

New Mexico State University

ARROWHEAD CENTER

LEADING ECONOMIC DEVELOPMENT FOR NEW MEXICO STATE UNIVERSITY



National Security Technology Incubator Evaluation Process

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Live, Learn and Thrive

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National Security Technology Incubator Evaluation Process

1.0 INTRODUCTION

This report describes the process by which the National Security Technology Incubator (NSTI) will be evaluated. The technology incubator is being developed as part of the National Security Preparedness Project (NSPP), funded by a Department of Energy (DOE)/National Nuclear Security Administration (NNSA) grant. This report includes a brief description of the components, steps, and measures of the proposed evaluation process. Design of an evaluation process to assess the effectiveness of the NSTI is a deliverable due by December 31, 2007, as performance measure 1.5.1 of Grant No: DE-FG52-07NA28084 (reference: Arrowhead Center proposal, Page16).

The purpose of the NSPP is to promote national security technologies through business incubation, technology demonstration and validation, and workforce development. The NSTI will focus on serving businesses with national security technology applications by nurturing them through critical stages of early development. An effective evaluation process of the NSTI is an important step as it can provide qualitative and quantitative information on incubator performance over a given period. According to the European Commission's Final Report on Benchmarking of Business Incubators (2002), "the performance of business incubators should be judged primarily in terms of the results achieved, i.e., the impact they have on businesses, wider economic development, and other priorities."

The vision of the NSTI is to be a successful incubator of technologies and private enterprise that assist the NNSA in meeting new challenges in national safety and security. The mission of the NSTI is to identify, incubate, and accelerate technologies with national security applications at various stages of development by providing hands-on mentoring and business assistance to small businesses and start-up companies.

To achieve success for both incubator businesses and the NSTI program, an evaluation process is essential to effectively measure results and implement corrective processes in the incubation design if needed. The evaluation process design will collect and analyze qualitative and quantitative data through a performance evaluation system.

2.0 EVALUATION PROCESS

The evaluation process for the NSTI program will include assessment of the following components:

- Success of incubator businesses;
- Sustainability of the NSTI;
- Services and facilities used by clients; and
- Management processes.

The steps required to evaluate and assess the NSTI program will be adapted based on proven models already established by the infoDev Incubator Support Center and will include the following:¹

- a) Develop goals, performance objectives, and performance measures;
- b) Define performance objectives that relate to benefits expected by resource network partners;

¹ Incubator performance evaluation, Article 214 retrieved from <http://www.idisc.net/en/Article.214.html>

- c) Define performance objectives that relate to the needs of the incubator;
- d) Measure performance using a clear data collection method;
- e) Prepare annual reports documenting results;
- f) Provide feedback to the management of the NSTI;
- g) Seek partner/stakeholder input to identify weaknesses and discuss progress; and
- h) Develop and implement an improvement plan for the next evaluation period.

3.0 EVALUATION SURVEY

The implementation of an incubator performance evaluation system is expected to increase NSTI effectiveness. A thorough evaluation of the services provided will suggest ways to improve or expand operations, point out strengths and weaknesses, and help implement corrective procedures to achieve success. The evaluation is part of the NTSTI feedback process.

In evaluating the NSTI programs strengths and weaknesses, the design will include an evaluation survey of incubation services, management practices, the management team, and tenant selection criteria. This survey will rate the services offered on a scale of 0 to 5 accordingly: 0 =Not Used or Unknown; 1=Needs Improvement; 2=Average; 3=Good; 4=Very Good; 5=Excellent. The services and practices evaluated will consist of items identified in Sections 3.1 and 3.2.

The evaluation survey will be administered to all NSTI clients (those companies currently in the incubation program and those companies who have graduated), resource network partners, and the staff of the NSTI. Results will be documented and shared among all those surveyed.

3.1 Services

Business assistance services such as the following will be rated as part of the NSTI evaluation process:

- a) Provides coaching on business skills and business model development;
- b) Provides assistance in developing business and marketing plans;
- c) Provides proposal development support;
- d) Facilitates business support services from external providers;
- e) Provides workshops on entrepreneurship and business development;
- f) Provides market research and product marketing assistance;
- g) Provides introductions to potential security technology customers;
- h) Provides an opportunity to qualify for technology demonstration funding;
- i) Facilitates access to New Mexico State University resources, such as engineering consultation;
- j) Provides opportunities for networking with other incubator clients; and
- k) Provides introductions to venture capitalists and private funding sources.

In addition, features of the incubator facility will be evaluated, including:

- a) Offices;
- b) Office Equipment;
- c) Telecommunications;
- d) Laboratory/prototyping/testing equipment;
- e) Conference and meeting Rooms; and
- f) Reception area.

3.2 Management Practices

The management practices of the NSTI will be evaluated in terms of its mission and operations, governance and finances, management team, and tenant selection, monitoring, and graduation policies. Several aspects of these management practices that will be evaluated are listed in the following paragraphs.

Mission and Operations

- a) Has a clearly identified mission and program goals;
- b) Has developed a strategic plan with quantifiable objectives to achieve its mission;
- c) Has a business plan to guide and monitor growth;
- d) Maintains effective strategic alliances and collaborations with service area providers; and
- e) Reviews its finances with the Arrowhead Center Board of Directors annually.

Governance and Finances

- a) Has financing capable of ensuring continued operations and effectiveness;
- b) Has a board of directors supporting the mission of the NSTI; and
- c) Has an organizational structure that contributes to effective program operations and client services.

Management Team

- a) Has management that is informed of industry best practices;
- b) Sets staff salaries at appropriate level to attract and retain experienced employees;
- c) Is adequately staffed to meet the needs of NSTI clients and provides efficient service;
- d) Has written job descriptions for staff and evaluates staff annually through performance reviews; and
- e) Strongly supports professional development of staff.

Tenant Selection, Monitoring and Graduation Procedures

- a) Has well defined tenant selection criteria and selects only those applicants that meet the criteria;
- b) Regularly collects information on client performance results;
- c) Effectively utilizes effective business management tools in tracking client progress; and
- d) Has a formal benchmark-based graduation policy.

3.3 Outcomes

In addition to the evaluation criteria described above, several outcomes will be measured to provide information on the effectiveness of the NSTI. These outcomes include the graduation rate of incubator companies, the growth of client companies after graduation, number of jobs and revenue generated in the region by graduated companies, number of security technologies successfully marketed and employed, and the long-term financial sustainability of the incubator.