



THE BI-NATIONAL SUSTAINABILITY LABORATORY: A FACT SHEET AND UPDATE (7/18/01)

Background

Sandia National Laboratories has long been interested in global conflict prevention through peaceful means. This is reflected in our Vision statement: “Helping the nation secure a free and peaceful world through technology.” Research has shown that borders between countries of widely differing economic opportunity are significant stress points. Even if they do not foment armed conflict, as they do in many parts of the world, these borders serve as stress points for infrastructure, security, and health. Sandia believes that only by fostering economic development can stresses be reduced and true border stability and transparency achieved.

The Bi-National Sustainability Laboratory (BNSL) on the US-Mexico border is a test of this concept. The BNSL is not envisioned to be a laboratory like Sandia, but rather an institution whose goal is sustainable economic development through the appropriate application of technology. It is intended to facilitate the implementation of technology by existing industries as well as to foster the development of new industries through technical and business development assistance.

Because of this unique role, it is difficult to envision the BNSL as a facility captive to any given U.S. or Mexican government agency. Rather it is anticipated that the BNSL will be managed by a non-profit entity capable of accepting funding from public and private institutions in both the US and Mexico. Sandia is the author of this concept and is actively pursuing partnerships with such entities to bring the BNSL to fruition.

Goal and Vision

The goal of the Bi-National Sustainability Laboratory initiative is to foster long-term, sustainable economic development on both sides of the US-Mexico border. The Laboratory will achieve this goal by helping to create new small and medium-sized enterprises, and to strengthen existing ones, resulting in increased numbers of higher paying jobs. The Laboratory will form product-oriented teams that incorporate the technical, business, marketing and financial expertise necessary to increase the success rate of new product implementation—helping industry cross the developmental “valley of death”. This is a long-term economic development objective that will require years to fully achieve. The resulting increased household income will allow border communities to have the wealth necessary for infrastructure development leading to improved quality of life.

Business Targets

The BNSL will target industry development in those areas in which its technical/business base can make an impact, with a bias toward improving quality of life in the border region. The initial focus will be on activities related to advanced manufacturing, from both a business development and capacity building viewpoint. In addition, water and advanced agricultural, health care, education, and communications will be areas of emphasis.

Laboratory Features

The BNSL must be truly bi-national to be successful, with key staff from the US and Mexico working together with common goals, responsibilities, and rewards. We have symbolized this by describing the laboratory as being astride the border.

The Laboratory represents a new era of economic growth along the border, leading to a new vision of prosperity. Such a facility should ideally be located in a city that has the same attributes—a sustainable bi-national city of tomorrow. One such potential site is the planned development at Santa Teresa and San

Jeronimo, located within easy reach of El Paso. We have chosen to utilize this site in our BNSL discussions to symbolize this siting concept, but actual site selection obviously awaits a commitment to implement the project.

The Laboratory's goal is to bring new, advanced technologies to commercial fruition. This unique facility will rapidly become a forum for the best in applied technology, product realization and business development. To symbolize this new laboratory concept we have chosen to envision a building designed to embody a combination of the cultural traditions of the past and the vision of the future.

Laboratory Partners

The Bi-National Sustainability Laboratory cannot achieve its goal on its own. It must team with a multitude of existing institutions in both countries including universities and community colleges, economic development organizations, state and local government agencies, and non-government institutions. For example, educational institutions will serve as a source of laboratory staff, provide the education and training programs needed for business development and expansion, and serve as a source of new concepts for commercial development. In addition, there are a large number of existing programs in the border region, many of which have goals and objectives synergistic to the goal of the Bi-National Sustainability Laboratory. We hope to partner with these programs to learn from and work with them. In the past months we have developed relationships with institutions and organizations such as the Cross-Border Institute for Regional Development (CBIRD), Rotary International, WERC, SCERP and the New Mexico Manufacturing Extension Partnership. At present, we are working to formalize an alliance with the US-Mexico Foundation for Science to help us move forward with the concept. The Foundation is an ardent believer in the BNSL goals and will help us build the bi-national constituency the concept needs.

Current Activities

Sandia is currently working on several projects that may positively impact the US-Mexico border region. These include protected agriculture, evaporation suppression, new desalination technologies and the application of specific advanced manufacturing technologies. In addition the BNSL team has initiated two near-term projects targeting small business development. The first involves design modification and deployment of a lower-cost, reliable solar still for use in the colonias. The project team includes a startup company, NMSU, and UTEP funded by the National Border Technology Partnership Program, and Sandia materials experts funded under Sandia's Small Business Technical Assistance Program. Hardware deployment is being funded by EPA. The BNSL team's goal is to develop a viable border industry with a product that can impact quality of life in the region as well as have broad market applicability.

The second project is aiding in the deployment of an internet-based epidemiology tracking project utilizing technology developed under DOE Non-Proliferation Program funding. A BNSL team member is providing on the ground contact and support to help assure user acceptance of this valuable public health tool. If successful, this effort, while directly impacting border health, will also help foster a local medical technology support industry as well as have synergistic impacts on regional communications companies.

Sponsorship

Current Sandia activities to define and develop the BNSL concept are funded by Sandia National Laboratory internal funds. Although some activities underway in the region being assisted by the BNSL team do have DOE funding, no DOE program funds are used for this assistance, for the promotion of the BNSL or for BNSL team expenses.

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