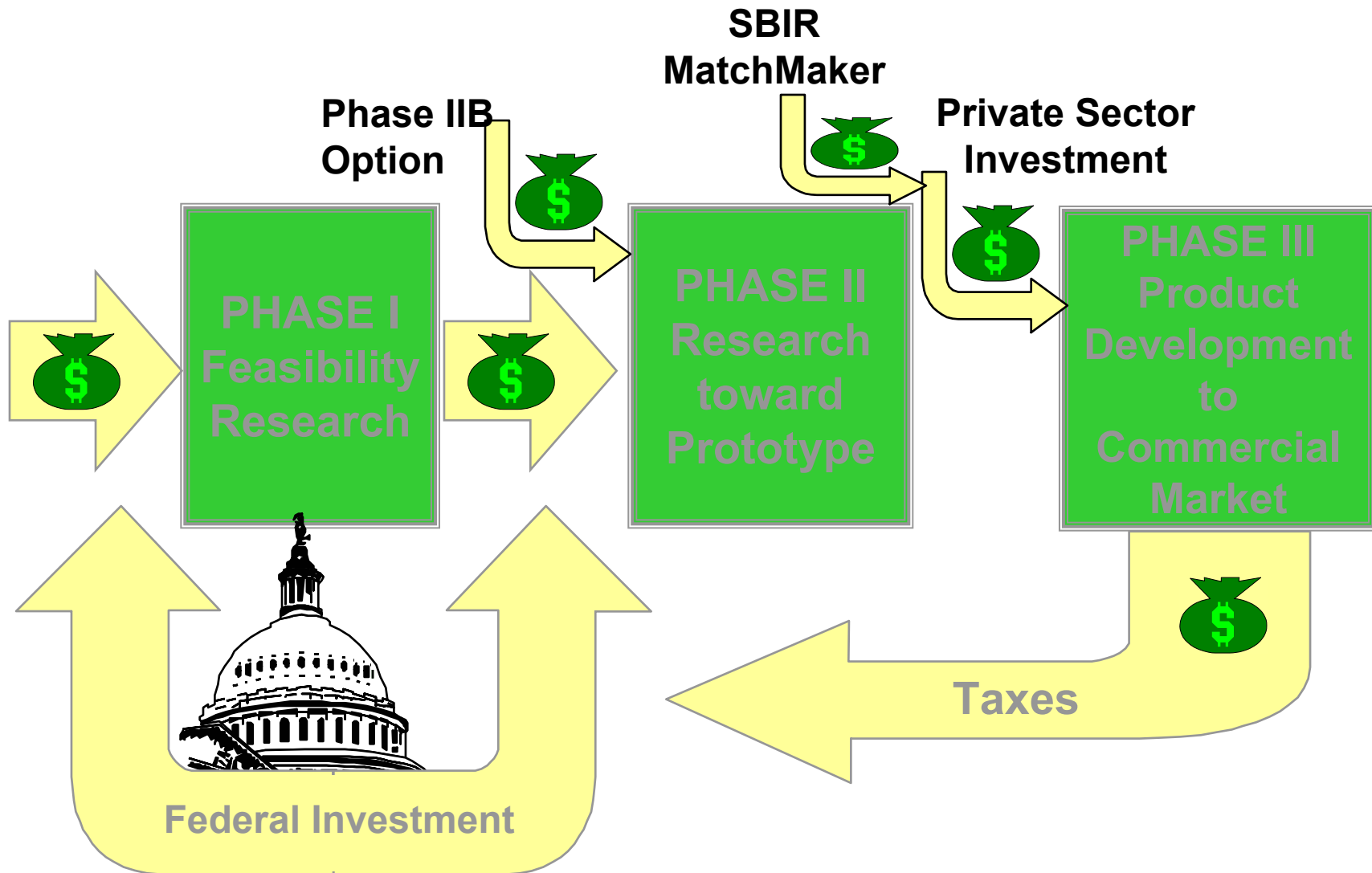
Phase 2 Proof-of-Principle – Prototype Dev.

GENERALLY 2 Years and \$750K

Phase 3 Products, Production, Services,
R/R&D or any combination



SBIR "Innovation" Model





Federal SBIR Program

12 Federal Agencies

Housing and Urban Development FY04

Homeland Security FY04

Approx \$2 Billion



Federal SBIR Program

SBIR Participation

Small Business (500 people or less) must be:

Located in the United States

All work performed in the US

51% owned and controlled by US

Citizens or Permanent Resident Aliens

Organized for Profit



Federal SBIR Program

SBIR Phase I statistics 😊

69.1% of Phase I winners went to
companies with 20 people or less

41% of Phase I winners went to
companies with 10 people or less



Federal SBIR Program

DATA RIGHTS

The Small Business retains ALL rights to DATA

SBIR Technical Data Rights apply to ALL SBIR

Awards: Phase I, Phase II and Phase III

These Data Rights are Non-Negotiable



Small Business Incentives

- Financing at the idea level
- Gaining technical credibility
- Almost unlimited list of opportunities
- 100 percent of high risk research
- Common proposal format



Government Incentives

- Innovative ideas from small firms
- Mechanism for technology deployment
- Small risk at Phase I Level
- Efforts focus on high priorities
- Encourages commercialization



2004 SBIR/STTR Budget ~\$101 M

- Projected Awards for 2004
 - Phase I ~300 (10% Success Rate)
 - Phase II ~120 (40% Success Rate)
 - Phase IIB ? (2003: 30 awards out of 32 submissions; Nov 1: 15 submissions, 7 “Super Size”)



Phase I Topic Deadlines

January 20, 2004

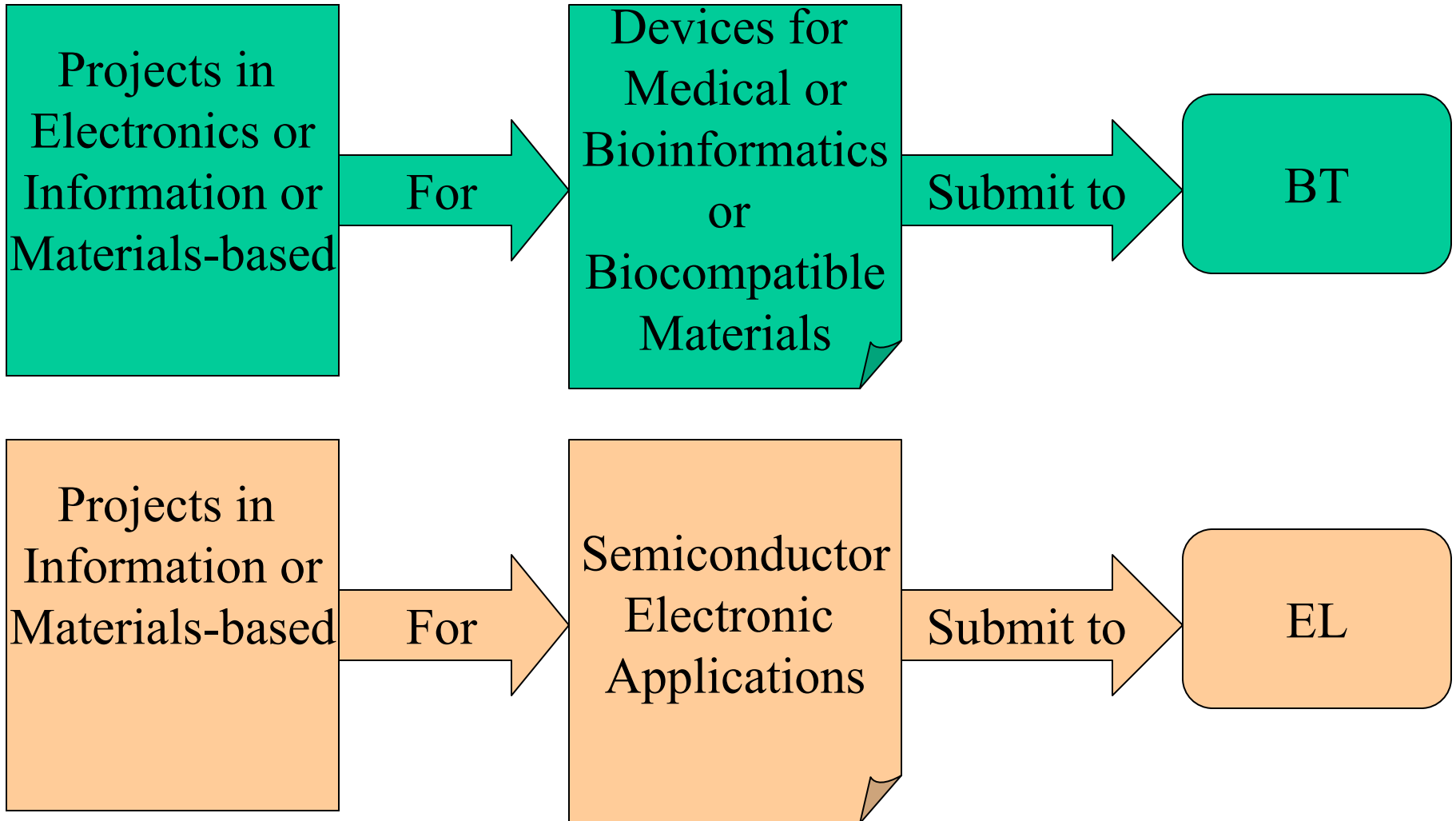
- Biotechnology (BT) and Advanced Materials, Manufacturing, and Chemical Processes (AM)

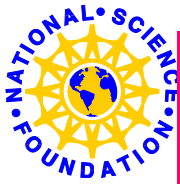
June 9, 2004

- Topics to be announced by March 1, 2004 (check the web page)

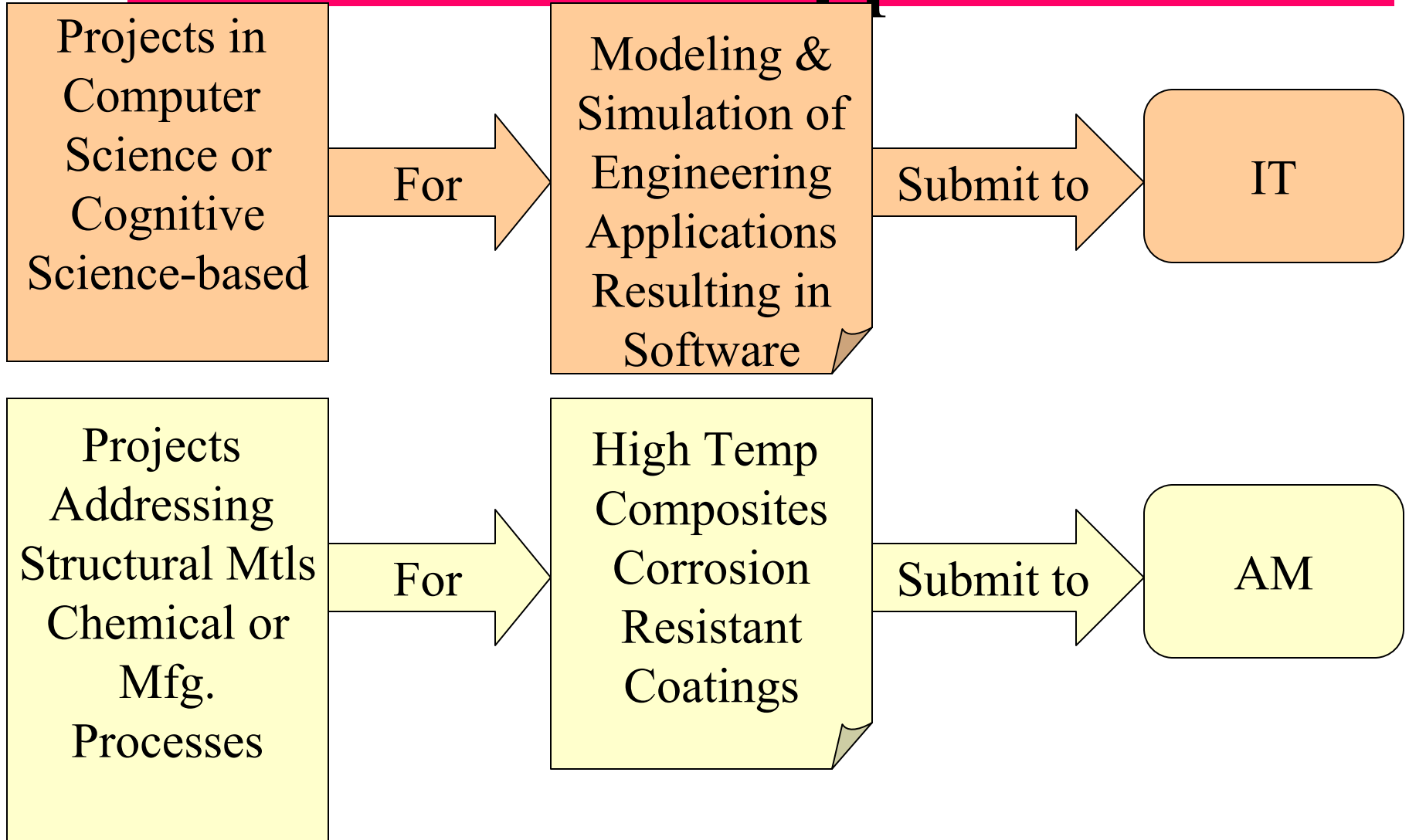


Who is the End-User? What is the Application?





Who is the End-User? What is the Application?





SMALL BUSINESS TECHNOLOGY TRANSFER

STTR PROGRAM



Changes in the STTR Budget

- **STTR Budget was increased from 0.15% to 0.30% for FY04**
- **STTR Phase II Awards Maximum increased to \$750,000 (NSF Phase II maximum remains at \$500,000)**
- **Now eligible for Phase IIB**



Small Business Technology Transfer (STTR) Program

- PL 102-564 Signed October 28, 1992:
Established STTR
- Reauthorized to **FY2009**
- **.30% of Extramural 2004-2009**
- Cooperative R&D
- Small Business and a University, FFRDC or
Non-Profit



STTR Program

- Mandatory partnership between a small business and a research institution (min. **40%** small business, min. **30%** research institution)
- Five federal agencies participate (DoD, NIH, NASA, DOE, NSF). FY2004 funding - \$200M
- Must have written agreement allocating intellectual property rights.



STTR vs. SBIR

STTR

SBIR

Phase Is

Generally 1 year

Generally 6/8 months

SB has to perform SB has to perform

40% of the research 70% of the research

MUST Collaborate Collaboration NOT required

Phase II \$750K

Phase II \$750K



Questions!!!