



An Overview of the Small Business Innovation Research Plan in the USA

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EPIC : Mission

***EPIC*: owned and operated by its industry members**

**Promote Sustainable Growth for its
Industry Members, many of whom are
SMEs**

Consolidated European Photonics Research Initiative
Photonics for the 21st Century



The Big Bang for European Photonics

- Results
 - Recognition as a Strategic Technology
 - Photonics is now a Unit in DG-IST
 - Programmes to Strengthen Competitive Position
 - Support for Manufacturing Infrastructures
- Significant change is possible, and EPIC is a leader of this change
- What could we accomplish next?

R+D+I Support for Small Businesses

Background on the US model:
Small Business Innovation Research (SBIR)

SBIR Overview

- For businesses with 500 or fewer employees
- Involves the 11 United States Federal Agencies with major extramural research programmes (\$2 Billion total SBIR annual budget)
- Each agency has its own program
- SBIR (individual business)
- STTR (business plus university)

- In some cases (NSF) the topics are proposed by the grant seekers
- In other cases, the SBIR is used as a procurement tool

<http://www.sbir.gov>

Small Business Innovation Research: basic parameters

Purpose: Allow small firms to undertake cutting-edge, high risk, high quality scientific, engineering, or science and engineering education research with a high potential economic payoff if the research is successful.

Phase 1. Grant application (10 pages) success rate is 15%, but time investment is low

Grants

SBIR – Small Business -- \$100,000 for 6 Months: an outright grant

STTR – Small Business + University Researcher(s) -- \$150,000 for 12 Months (outright grant)

SBIR : basic parameters

Phase I Award Explore Feasibility of Scientific or Technical Innovation (and assess commercial feasibility)

Result: A technical report that summarizes the experimental and theoretical accomplishments of the research proposed. This report serves as the basis for a Phase II proposal

Phase II proposal is much more detailed, but success rate is higher (1 in 3) because of the pre-selection effect

Expectation of product launch during Phase II

Phase II award

\$200k to \$700k (NSF matches \$1 for every \$2 spent by company)

Duration up to 3 years

IPR

- Intellectual Property Rights remain with the company.
- In the case of an University partnership, the university will usually retain IPR rights on its contributions.
- This is a key point that is highly appreciated by SMEs

Advantages of program

- Small company focuses on its particular priorities
- Small company does not have to share or disclose IP to other partners
- Small company receives outright grants with no « strings attached » or other conditions.
- The initial grant covers 100% financing of project.
- Small company can use the SBIR grant to leverage funding from bank, venture capital, and other sources of finance.
- Co-financing by small company occurs at later stages of the program as a result of earlier successes.

Disadvantages of the Program

- Small company must adhere to generally accepted accounting principals and produce annual accounts showing
 - How the money was spent
 - Co-financing where appropriate
- Success rate for initial grant application at NSF is only 15%- 20%
- Total funding is limited
- Grant applications take time for processing (6 months) and window of opportunity may have passed

Program Track Record

- NSF makes ~ 125 SBIR and 25 STTR awards annually
- Annual funding tied to Research Budget (~ \$16.25 million for FY 2008)

What's missing?

- Similar to European programs, except that the 1st grant is 100%, and subsequent grants are cost-shared
- Still requires an application and peer-review, but the review itself has a financial value
- Aim is to get ideas turned into products.
- Often research is done at a university who has the tools
- Comparison to loan, a European project, or a tax credit

Comparison of innovation funding instruments

	IPR Ownership	Time Bureacracy	SME Priorities	Effectiveness as SME development	Market distortion	Lever for funding
SBIR Direct Grant	plus	minus	plus	plus	neutral	plus
Loan	plus	minus	plus	neutral	plus	plus
Tax Credit	plus	plus	plus	plus	neutral	neutral
European Project	minus	minus	minus	minus	neutral	minus