

# **Strengthening the Entrepreneurial & Innovation Ecosystem in the Western Region of Puerto Rico**

## **A.2 Project Description**

### **Executive Summary**

With the goal of enhancing the regional competitiveness of the Western Region of Puerto Rico, The Puerto Rico Technoeconomic Corridor, Inc. (PRTEC) has developed the program: **Strengthening the Entrepreneurial & Innovation Ecosystem in Western Puerto Rico (SEIEP)**. This is a two year (24 months) project that looks to build on other efforts funded by EDA in the region such as REDIS 2014, a strategic regional plan, The Guanajibo Research & Innovation Park (GRIP) Master Plan, and The Bioprocess Development & Training Center (BDTC), a state of the art research and training facility to support the Biosciences industry in the island. Also this project plans to take advantage of the strategic assets in our region in order to stimulate the global competitiveness of western Puerto Rico. The proposed project will focus in talent development as the next (implementation) phase of the strategic planning process of the region. In other words it would insert action into the ecosystem.

Through workshops, seminars, elevator pitch competitions, networking/matchmaking events, technical assistance and mentoring, and incubation services, the project will support new entrepreneurial activity at public & private university campuses in the region as well as growth and expansions of existing businesses in three regional innovation clusters (medical devices, renewable energy, and aerospace/information technology).

PRTEC and its staff will be in charge of developing, managing and promoting the project and its various activities. This will be accomplished in collaboration with several partners: The PR SBTDC, and PRIMEX (the MEP partner in the island) in conducting workshops for the industry cluster members, The Puerto Rico Research, Science & Technology Trust (S&T Trust), and Puerto Rico Industrial Development Company (PRIDCO) as matching funds partners (both in cash & in kind services), and The Western Region Chamber of Commerce, The Medical Devices Cluster, and the Research & Development Center at UPR, as mentoring partners for the various participants of the project.

PRTEC is requesting a \$348,800 budget from EDA to conduct the activities mentioned above. These includes salaries for PRTEC key project personnel, professional services from both PRTEC and collaborating partners (SBTDC, PRIMEX), incubation space at VITEC2 (PRTEC's technology business incubator) and at BDTC, and for administrative expenses. EDA funds will be match by cash contributions from PRIDCO (\$270,000), The S&T Trust (\$50,000), and in kind contributions from PRTEC (\$30,000). The SEIEP Project complies with all six EDA investment priorities and with the Puerto Rico CEDS.

PRTEC expects to have a measurable impact at the end of the two year project in areas such as: establishment of new university related startups, commercialization of UPRM

Intellectual Property, increase in sales for the regional innovation cluster members, the creation of new jobs, and increase in private investment in the region. PRTEC has the structure, experience and support system to assure continuation of the program after the EDA funding is over.

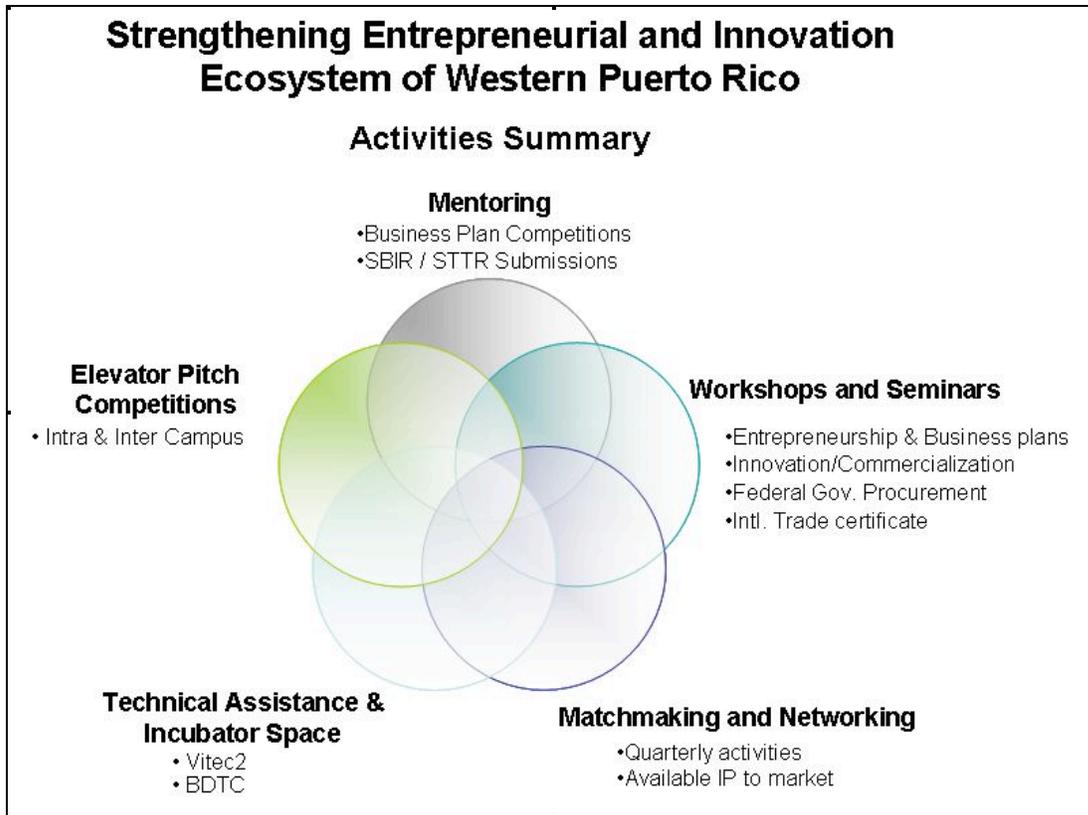
### **Project Concept**

Our biggest asset in the western region is our regional university system anchored by the University of Puerto Rico at Mayaguez, and 8 other private & public campuses. These includes the Ana G. Mendez System (3 campuses), the Inter American University (2 campuses), and the Antillean University, and Catholic University, among them. There are over 20,000 students enrolled, and more than 1,500 faculty in these campuses.

UPRM is the engineering and technology campus of the University of Puerto Rico and has 24 patents out of 36 of the whole UPR System. Commercializing these patents has being a challenge for the University, but the potential is tremendous. A more flexible, private sector approach for commercialization is needed in order to be successful. PRTEC as part of the project proposes a methodology of workshops, SBIRs, matchmaking and business incubation to assist UPRM in this endeavor. Some of the patents are in areas such as: renewable energy, nanotechnology, and physical sciences.

Another important regional asset is its innovation clusters. There are three innovation clusters active in the region: The Medical Devices Cluster, which has being actively working for the past ten years and has more than 30 participating members, and two newly established, the Aerospace/IT Cluster and Renewable Energy Cluster. All of these clusters have been organized and its structure managed by PRTEC as part of its clusters development program. These Clusters represent a great opportunity for business creation, and business expansion than in turn could generate most needed economic activity and jobs for the region.

The Puerto Rico Technoeconomic Corridor (PRTEC) is a regional economic development (501 c3) organization that integrates in its Board of Directors representatives from the private sector, academia, and government in an effort to promote innovation based economic development for the western region of Puerto Rico. PRTEC has developed an innovation ecosystem during the past ten years and has accomplished several important achievements during that time. Collaborating with PRTEC in this project is the Western Region Chamber of Commerce, the PR SBTDC, PRIMEX, Pridco, The PR Science & Technology Trust, The Research & Development Center at UPRM, and various municipal governments from the region, as well as the universities mentioned above.



**Strengthening the Entrepreneurial & Innovation Ecosystem in the Western Region Of Puerto Rico (SEIEP)** project incorporates the following strategic objectives:

**1. Nurturing an Entrepreneurship & Innovation Culture among Universities Communities.**

This objective in turn will be accomplished by the following activities:

- a) Entrepreneurship & Innovation workshops for the universities communities.
- b) Elevator Pitch Competitions for students.
- c) Mentoring program for participating at the State “Enterprize Business Plan” competition.
- d) Networking activities for students, researchers, and entrepreneurs.
- e) Technical assistance & incubation space for new university related startups.

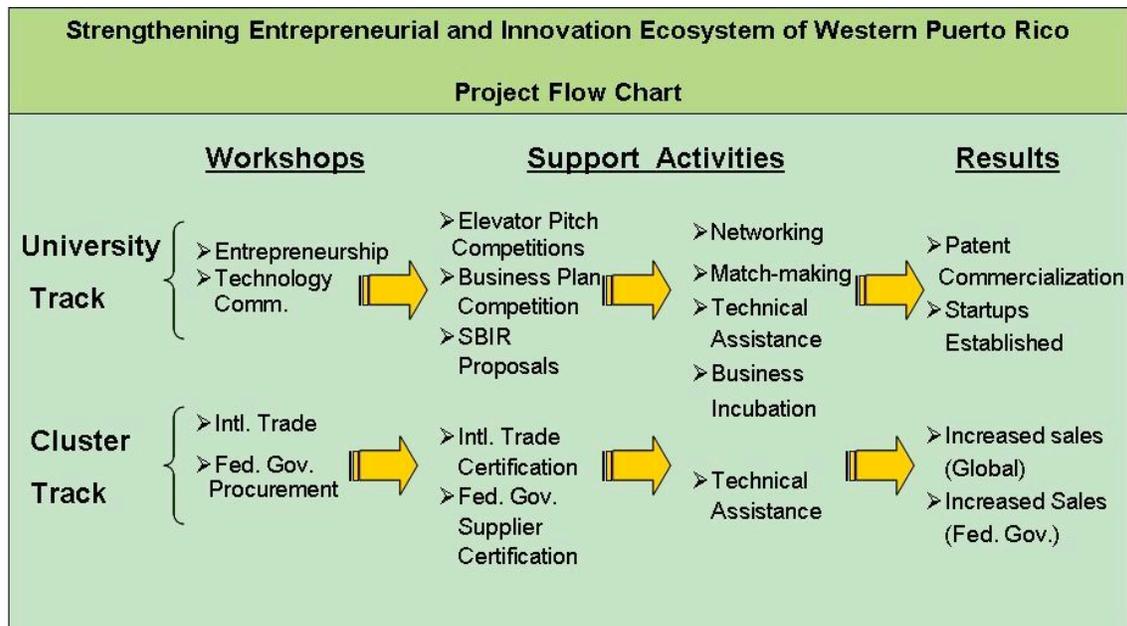
These activities will take place at the various university campuses throughout the western region.

## 2. Encouraging the Commercialization of UPRM Current & Future IP Assets.

For this goal we will organize workshops and act as a broker for connecting inventors with financiers & entrepreneurs in an effort to form (academic/private sector) teams/networks that in turn could effectively commercialize the intellectual property developed at UPRM. Additional activities will include support in submitting SBIR/STTR proposals, and incubation services both at VITEC2 and BDTC. The S&T Trust will also assist PRTEC and the SEIEP project with various services and support to patent holders/commercialization partners. The UPRM Research & Development Center will work closely with PRTEC and its other partners in achieving this goal. Some of the patents are in areas such as renewable energy (improving efficiency in solar panels output), nanotechnology (nano particles), and physical sciences, among others.

## 3. Enhance the Global Competitiveness of Our Regional Cluster Members.

There are three areas where our cluster members have expressed need or interest for their future development and growth. These are marketing, qualification for doing business/sell to the federal government, and in exploring international markets. To provide assistance in these areas we have partnered with the PR SBTDC and PRIMEX to train the participants using modules already developed that culminate with a certification (International Trade Certificate and Federal Government/Aerospace procurement).



SEIEP Activities Schedule																								
Event Types	2011						2012						2013											
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
<b>Workshops</b>																								
Entrepreneurship		2	3											2	3									
Technology Commercialization																								
Intl. Trade Certificate (NASBITE)																								
Federal Gov. Procurement																								
<b>Elevator Pitch Competitions</b>																								
Intra University					5												5							
Regional								1												1				
<b>Mentoring Business Plan Competitions and SBIR</b>																								
<b>Match-making / Networking</b>																								
<b>Technical assistance / Bus. Incubation</b>																								

PRTEC expects the following measurable results of this project:

- i. 6 new university related startups established by students and/or researchers and that have being accepted at one of Vitec2 incubation modalities.
- ii. 2 patents out of the 24 UPRM patents commercialized or in the process of being commercialized (teams formed and business plan developed).
- iii. 5 new cluster members exporting their products/services.
- iv. 2 new cluster members certified to do business with federal/defense agencies.
- v. At least 150 total jobs created by the new startups or cluster members expansions.
- vi. At least \$7 million of private investment resulting from the above mentioned activity. This will be estimated from the various projects business plans projections, and will take between 3 to 5 years to achieve.

Also, progress reports will include number of persons participating at the various workshops, seminars, networking activities, and technical assistance one to one meetings. We expect to impact more than 200 participants in our various activities during the two year project period. Finally, the process and curriculums developed for the SEIEP project

will also be a deliverable of the project, and will be used by PRTEC and its regional ecosystem long after the EDA funding is over.

#### **A.4 Investments (Project) Impact and Fit with EDA Funding Priorities**

Our project clearly satisfies the six EDA investment priorities. These are:

1. **Collaborative Regional Innovation** – PRTEC by its own definition is a regional (Western Puerto Rico), collaborative (its Board of Directors is integrated by private sector, academia, and government both at the state and local level), and its mission is to promote innovation based economic development for our region. The project uses PRTEC operating model of regional collaboration to strengthen our innovation ecosystem in western Puerto Rico. In conducting the described scope of work PRTEC will strengthen and expand its long-term collaboration with regional entities such as the Western Region Chamber of Commerce, the PR SBTDC regional office, PRIMEX, regional university campuses, and various municipal governments (see endorsement letters).
2. **Public/Private Partnership** – PRTEC will be using public (Puerto Rico Industrial Development Company), and private (Science & Technology Trust) to leverage EDA funds in the creation and development of our project. Other public and private organizations will also provide in kind support to the project (see commitment letters).
3. **National Strategic Priorities** – PRTEC will be including in the project our regional innovation clusters. Those clusters are in areas of national priority such as Renewable Energy, Medical Devices and Aerospace/Information Technology. Companies from these clusters will be targeted so they can benefit from the activities of the project and expand and grow their operations. Also, the project will support the creation of new startups in those fields as well. This project complies with the Comprehensive Economic Development Strategy (CEDS) of the Puerto Rico Planning Board (see endorsement letter).
4. **Global Competitiveness** – This project will focus in high growth and innovation based companies to expand and compete locally, nationally and in global markets. Both target groups (startups & cluster members) will benefit from activities designed by PRTEC and its partners in areas that will enhance their global competitiveness. Also, the commercialization of UPRM patents/intellectual property will integrate the region in the global markets by refocusing its development model into one based on innovation.
5. **Environmental Sustainable Development** – This project will integrate companies that are members of our renewable energy cluster that in turn features product and services that have direct impact in preserving the environment and in modifying customer behaviors towards sustainability. Also, the project will be in

direct contact and will benefit from the Planning Board Renewable Energy Cluster/Roadmap/Investment Strategy project also funded by EDA.

6. **Economically Distress and Underserved Communities** – The project will take place in the western region of Puerto Rico (17 municipalities). This region is one of the most affected by manufacturing layoffs and in turn its unemployment rate (17.1%) has been higher than the state (15.8%) and national levels (9.5%) for the last 24 months, on average. (See Unemployment Information Table).

## **A.5 Applicant's Capability**

The Puerto Rico Technoeconomic Corridor (PRTEC) will be in charge of the administration, implementation, and outreach activities for the project.

### *Administration*

PRTEC will use its experienced staff to develop and manage the project. In addition, a project manager will be hired for the day to day operations of the project. (See project staff). This includes the following tasks:

- preparing the original project plan
- preparing operational and fiscal reports to EDA
- coordinate activities with the different partners and participating universities and clusters
- any other task related to the project

### *Implementation*

PRTEC project staff will host initial strategic meetings with the partners, stakeholders including participating universities & clusters to organize activities and time tables. Implementation of the project leverages on various MOU and existing relationships with the organizations included in the project.

### *Outreach Activities*

The project will be promoted mainly by flyers, invitations and presentations of the project at meetings with target groups. PRTEC will also use e-marketing tools for the project through its web and social media sites. We expect to be able to attract interested participants from these activities.

PRTEC has been in operations since 2001, and from that moment on it has managed over \$3 million in federal, state, local, and private funds for its various programs and initiatives. The most significant of all these programs has been managing the incubator program/facility better known as Vitec2. PRTEC has managed Vitec2 since 2003 and has received \$1.8 million from PRIDCO towards that end. This grant has been renovated in three consecutive periods, given the successful results obtained from our incubation and landing site programs. Among the results are:

- Assisted in the establishment of 20 new technology based startups, 7 of those already graduated from the incubation program at VITEC2, 6 are winners of the state business plan competition, 5 SBIR phase I and 2 SBIR phase II winners, and 2 have patents and 3 pending patents. These startups in turn have created more than 150 jobs in the region.
- Attracted 5 new aerospace companies (Infotech Aerospace, Honeywell, Lockheed Martin, Florida Turbine Technologies, and Essig Research) that established operations in our region, 4 of those initially landed at Vitec2. These companies have created/committed 2,000 new jobs in the region.
- All this has resulted in more than \$10 million in private investment during the last 7 years.

PRTEC has experience working with EDA in the past. We received a \$50,000 planning grant for the creation of a Master Plan for the Guanajibo Research & Innovation Park (GRIP) in 2007. More recently, PRTEC is participating in two other federal grants as a sub-contractor. One from HHS in collaboration with Partners for Community, and another from the Department of Energy, in collaboration with the Puerto Rico Energy Affairs Administration.

## **A.8 & A.9 Budget Narrative and Matching Funds**

### **a. Personnel (Staffing Plan):**

#### **Personnel (Project Manager, Business Developments Specialist, Commercialization Specialist, Incubator Manager, PRTEC Executive Director) - \$372,000 in total.**

Mr. Nelson Perea, PRTEC Executive Director, will devote 50% of his time to the Project which amounts to \$40,000 per year for a total of \$80,000 for the grant period. Mr. Perea will be the contact person for the project with the federal, state and local governments, and will coordinate the participation from the different partners of the project. He will also be in charge of all financial and administrative tasks related to the project. The funds will come from non-EDA sources of the project.

Mr. Jaime Morales, Project Manager, will devote 100% of his time to the project which amounts to \$48,000 per year for a total of \$96,000 for the grant period. \$72,000 will come from EDA and \$24,000 from non-EDA sources. He will be in charge of coordinating all the different activities and tasks of the project. He will also prepare all the reports and evaluations from the project.

Eng. Héctor Carlo, VITEC Incubation Manager, will devote 50% of his time to the project which amounts to \$40,000 per year for a total of \$80,000 for the grant period. \$40,000 comes from EDA, and \$40,000 from non-EDA sources.

Business Development Specialist will devote 100% of her time to the project which amounts to \$24,000 per year for a total of \$48,000 for the grant period. \$24,000 will come from EDA and \$24,000 from non-EDA sources.

Commercialization Specialist, will devote 100% of her time to the project which amounts to \$24,000 per year for a total of \$48,000 for the grant period. The \$48,000 will come from EDA.

### **b. Fringe benefits:**

Fringe benefits include social security, unemployment, disability, and medicare, among others. That accounts for 12% of the salaries of the personnel involved in the project; \$22,080 will come from EDA and \$22,560 from non-EDA sources.

### **c. Travel:**

The project has a total of \$10,000 in travel expenses for the two year period. This will be to go to conferences in the Continental United States for best practices purposes. The funds will come from non-EDA sources.

**d. Equipment:**

The total amount for equipment is \$4,520 and it will come from EDA funds. In this category we include the purchase of 2 laptop computers, one printer, and one projector.

**e. Supplies:**

The total amount for supplies is \$6,000. This includes office supplies and promotional materials. Funds will come from non-EDA sources.

**f. Contractual:**

The total amount of this category is \$107,440. \$60,000 will come from EDA funds and \$47,440 from non-EDA sources. Included here are the International Trade Certificate workshops by the PR SBTDC, federal government/aerospace procurement workshops by PRIMEX, and other SBIR and marketing support special consultants.

**h. Other:**

**Technical Assistance & Incubator Space**

There will be incubation (office & lab) space available for startups and/or expansions of entrepreneurs participating in the project at VITEC & BDTC. We estimate that utilization of that space will amount to \$39,000 per year for a total of \$78,000 for incubation space for the grant period (2 years). This estimate is based on 7 startups participating per year at VITEC and 5 at BDTC. Of those \$54,000 comes from EDA and \$24,000 from non-EDA.

**Matchmaking & Networking Activities**

The total amount is \$24,000, \$20,000 from EDA and \$4,000 from non-EDA sources. This includes expenses related for coordination of the above mentioned activities, including: food, beverages, and other related expenses.

**Administrative Expenses**

The total amount for this item is \$48,000 or \$24,000 per year. These include rent of office space for the project, utilities, telephone and related expenses. They will come from non-EDA sources.

**PRIDCO** Matching amounts \$270,000 during the grant period for overall projects activities, PRTEC personnel salaries, fringe benefits, professional services, and other administrative expenses.

**S&T Trust** Matching amount to \$50,000 for the grant period. These will be used in professional services, incubation space, travel, and other activities.

**PRTEC** Matching will be \$30,000 for administrative expenses for the two year grant period.