

PEACE LAB

Sandia proposes a trans-border problem solver at Santa Teresa

By Diane Velasco
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In its quest for a peacetime mission, Sandia National Laboratories plans an unprecedented binational laboratory that would straddle the U.S.-Mexico border at Santa Teresa.

The lab's mission: creating community wealth.

The wartime behemoth has discovered a new ideology prosperity equals peace. Sandia officials say economic disparity is a root cause of conflict and the antidote is sustainable economic development.

"Sandia will put as much emphasis on conflict avoidance and resolution as it has put on national security in the past," said Gary Jones, manager of the lab's international partnership development office. "Economic differences are a catalyst for conflict."

The binational laboratory concept was presented March 20 in Albuquerque to a group of scientists from Sandia, the Department of Energy and others gathered for a workshop on sustainable economic development of the Southwest border.

Sandia's new economic focus is attributed to a dozen people who make up the Advanced Concepts Group, formed when the national lab reorganized 18 months ago. The group includes a cultural anthropologist, business planner, communications specialist, political scientist and historian.

The mandate is "to find high-impact solutions to emerging national and global problems," said Vipin Gupta, a scientist doing initial border research for the group.

The binational laboratory meant to attract the best and brightest scientists from both countries would create ideas to solve border environmental, health and economic problems.

The lab's technology also would generate business development that could have a global market impact, thus lifting border communities out of poverty.

The vision for the laboratory came to Gerold Yonas, the Advanced Concepts Group lead scientist, as he wandered through a poor section of Ciudad Juarez, Yonas said.

He chose the place after learning about the binational city of Santa Teresa and its Mexican counterpart, San Jeronimo, planned by Santa Fe businessman Chris Lyons and Mexican millionaire Eloy Vallina.

"It's an unprecedented opportunity that was handed to us on a silver platter. It's meant to be," Yonas said. "Changing scarcity to abundance imagine the change in the spirit of the people."

The location was also chosen because it is about midway along the 2,000-mile border and represents a hotbed of challenges the binational lab wants to address, Gupta said.

But Jones emphasized the binational lab would not be made in Sandia's image.

“It is not a branch of Sandia on the border; it is not a national lab like Sandia; and it is not a research center,” he said.

This lab would involve many entities united to bring practical solutions to border problems. The concept is “bringing the brains to the problem instead of the problem to the brains,” Yonas said. “It’s a long-term vision married to a short-term application of existing technology.”

So far, Yonas’s group is partnering with Gary Scott, assistant manager of the DOE’s Carlsbad office, which was designated as the lead office on border activities by then Energy Secretary Bill Richardson last year. Scott heads the National Border Technology Partnership Program.

Another partner is the United States-Mexico Foundation for Science, headed by Guillermo Fernandez de la Garza. Garza, a physicist and engineer, sounded like a corporate zealot as he expounded the need for a practical business approach to the border’s long-standing problems.

“You have to have priorities, market analysis and strategic analysis of how to convert research into specific business development,” he said at the March 20 meeting. “But unless you have a focus on specific business opportunities, the probability of success decreases quite a lot.”

When Yonas and others from Sandia first approached him with the idea of a binational laboratory, Garza said, he realized it was a “very forward-looking, progressive and important idea.”

“It will be very difficult to implement, but it’s doable given the present political conditions in both countries.”

Gupta said the binational laboratory concept would eventually be expanded to other parts of the world. But for now “the stars are in alignment” for starting at the U.S.-Mexico border.

“Bush is calling for a special relationship with Mexico and (Mexican president) Fox is presenting a powerful vision of an open border,” he said.

Like idealists leery of dream-crushing criticism, the Sandia scientists are hesitant to say too much about their concept.

“This isn’t a half-baked idea the dough hasn’t even been put on the cookie tray yet,” Jones joked.

Gupta emphasized they are just beginning to identify partners for the venture.

“We will present this cookie dough to different audiences and will be molding it along with input from Mexican counterparts,” he said.

But, despite the formative stage of the concept, aggressive action steps have been mapped out. Already, performance measures have been defined:

- linking with business, education and government groups;
- increasing per capita income; and
- solving infrastructure problems.

Yonas flew to Washington, D.C., after the March 20 meeting to drum up federal support. He hopes to get an agreement between the U.S. and Mexican federal governments in a year and start to work within two years.

It is not the first time he has launched unconventional ideas in the federal bureaucracy. Yonas, a physicist, was a founder of Sandia’s technology transfer initiative before the law was passed

allowing it, he said.

Yonas encountered the same nay-saying about tech transfer then as he is encountering now with the binational lab concept. “I specialize in things that can’t be done,” he said.

He handles skepticism more like a big-picture executive than a scientist: “People are saying, ‘You can’t do it who would own it? Who would operate it? There’s no institution like this.’

“I tell them, ‘Look, I can’t be bothered with details. We’re going to get technology in the hands of real people.’”