

# **Brain Barns**

An Exercise in

# **PROGRAM PLANNING AND PROPOSAL WRITING**

Prepared By:  
**Bare Open System Institute**

**1 February 2015**

**Version 0.1**

## Brain Barn Grant Proposal

### Revision Log

Date	Author	Rev#	Change	Action
2014/12/10	Flint	1	Original submission of draft document	Track Changes on

## Brain Barn Grant Proposal

1 INTRODUCTION.....	4
2 SUMMARY.....	4
2.1 Cost.....	4
2.2 Benefit.....	5
3 INTRODUCTION.....	5
3.1 Description:.....	5
3.2 Objectives.....	6
3.3 Potential Partners:.....	6
3.3.1 Private Participants.....	6
3.3.2 State Government.....	6
3.3.3 Federal Government.....	6
3.4 Services Provided.....	7
3.5 Facilities.....	7
4 Introduction to Applicant Agency.....	7
4.1 Organization Propose.....	8
4.2 Locations And Service Areas.....	8
4.3 Who Benefits, How Many Per Year.....	8
4.4 Staff Volunteers – Board Of Directors.....	8
4.5 Collaboration – Partnership.....	9
4.6 Organizational Infrastructure.....	9
4.7 Funding Sources.....	9
5 Discussion of Problem or Need.....	9
6 Methods.....	9
6.1 Overview.....	9
6.2 Target Populations.....	9
6.3 Full Description of Actives.....	10
6.4 Implementation Time-Line.....	10
6.5 Collaboration.....	10
6.6 Staffing.....	10
6.7 Facilities & Equipment.....	10
7 Evaluation Plans.....	11
9 Future and Other Necessary Funding.....	11
Budget.....	11
9.1 Executive Summary.....	11
9.2 Personnel.....	11
9.3 Non personnel.....	12
9.4 Indirect.....	12

# Brain Barn Grant Proposal

## 1 INTRODUCTION

## 2 SUMMARY

The Vermont Brain Barns is a non-profit organization dedicated to the creation of intellectual environments that foster Science Technology Engineering Arts and Math (STEAM) initiatives. The participants of the Brain Barns are local school systems, companies, students, apprentices and individuals in Vermont technology sector that are aware that we need to grow our economic base and workforce viability rapidly, and are seeking to expand their community connections. In each of the proposed ten regional shared “maker” type environments new or existing small business or established companies can with the help of the public-private partnership that the Brain Barn represents create opportunities for internship, marketing, sales, research and development.

The “maker” movement came to Chittendon County Vermont in 2012 and is currently flourishing there as the Generator organization in Burlington City. This is a manifestation of a world-wide movement based upon the work of the Massachusetts Institute of Technology (MIT) scholar, Dr. Neil A. Gershenfeld an American professor at MIT and the director of MIT's Center for Bits and Atoms, a sister lab to the MIT Media Lab, who realized that the next industrial revolution would come from decentralized yet highly connected manufacturing systems. Dr Gershenfeld’s original maker facilities generally are facilities equipped with an array of flexible computer controlled tools that cover several different length scales and various materials, with the aim to make “almost anything”, this includes technology-enabled products generally perceived as limited to mass production<sup>1</sup>. From this beginning the number of “maker spaces” facilities available for small smart production have bloomed<sup>2</sup>.

The Barre Open Systems Institute (BOSI), The Renyolds Corporation, Generator, SeaLANData and ?? intend a public private partnership to establish high technology research and manufacturing facilities in order to enhance the economic well being of the Citizens of Vermont.

### 2.1 Cost

The summary costs for this project are included here:

- \$475,000 for establishing first Brain Barn location in Barre
  - o \$150,000 Full time coordinator position (\$75,000/year for 2 years)

---

<sup>1</sup> Gershenfeld, Neil A. (2005). Fab: the coming revolution on your desktop—from personal computers to personal fabrication. New York: Basic Books.

<sup>2</sup> Hackerspaces: An economic development wheel in a wheel (<https://gigaom.com/2014/11/30/sacramentos-hacker-lab-calls-atts-gigabit-bluff/>)

## Brain Barn Grant Proposal

- o \$150,000 for promotion and supporting development.
- o \$175,000 for rent and asset purchase

We expect that all of the regional sites to have this level of startup and initial operating costs. The third year will either involve a profit or possibly additional grant funding in some cases.

### 2.2 Benefit

Benefit it is all about employment. Through these statewide micro-enterprise facilities employment-oriented organizations shall develop. These partnering efforts will allow for a broader scope of technology enterprise offerings to be created in each Brain Barn. This is the problem that the Brain Barn project intends to address Statewide.

## 3 INTRODUCTION

As we are including the Generator in Burlington the proposal is for the following Vermont Municipalities to gain maker spaces using the Generator model:

Geographic Location	Proposed Space
Barre	Old Labor Hall Basement
Bennington	Main Street Bennington High School
Brattleboro	??
Burlington	Generator
Morrisville - Johnson	??
Newport – Derby Line	Butterfield – Tivoli
Rutland	??
St Albans	??
St Johnsbury	The Foundry
Springfield	??

### 3.1 Description:

- The Brain Barns create and establish a series of “campuses” where educational, research, development, technology and software companies choose to locate.
- These facilities incubate and provide tenant small businesses and companies with benefits such as:
  - o Shared resources, e.g. conference room, high speed internet, tech support, administrative services, business advice and marketing services, etc.
  - o Proximity to other tech companies both physically and virtually.
  - o Built in networking of both the people and digital variety
  - o Reduced business facilities and infrastructure cost.
  - o Support growing businesses and their recruiting goals via high profile work venues.

## Brain Barn Grant Proposal

- Give an entry point to owners adjacent commercial office facilities with focused marketing opportunities.
- Make Vermont technology companies more visible both within the state and outside the state.

### 3.2 Objectives

The immediate objectives are to:

- Create the first Brain Barn facility, proving the sustainability of the model over the first 2 years.
- Attract 5 or more companies to locate in the first Brain Barn over the same period.
- Identify locations of future facilities throughout the state based on demand and available resources

### 3.3 Potential Partners:

As the nature of this proposal revolves around local economic empowerment, potential and immediate partnerships are listed here with the most local being the first in consideration with State and Federal consideration as later partners.

#### 3.3.1 Private Participants

- Building owners and/or developers.
- Business support service providers and consultants.
- Startup and established software and technology companies.
- 2014 Northeast Kingdom Fund Grants
- Generator, Burlington Vermont
- Reynolds Corporation, Barre Vermont
- Existing facility owners

#### 3.3.2 State Government

- Vermont Department of Economic Development
- Vermont Department of Education
- Vermont Department of Economic Development
- Vermont Agency of Commerce

#### 3.3.3 Federal Government

- Defense Advance Research Projects Agency
- Homeland Security
- Department of Labor
- Department of Education

## Brain Barn Grant Proposal

### 3.4 Services Provided

The Vermont Brain Barns will offer the following consulting services:

**Needs Analysis:** Determine what technology gaps exist in decision making process, recommend changes.

**Coaching:** Guide the owner through various scenarios, help them purchase tools and technology, build on technological synergies with client's customers, push owner to test the limits of their technological capabilities and potential.

**Staff Development:** Educational and Business Consulting, business organization, hardware and software skills development. Business development tax advice, and other general businesses development services.

**Office Space Procurement - Renovation:** Assist in placement of participating companies within a regional Brain Barn and match for projected growth needs.

**Sales Support:** Provide sales support staff on the areas of sales, marketing, and lead generation for new business opportunity.

### 3.5 Facilities

The Brain Barns while differing in actual size and configuration will have as common characteristics the following:

- Gersensfield style Fab Lab facilities
- Office and organizational space
- Storage and inventory Space
- Shipping Facilities
- Internet and Telecommunications capability

## 4 Introduction to Applicant Agency

As a potential partner or participant in the Brain Barn plan, you are being asked to fund and expand an existing model. Vermont is all about two vastly different survival models, one is the “Country Club” model, and generates a very rosy perception of this state as a paradise, while the other is a “Life Boat” model which for the majority of the residents of this State is far closer to the truth. Postindustrial Vermont is a place of vast economic inequality the rural countryside of Vermont might be considered part of the “Second World” – not quite in the economic inequity of the “Third World” but no where near the prosperity of the “First World”, which is what we consider the norm in this country.

## Brain Barn Grant Proposal

### 4.1 Organization Propose

The association of these existing or soon to go online maker spaces when augmented

### 4.2 Locations And Service Areas

In an effort to follow existing state protocols for the distribution of the Brain Barn facilities, our initial proposal would be to locate Brain Barn facilities in underutilized educational spaces. Possible locations include:

VDOL Area	Geographic Location	Proposed Geographic Location
00	Montpelier (HQ)	
01	Barre	Old Labor Hall Basement
03	Bennington	Main Street Bennington High School
05	Brattleboro	??
06	Burlington	Generator
07	Middlebury	
09	Morrisville	??
10	Newport – Derby Line	Butterfield – Tivoli
11	Rutland	??
12	St Albans	??
13	St Johnsbury	The Foundry
14	Springfield	??
15	White River Junction	

**Figure 1 Notional Brain Barn Locations**

Note that our initial configuration is for ten facilities.

### 4.3 Who Benefits, How Many Per Year

### 4.4 Staff Volunteers – Board Of Directors

Each node of the Brain Barn system shall have local direction and guidance.

The following Table Lists the Board of Directors for the Barre Brain Barn.

Name	Title	Phone	Email
Paul Flint	Director	802 595 9365	<a href="mailto:flint@flint.com">flint@flint.com</a>
	Chairman		
	Treasurer		
	Secretary		

**Table 1 Barre Brain Barn Board of Directors**

The following Table Lists the Board of Directors for the ?? Brain Barn.

Name	Title	Phone	Email
	Director		



## Brain Barn Grant Proposal

	Chairman		
	Treasurer		
	Secretary		

**Table 2 Barre Brain Barn Board of Directors**

### 4.5 Collaboration – Partnership

### 4.6 Organizational Infrastructure

ADA compliance

### 4.7 Funding Sources

Narrow the focus down...and transition to the problem or need.

## 5 Discussion of Problem or Need

Value added?

## 6 Methods

### 6.1 Overview

The Brain Barn system is designed to benefit two different groups, these are:

1. Participants
2. Customers

The Participants are the unemployed or underemployed individuals who need core technical education, training and apprenticeship activities.

The Customers are the entrepreneurs and small business owners who need the knowledge and skills of the participants along with the aptitude necessary to operate and manage an enterprise.

### 6.2 Target Populations

The target populations either live and own a small business located in Vermont, and may have been in business for one or more years or are unemployed or underemployed program participant in a poverty situation.

The business customers are chosen according to their need for growth with specific focus on the technical needs within the required space, and their inability to reach higher levels of productivity through technological innovation of both processes and methods. These customers may operate companies that produce software applications, or technology

## Brain Barn Grant Proposal

related services and products. The development of the participants is as much part of the product as the actual successful outcome of the customer's entrepreneurial activity.

What matters are both the customer and the participant's experience we are trying to educate and develop both of these groups and the development of the businesses customer and the participants are the elements that we are interested in fixing.

It is our goal that both the customers and the participants shall reside within an SBA qualified empowerment zone. This will hold us to the parameters we believe shall stipulated by the grant authorization office, and ensure that we are serving those most in need of business education, training and advice. It will also give us the opportunity to build ties in communities in which commerce growth could be substantial.

### 6.3 Full Description of Actives

### 6.4 Implementation Time-Line

The following is the representative time line for the Barre Brain Barn.

Additional milestones and time lines will be necessary for the other participating sites.

Milestones					
Milestone	Start Date	End Date	Budget	Manager	Department
Creation of Vermont Brain Barns Inc.	5/7/2015	8/5/2015	\$0	VBB Committee	Admin
First Brain Barn Location secured	5/7/2015	8/5/2015	\$0	Paul Flint	Admin
First VBB Company moves in	5/7/2015	8/5/2015	\$0	Property Mgr.	Admin
Totals			\$0		

**Table 3 Barre Brain Barn Time Implementation Time-Line**

### 6.5 Collaboration

### 6.6 Staffing

See Section 9.2

### 6.7 Facilities & Equipment

See Section 9.3

## Brain Barn Grant Proposal

### 7 Evaluation Plans

Process Objective kept within the method section.

An outcome objective details the result of the method.

Program reports

8

### 9 Future and Other Necessary Funding

Budget

Direct

#### 9.1 Executive Summary

**Procurement Sourcing:** Establish long-term channels and determine technology suppliers. Manage sourcing and recommend upgrades on a quarterly basis.

Direct	Year 1	Year 2	Total
<b>Personnel</b>			
Full Time Coordinator	75,000	75,000	150,000
Promotion	30,000	10,000	40,000
Support	25,000	25,000	50,000
Development	25,000	35,000	60,000
Total (includes G&A)			300,000

**Table 4 Barre Facility Direct Personnel Expenses**

Non Personnel	Year 1	Year 2	Total
Direct			
Fab Lab	50,000	10,000	60,000
Welding Lab	12,000	4,000	16,000
Electronic Lab	22,000	2,000	24,000
HVAC Lab	19,000	2,000	21,000
Lease Hold Improvements	45,000	1,000	46,000
	GRAND	TOTAL	475,000

**Table 5 Barre Facility Non Personnel Expenses**

#### 9.2 Personnel

An FTE with the position of coordinating Director in enhanced with Promotion Support and Development personnel assets for the two year operational cycle of the facility

Their Qualifications are as follows:

- Full Time Coordinator
- Promotion
- Support
- Development

## Brain Barn Grant Proposal

### 9.3 Non personnel

The following are the facilities necessary to open these facilities and to allow for the customer and participant use of the Brain Barn:

- Fabrication Lab
- Welding Lab
- Electronic Lab
- HVAC Lab
- Lease Hold Improvements

### 9.4 Indirect

Indirect expenses include:

## 4.0 Strategy and Implementation Summary

The Vermont Brain Barns strategic focus is centered on helping small rural businesses find specialized funding and helping them use that funding to enhance their business through the use of trained technologists. If the company will not benefit from VBB services, as per the evaluation, VBB will not offer its services to those clients.

### 4.1 Competitive Edge

The Vermont Brain Barns' competitive edge is in its ability to leverage our relationships in the technology community throughout the State of Vermont. Our partnership with the Vermont Technology Alliance (VtTA) has shown us that technology companies are enthusiastic and committed toward the development of the participants and the creation of "Brain Communities" within these Brain Barns.

### 4.2 Marketing Strategy

The associated regional Vermont Brain Barns plan to market their services through strategic partnerships with multiple profit and non-profit organizations that have a focus within the technology sector of Vermont. Websites for the VBB exist and will be enhanced to market to company participants, new hires searching for positions, apprentices searching for internship opportunities, E-mail campaigns and outreach will be ongoing to promote Brain Barn participation.

### 4.3 Fundraising Strategy

Fundraising and revenue will be generated through a combination of Federal grants and local ??(WETF) grants. In addition, clients will be expected to pay for a percentage of the costs involved, depending on their financial status. The USDA through the Federal Partnership Program we plan to have as the largest expected revenue generator. Under this program, The Vermont Brain Barns may qualify for additional Vermont State grants

## Brain Barn Grant Proposal

of up to \$50,000, and a matching Federal Grant of up to \$125,000. In addition, smaller business development grants at the State and Federal level will help continue funding for the organization.

Federal and State grants alone, or even combined with small business client revenue is still not enough to allow the company to achieve its mission. A low cost monthly retainer fee will be required of all rural participants. Depending upon the participant or customer, this fee might range from between \$50-100 monthly with additional revenue being a percentage of sales generated by the VBB affiliate program. In exchange for this low monthly fee, the client will have 100% access to Brain Barn services, and they will often find that the cost savings, and revenue developed through a relationship with The VBB will more than pay for the low monthly retainer. The retainer may go up or down depending on the level of funding achieved each year by VBB.