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## National Labs Encourage Small Business Collaboration

*By Monica Abeita, Regional Development Corporation for Northern New Mexico Connect*

Members of Espanola Valley's Santa Cruz Irrigation District (SCID) believed they needed to invest in an expensive sediment trap to maintain the capacity of their reservoir. Sedimentation had filled more than a third of the reservoir, resulting in water rationing and a shorter growing season for the more than 3,000 farms that depend on its water. With help from a leveraged project through the New Mexico Small Business Assistance Program, the district learned that sediment was coming from multiple sources rather than just one, and it is now pursuing plans to build several smaller, less expensive traps.

"NMSBA prevented us from making a costly investment that would not be effective and offered better alternatives to benefit the farmers," said Kenny Salazar, orchard owner and board chairman of SCID.

The New Mexico Small Business Assistance Program — a joint project of Los Alamos and Sandia national laboratories and the state of New Mexico — provides free technical assistance and expertise from scientists and engineers to New Mexico small businesses facing challenges with testing, design and access to equipment or facilities. While individual businesses can request assistance anytime, the program annually considers leveraged projects involving multiple businesses with a shared problem that is too large or complex to solve in an individual project.

Small businesses can submit a pre-proposal for leveraged projects through July 8. The proposal should explain the problem, identify what expertise NMSBA offers that can't be found in the private sector at reasonable cost, and the expected economic benefit to the businesses.

### **Building a better airplane**

In 2010 under the leadership of Vibrant Corporation, four Albuquerque aviation companies used a NMSBA leveraged project to adapt a testing process used in the automotive industry. The team suspected that Process Compensated Resonance Testing (PCRT), traditionally used to test the strength of metal car components, would provide better stress detection for airplanes at lower cost.

Sandia National Laboratories compared known good and bad engine turbine blades using the aviation standard and PCRT. David Piotrowski from Delta Airlines and Sandia's Kirk Rackow,

Mike Bode and Justin Newcomer reported the results to the Federal Aviation Administration and applied for an “Alternative Means of Compliance” to allow all airlines to use PCRT.

Vibrant now inspects turbine blades with PCRT, and Delta Airlines’ TechOps – the nation’s largest commercial aircraft maintenance company – is implementing the process for stress detection. The FAA recognized TechOps and Vibrant with an award for helping to develop a sensitive, reliable and cost-effective model for inspection and testing.

As a result of the NMSBA project, Vibrant has expanded its market, and partner companies Mechtronic Solutions Inc., Firore Industries and ZTEC Instruments are realizing commercial benefits.

“The ability to work directly with Sandia’s aerospace experts has helped us to better understand our market and the opportunities it holds,” said Len Hunter of Vibrant.

Businesses interested in applying for a leveraged project should visit the NMSBA Web site at [www.NMSBAProgram.com](http://www.NMSBAProgram.com) and follow application instructions. For more information, contact Lisa Henne at 505-667-1710 or [henne@lanl.gov](mailto:henne@lanl.gov), or Jenni Degreeff at 505-844-9623 or [jldegre@sandia.gov](mailto:jldegre@sandia.gov).

*Finance New Mexico is an initiative of the New Mexico Small Business Investment Corporation (NMSBIC) and its partners to assist individuals and businesses in obtaining skills and funding-resources for their business or idea. To learn more, go to [www.FinanceNewMexico.org](http://www.FinanceNewMexico.org).*

