ANNUAL REPORT 2014

PERSPECTIVES

NMSBA
Los Alamos National Laboratory
Sandia National Laboratories

Solving New Mexico's Small Business Challenges

$43.7M

Technical Assistance Provided by Labs

2341

Businesses Assisted

4086

Jobs Created and Retained

33

New Mexico Counties Supported

Cumulative numbers since the inception of NMSBA in 2000.

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The New Mexico Small Business Assistance Program is a critical and valuable tool in providing our small businesses with access to technical expertise from our national laboratories here in New Mexico. This program helps our home grown businesses develop products and ideas that grow our economy and create jobs, putting New Mexico businesses at the forefront of development and innovation.

Demesia Padilla
Cabinet Secretary
New Mexico Taxation and Revenue Department
State of New Mexico

The New Mexico Economic Development Department greatly appreciates the work of the New Mexico Small Business Assistance Program. This program has resulted in the creation of many jobs in New Mexico and benefited many small businesses in developing their technical capabilities to provide them a competitive edge to succeed and grow.

Jon Barela
Cabinet Secretary
Economic Development Department
State of New Mexico

Dear Governor Martinez and New Mexico State Legislators,

It is our pleasure to share with you the 2014 Annual Report for the New Mexico Small Business Assistance (NMSBA) Program. This report showcases just a few of the hundreds of successful projects from 2014 and presents the overall performance of the program, both for the past year and since its inception in 2000.

During 2014, a total of 352 small New Mexico businesses participated in NMSBA to sustain and grow their companies. Thanks to the Laboratory Partnership with Small Business Tax Credit Act, the state of New Mexico, along with Los Alamos National Laboratory and Sandia National Laboratories, invested nearly $4.7 million of national laboratory expertise and resources to help small businesses in 31 counties overcome technical challenges.

Highlights from 2014 demonstrate the impact of NMSBA on small businesses from various industries around the state.

- An artist from Grant County received assistance in updating her vintage animation stand while still retaining its unique features and production capabilities.
- A group of three consulting firms from Santa Fe were helped to make their vision of a software tool, designed to reduce the risk of geothermal production, a reality.
- A company from Torrance County was assisted with 3D modeling of their prototype chemical transfer fittings, designed to protect against accidental mixing of incompatible chemicals during delivery to holding tanks.
- A manufacturer from Valencia County received assistance in testing and evaluating their line of prefabricated ductwork to ensure the connections could meet industry standards.

This year, Taos Mountain Energy Foods received the "Honorable Speaker Ben Luján Award for Small Business Excellence" for demonstrating the most economic impact. Through NMSBA, the company streamlined their production process and improved order fulfillment. As a result of NMSBA's assistance, the company realized $120,000 in cost savings and hired several new employees from the Taos area.

NMSBA has helped New Mexico's small businesses create jobs, increase revenues, decrease operating costs, and attract new funding opportunities. Since 2000, 721 technical lab experts from the two national laboratories have provided $43.7 million in technical assistance to 2,341 businesses, enabling 4,086 jobs to be created and retained across the state's 33 counties.

We thank you for your continued support of NMSBA, which promotes collaboration between our national laboratories and small business community. The positive relationships developed under the program lead to economic development and wealth creation throughout our great state.

Sincerely,

Micheline Devaurs
Los Alamos National Laboratory

Jackie Kerby Moore
Sandia National Laboratories

PROGRAM INFORMATION

OVERVIEW

In 2000, the New Mexico State Legislature created the Laboratory Partnership with Small Business Tax Credit Act for the purpose of "bringing the technology and expertise of the national laboratories to small businesses in New Mexico to promote economic development in the state, with an emphasis on rural areas." As a result, Sandia National Laboratories established the New Mexico Small Business Assistance (NMSBA) Program to provide technical support to small businesses throughout the state. Los Alamos National Laboratory began participating in the program in 2007. Jointly, the labs are committed to solving small businesses' critical challenges with national laboratory expertise and resources; influencing New Mexico business development by building capacity, capabilities, and competencies; and acting as an advocate for small businesses through an entrepreneurial culture.

During 2014, NMSBA helped 352 small businesses across the state reach business goals, develop their products for commercial use, and increase profitability.

NMSBA makes a statewide impact by:

- Enabling New Mexico small businesses to access cutting-edge technology
- Increasing New Mexico small businesses' technical sophistication and capabilities
- Sharing knowledge and resources between laboratory personnel and small businesses to address issues and develop real-world applications

While each company utilizes NMSBA in a different way, all use it as a means to maintain or grow their businesses. Our services are provided at no cost to the participating small businesses in the form of lab staff hours valued at up to $20,000 per calendar year for businesses located in rural counties and $10,000 for businesses located in urban counties (currently just Bernalillo County). The total amount of assistance is capped at $2.4 million annually for each laboratory. NMSBA may not provide assistance that is available in the private sector, and no equipment or cash can be given to a participating company.

Ben Luján Award

This year NMSBA recognized Taos Mountain Energy Foods with the "Honorable Speaker Ben Luján Award for Small Business Excellence" for demonstrating the most economic impact.

Kyle Hawari (left), CEO and Founder, and Brooks Thostenson, President and Founder, Taos Mountain Energy Foods

TYPES OF SMALL BUSINESS ASSISTANCE

Individual Projects

Individual NMSBA projects involve a single New Mexico for-profit small business. Projects address business-specific challenges that can be solved with national laboratory expertise and resources. Technical assistance challenges are wide ranging; however, the majority include testing, design consultation, and access to special equipment or facilities. Requests for individual projects are accepted year-round until funding is exhausted.

Leveraged Projects

Leveraged NMSBA projects allow a group of small businesses that share technical challenges to collectively request assistance. Leveraged projects address issues that are too large or complex to solve through an individual project. Proposals for projects are reviewed semi-annually by the NMSBA Advisory Council.

Contract Projects

Legislation allows NMSBA to contract with entities that have the capability to provide small business assistance services not available in the private sector. For the benefit of New Mexico's small businesses, NMSBA has contracts for specific services with the New Mexico Manufacturing Extension Partnership and the three state research universities.

The New Mexico Manufacturing Extension Partnership (New Mexico MEP) provides training and assessments in the areas of quality and lean manufacturing principles.

The University of New Mexico Management of Technology program at the Anderson School of Management evaluates the commercial potential of small business technologies and identifies commercialization challenges.

The Arrowhead Center at New Mexico State University evaluates small business capabilities and technologies using subject matter experts throughout the university.

The New Mexico Tech Department of Management interfaces with a variety of disciplines taught at the university to help accurately assess the current competitive position of small business technologies.

FUTURE DIRECTION

As NMSBA moves into the future, we will continue to support the growth and diversification of the New Mexico economy. Ongoing goals for the program include broadening the types of businesses receiving assistance, increasing the range of technical expertise offered by the national laboratories, and expanding the program's coverage in underserved rural counties. In addition, NMSBA continues to look for new opportunities and avenues to partner with New Mexico universities and leverage the capabilities of other business support programs for the good of our state's small businesses.

Left to right: Corey Cooper, UNM Student; Jason Strauss, CEO; and Raaj Mohan, CTO; Facility Facts

FACILITY FACTS

It was a true pleasure working with NMSBA. From this experience we were able to facilitate strategic partnerships that have proved very beneficial to our organization.

Jason Strauss
CEO
Facility Facts

Would you know what to do if your company had experienced a fire, flood, or other emergency situation? Founded in 2013, Facility Facts, based in Albuquerque, developed a software package that quickly and efficiently provides managers with the data and institutional knowledge to make good and timely decisions during emergency situations. Customized for each specific facility, the software helps to mitigate risk and has the potential to save lives and protect infrastructure.

As a small business, Facility Facts yearned to carve out a bigger place for themselves in an already crowded market. Jason Strauss was aware that such growth was fraught with risk and uncertainty, so he turned to NMSBA for help. NMSBA connected Strauss with University of New Mexico (UNM) professor Steve Walsh and a group of students, led by Corey Cooper, who specialize in management of technology and entrepreneurship. The UNM team worked with Facility Facts to develop processes for the company's management team to accept certain risks and take calculated actions. They also provided a number of pathways for the company to establish strategic partnerships to facilitate growth.

As a result, Facility Facts has been in discussions with various companies about the possibility of merging. The company is currently in the first stage of such an acquisition process. With the assistance from NMSBA, Strauss and his team have developed the skills to analyze their company resources to find new markets, which is vital to ensuring that the company continues to grow.

Meet the
PRINCIPAL INVESTIGATOR

Steve Walsh
University of New Mexico

Kate Brown, Owner/Animator,
Fundamentalist Flowerchild Productions

FUNDAMENTALIST FLOWERCHILD PRODUCTIONS

I felt the attention that NMSBA lavished on my project was extraordinary. It's not very often that a quirky, marginal business like mine gets this type of attention from such high-technology institutions.

Kate Brown
Owner/Animator
Fundamentalist Flowerchild Productions

A life-long artist, Kate Brown discovered a love for animation while attending Evergreen State College. After graduating, she founded Fundamentalist Flowerchild Productions, and began to create animated pieces. On Craigslist, Brown found an Oxberry Animation Stand, a 12-foot tall iron antique used for image capture, free for the taking. Although most animation is now digital, the experimental effects produced on an Oxberry remain desirable (oxberryproject.com).

For several years, the Oxberry occupied a corner of Brown's studio in the Mimbres Valley. In 2012, Anthony Hyde, director of the Manufacturing Technology & Engineering Center at New Mexico State University (NMSU), took a tile-making class from Brown and was intrigued with the machine. Brown explained that she wanted to refurbish the Oxberry to bring back the days of handmade, under-the-camera animation. Hyde pointed her to NMSBA, which paired her with Griselda Martinez of the Arrowhead Center at NMSU.

Martinez assembled an engineering team which updated the Oxberry's electronics, while retaining its unique features and production capabilities. Brown continues to explore the Oxberry's seemingly limitless possibilities while making the equipment available through workshops, classes and residencies to professional and college animators. She is also working with filmmakers in Albuquerque and Tucson to animate their film projects. Brown is pleased that she is attracting filmmakers and artists who are learning more about the art-rich Mimbres Valley while they study the Oxberry film production technique at her studio. To date, Brown has generated $45,000 in contracts through use of her refurbished Oxberry.

Meet the
PRINCIPAL INVESTIGATOR

Griselda Martínez
Arrowhead Center at New Mexico State University

William Glassley (left), Executive Director, Earth System Sciences, and Stanley Robb, Owner, Geo-Risk

GEOTHERMAL TOOL
LEVERAGED PROJECT

NMSBA facilitated the refinement and demonstration of a software tool that has enabled our Santa Fe companies to reach out to potential customers all over the globe.

William Glassley
Executive Director
Earth System Sciences, LLC

Clean, sustainable geothermal energy is a very attractive energy source. However, the capital costs needed to tap into geothermal energy are significant, making it important to minimize risks associated with site selection.

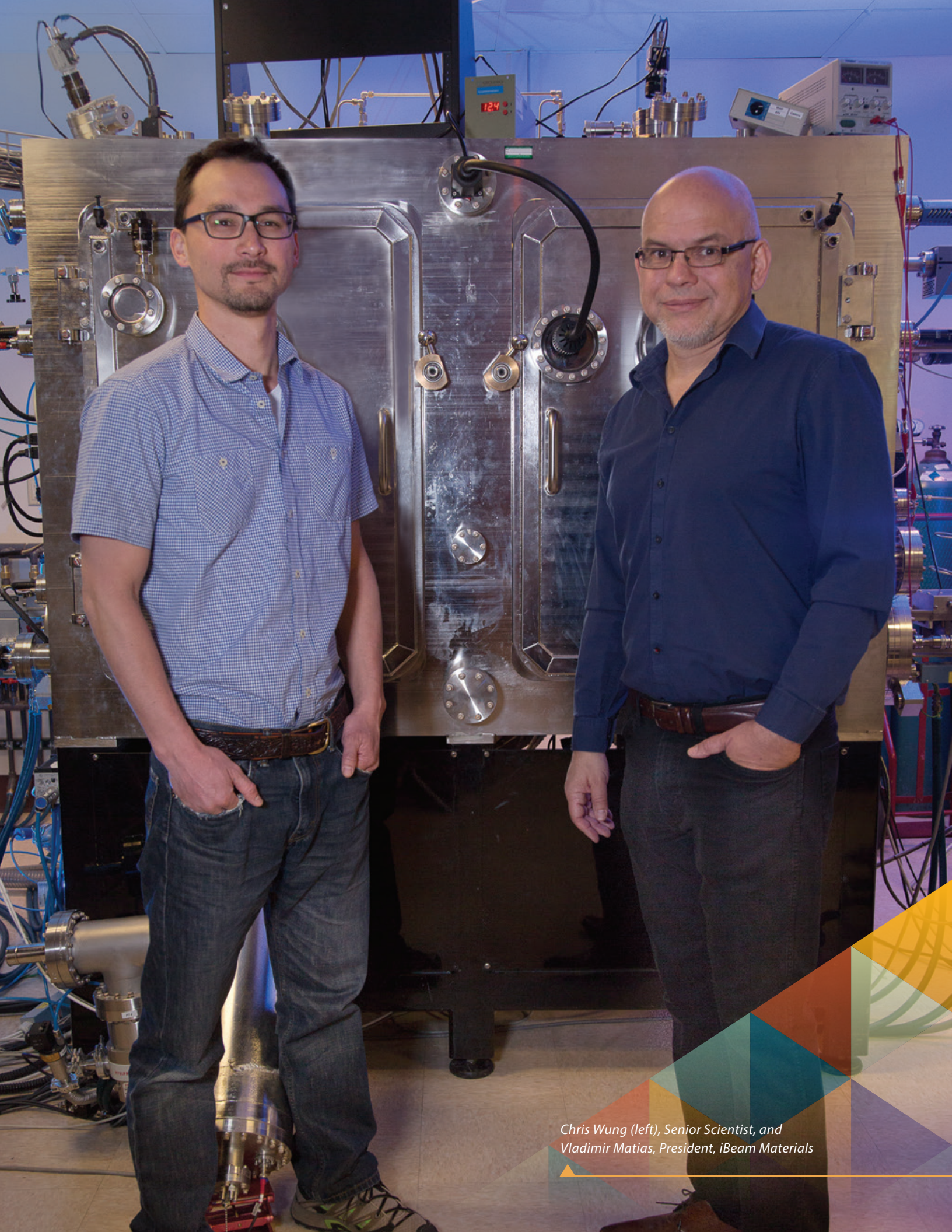
According to William Glassley of Earth System Sciences, a Santa Fe consulting company that provides analysis of data for evaluating geothermal resources, the type of analysis required to minimize risk is complex, and the availability of sophisticated modeling tools for this purpose is limited.

Glassley, along with partners from Geo-Risk and TERRAMAR, Inc., also of Santa Fe, formulated the idea of a software tool using statistical methods to conduct resource evaluation and risk analysis. Because no one in the consortium had all the technical expertise to make this software a reality, they reached out to NMSBA, which in turn paired them with Dylan Harp of Los Alamos National Laboratory. Harp was able to apply his expertise with tools used in decision support for remediation and monitoring of contaminated groundwater. Harp helped adapt existing analysis and visualization tools to geothermal exploration.

As a result of this leveraged project, the Santa Fe companies are using the revamped suite of tools to bring geothermal exploration into the 21st century. The software gives all three companies a distinct competitive edge in the global marketplace, with each pursuing million-dollar contracts. This competitive advantage has encouraged members of the global geothermal community to seek further collaborations with these small New Mexico companies.

Meet the
PRINCIPAL INVESTIGATOR

Dylan Harp
Los Alamos National Laboratory



Chris Wung (left), Senior Scientist, and Vladimir Matias, President, iBeam Materials

IBEAM MATERIALS

NMSBA proved critical in my company's early stage, when we were still developing the technology.

Vladimir Matias
President
iBeam Materials, Inc.

Imagine large-area, high-resolution, super-bright displays that are so incredibly thin and flexible they cannot be manufactured using current-day practices. Located in Santa Fe, iBeam Materials is currently refining a technology that may result in innovations related to lighting, display, and wearable electronics. iBeam Materials was founded in 2011 by Vladimir Matias, a former scientist at Los Alamos National Laboratory, based on the Laboratory's technology.

Today's light-emitting diodes, or LEDs, are limited by the need for substrates that are small, rigid and complex. The technology developed by iBeam, with contributions by both Los Alamos and Sandia National Laboratories, enables the creation of LEDs directly on flexible, large-area, and low-cost metal foils.

Matias asked NMSBA for help with evaluation of his samples by electron microscopy. NMSBA paired Matias with Los Alamos scientist Terry Holesinger, a former colleague, who performed SEM (scanning electron microscopy) and STEM (scanning transmission electron microscopy) characterization of Matias' gallium nitride samples. Holesinger provided detailed microstructural characterizations of these highly engineered samples to assist iBeam with process optimization.

As a result of the Los Alamos collaboration, along with assistance from Sandia under a Department of Energy grant, iBeam is one step closer to delivering their first product in 2018. Matias intends to target the horticulture lighting industry first and then expand into other lighting and display markets. The future is bright for iBeam's super-bright and flexible LED illumination devices.

Meet the
PRINCIPAL INVESTIGATOR

Terry Holesinger
Los Alamos National Laboratory

Brad Buffington, CEO, IC Tech

IC TECH

NMSBA assists small businesses like IC Tech, which do not have the resources or expertise to solve fairly technical problems. NMSBA basically fills a major niche for technical companies here in New Mexico.

Brad Buffington
CEO
IC Tech, Inc.

Imagine technology capable of remotely turning on or off a pump or other device while constantly collecting data so that users can respond to changing conditions without having to travel. At IC Tech, located in Albuquerque, engineers develop and implement such automated systems to help customers monitor water flows.

IC Tech sells a land-based radio with firmware custom-designed for its microprocessor units. The company was experiencing glitches with this radio that they just couldn't pin down. To troubleshoot the problem, they needed someone who knew C programming and understood SCADA (Supervisory Control and Data Acquisition), telemetry, and radio functionality. They tried to hire various individuals and companies to help, but no one around had the knowledge required. When Brad Buffington learned his company could take advantage of engineering services from the national labs through NMSBA, he decided to ask for help.

Buffington found working with NMSBA easy and efficient. They connected him with Michael Holzrichter and Don Small, two scientists at Sandia National Laboratories who possessed the expertise to identify and resolve the problematic portions of the firmware. The end result: no more glitches.

The improvements have enabled IC Tech to expand the system used by the New Mexico State Engineer and Interstate Stream Commission. The company gained $80,000 in additional revenues, enabling them to hire one part-time person. Buffington expects the job to become full-time next year.

Meet the
PRINCIPAL INVESTIGATORS

Don Small (left) and Michael Holzrichter
Sandia National Laboratories

Randy Brown, President and Owner, KemKey

KEMKEY

NMSBA proved instrumental in KemKey getting started, and Sandia was a great partner—I am not sure what we could have done without them.

Randy Brown
President and Owner
KemKey™, LLC

Transfer fittings have always been a problem in the chemical industry because they all look the same. Due to such similarities, accidents can happen. Such an accident took place recently when a truck driver inadvertently connected the truck's tank, which contained bleach, to a company's holding tank, which contained sulfuric acid. The resultant reaction spewed chlorine gas, injuring seven people and triggering a warning to area residents about the noxious vapors.

After years in the chemical industry, Randy Brown knew well the hazards associated with transfer fittings and came up with the idea for distinct types of fittings, color-coded to specific chemicals. The approach is similar to precautions taken with electricity—it isn't possible to put a 110-volt plug into a 220-volt outlet or vice versa.

After he filed a patent in 2012, Brown realized that he needed technical help to make his prototype fittings a reality, but didn't know where to find it. He was relieved when a potential investor pointed him to NMSBA.

NMSBA connected Brown with Juan Romero at Sandia National Laboratories. Romero applied his expertise in three-dimensional modeling to help Brown develop the transfer fittings prototypes, validate the designs, and make further improvements.

KemKey is now selling its transfer fittings, and its first customer is the Public Service Company of New Mexico. Revenues are increasing, and the company projects 20 times more revenue in 2015 than in 2014 and predicts at least four new full-time positions will be created.

Meet the
PRINCIPAL INVESTIGATOR

Juan Romero
Sandia National Laboratories

PROGRAM METRICS

VALUE OF PROGRAM ASSISTANCE IN 2014

In 2014 the state of New Mexico, along with Los Alamos National Laboratory and Sandia National Laboratories, invested nearly **$4.7M** helping **352** small businesses in **31** counties to solve technical challenges. The following table contains the number of small businesses that received assistance from NMSBA, dollar value of the assistance for calendar year 2014, and cumulative value from 2000 to 2014.

	Los Alamos	Sandia	Total
Number of Small Businesses Served			
2014	**161**	**197**	**352†**
Rural	136	108	239†
Urban	25	89	113†
2000-2014*	**620**	**1,909**	**2,341†**
Rural	479	1,186	1,532†
Urban	141	723	809†
Value of Assistance Provided			
2014	**$2,370,665**	**$2,310,890**	**$4,681,555**
Rural	$2,141,167	$1,631,630	$3,772,797
Urban	$229,498	$679,260	$908,758
2000-2014*	**$14,504,123**	**$29,238,236**	**$43,742,359**
Rural	$13,105,782	$22,440,995	$35,546,777
Urban	$1,398,341	$6,797,241	$8,195,582

**LANL began participating in NMSBA in 2007.* *†Some companies are served by both laboratories.*

ACCOUNTABILITY & ECONOMIC IMPACT

NMSBA, enabled by the Laboratory Partnership with Small Business Tax Credit Act, is accountable to the State of New Mexico for its expenditures. NMSBA measures its economic impact through client surveys conducted by Research and Polling, Inc., and economic analysis provided by Brian McDonald, PhD Economist. The survey and analysis are performed six months to a year after the completion of the project.

Economic Impact for Businesses from NMSBA Projects

	2000 - 2013
Return on Investment (ROI)*	**$1.13**
Small Business Jobs Created and Retained	**4,086**
Mean Salary	**$38,488**
Increase in Revenue	**$199,890,445**
Decrease in Operating Costs	**$84,986,140**
Investment in NM Goods / Services	**$68,319,082**
New Funding / Financing Received	**$77,094,569**

** ROI is based on salaries of jobs created and retained.*

BENEFITS TO NEW MEXICO SMALL BUSINESS

New Mexico small businesses achieved positive results after receiving technical assistance from NMSBA. Feedback from companies that participated in the 2013 economic impact client survey revealed that:

54% DEVELOPED A NEW PRODUCT OR TECHNOLOGY

52% IMPROVED OVERALL OPERATIONS

57% EXPANDED OR IMPROVED A PRODUCT OR SERVICE

54% BECAME MORE COMPETITIVE IN THE MARKETPLACE

48% IMPROVED THE EXPERTISE OR CAPABILITIES OF EMPLOYEES

NMSBA identifies the areas of technical expertise that the national laboratories and their contractors utilized in NMSBA technical assistance projects, as well as the industry sector for the participating companies. The county in which the small businesses are located is tracked to gain a better understanding of the reach of the program across the state.

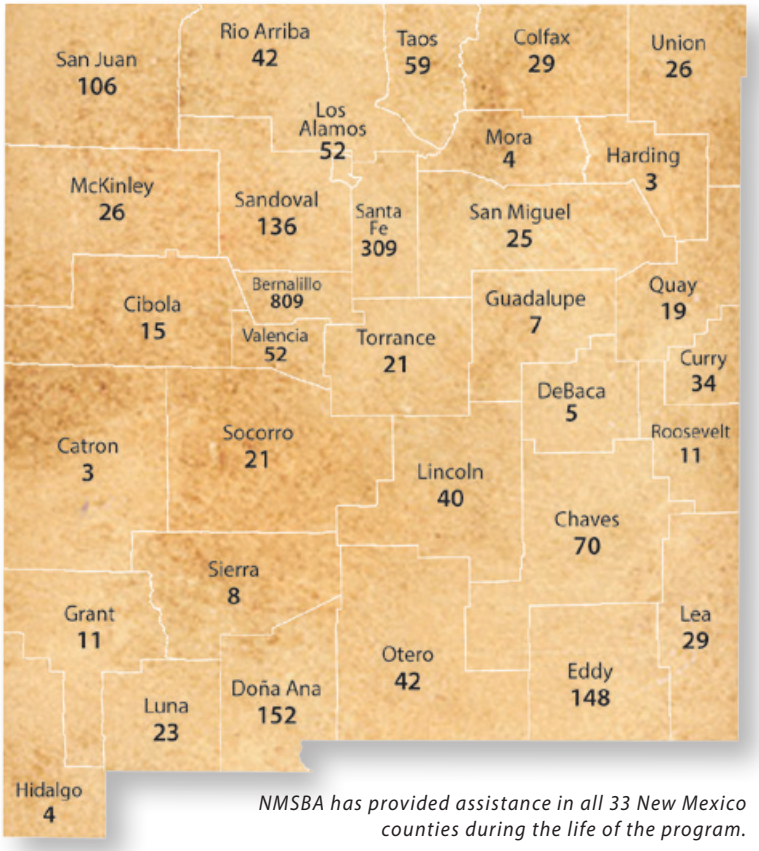
LABORATORY CAPABILITIES UTILIZED IN 2014

Manufacturing	22.6%
Engineering	17.3%
Advanced Modeling and Simulation	9.5%
Materials Science	8.7%
Business Development	7.8%
Energy	7.8%
Chemistry	7.3%
Biological and Medical	6.7%
Earth and Environmental Sciences	6.7%
Math and Computer Science	5.0%
Astronomy and Physics	0.3%
Micro-Nano Technology	0.3%

INDUSTRIES OF SMALL BUSINESSES SERVED IN 2014

Professional, Scientific, and Technical Services	37.2%
Manufacturing	32.4%
Agriculture and Natural Resources	14.5%
Retail and Wholesale Trade	4.3%
Real Estate, Finance, Insurance, and Management Services	3.4%
Oil & Gas, Utilities, and Mining	2.8%
Education Services and Health Care	2.0%
Media and Hospitality	1.7%
Other Services (except Public Administration)	1.7%

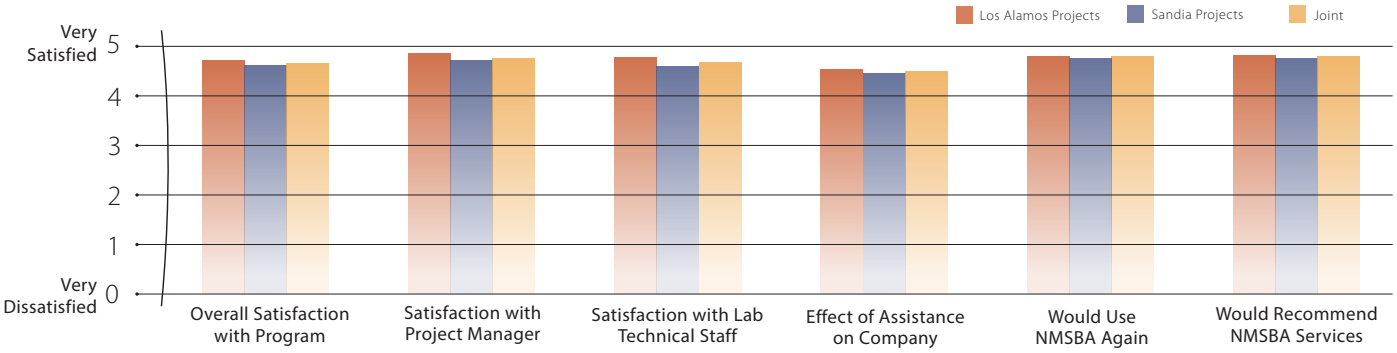
BUSINESSES ASSISTED BY COUNTY 2000–2014

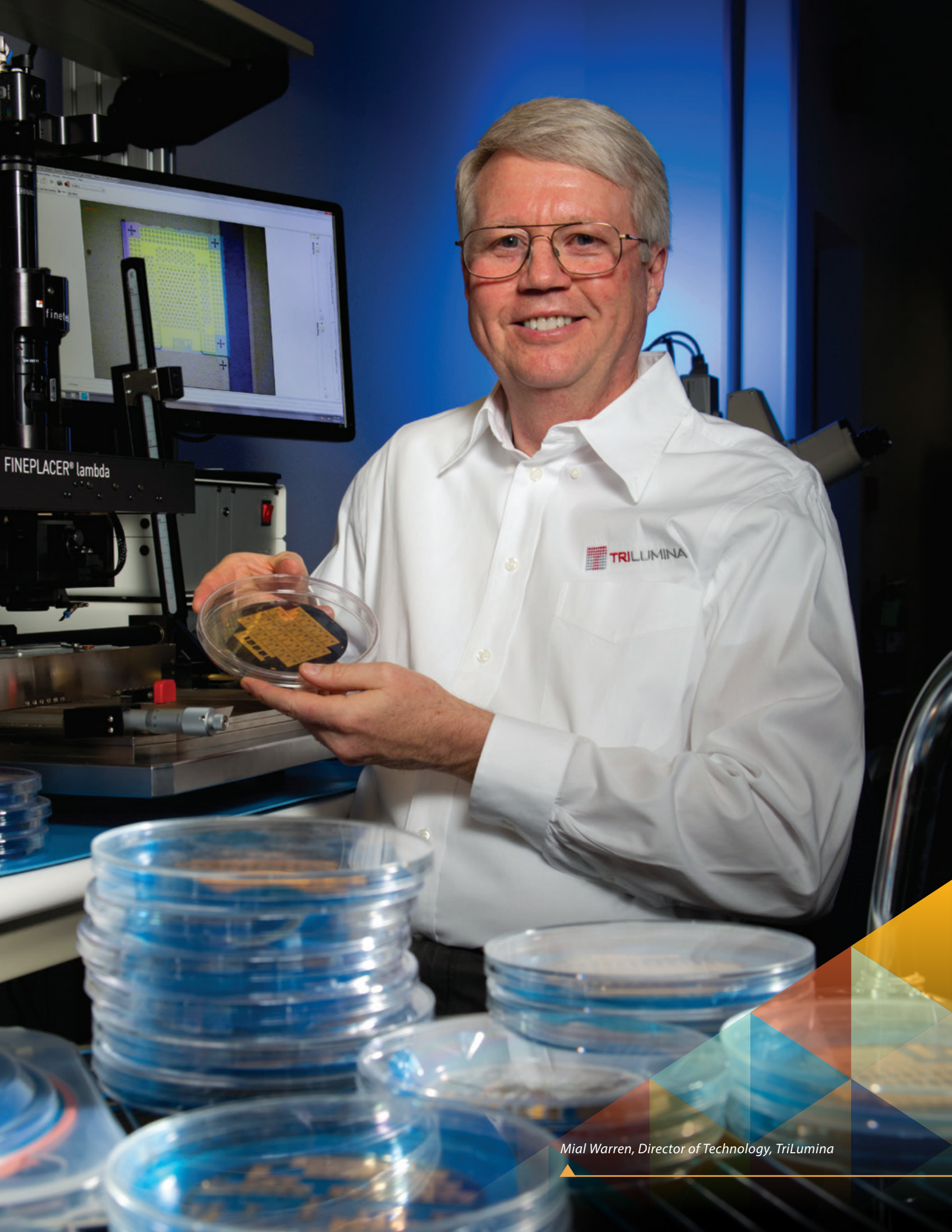


NMSBA has provided assistance in all 33 New Mexico counties during the life of the program.

CUSTOMER SATISFACTION IN 2014

Each year, NMSBA surveys the participating businesses to learn about their satisfaction with the program. In 2014, 84% of the businesses responded to the survey.





Mial Warren, Director of Technology, TriLumina

LASER ARRAY SUBMOUNTS
LEVERAGED PROJECT

NMSBA provides access to people and facilities that small technical companies like ours need. I do not know of any commercial company that would have provided comparable support for the problem we brought to NMSBA.

Mial Warren
Director of Technology
TriLumina Corp.

Based in Albuquerque, TriLumina is the first to demonstrate a technology capable of powering hundreds of individual lasers in perfect synchronization. The company's laser arrays can "see" the world in a dramatic new way. Applications for such lasers are almost limitless, from enabling humans to see in the dark to enhancing communication products.

Mial Warren, a retired scientist from Sandia National Laboratories and now a member of TriLumina, was aware of the opportunities NMSBA provided. Warren approached NMSBA to help with a laser-array-submount assembly. The submount provides electric contact for the lasers. TriLumina didn't have the tools or expertise to improve the performance of these submounts. Moreover, Warren realized that other companies in the greater Albuquerque area, such as Dynamic Photonics, Inc., 3D Glass Solutions, Theta Plate, Inc., and Ideum, Inc., would benefit from such improvement.

NMSBA matched the companies with Robert Brocato of Sandia's RF (Radio Frequency) and Opto Microsystems department. Brocato applied his expertise in high-frequency measurements and computer simulation to characterize, model, and optimize the assembly. He recommended design changes to the submount that enhanced its performance with the lasers.

The results provided TriLumina and the other companies guidance on how to improve the device's performance and further product development activities. The data accumulated during this project helped the company attract additional investors, including a Boston-based venture capital firm. The resulting investment enabled TriLumina to hire two new employees.

Meet the
PRINCIPAL INVESTIGATOR

Robert Brocato
Sandia National Laboratories

Kimberly Corbitt, CEO, Pharma Connect Xpress

PHARMA CONNECT XPRESS

NMSBA enabled me to secure expertise I could not find elsewhere in the nation, and these services were provided free of cost, which is a huge bonus for a start-up.

Kimberly Corbitt
CEO
Pharma Connect Xpress

Research estimates show that as many as 60% of medical practices restrict access to pharmaceutical reps, yet physicians continue to need informative resources. Pharma Connect Xpress offers a user-centered solution that transforms pharmaceutical promotion. Kimberly Corbitt worked with healthcare providers to develop a platform welcomed in offices and institutions nationwide.

With the Xpress model, everyone benefits. Doctors steer the conversation between the medical community and pharmaceutical companies. Pharmaceutical companies see an improved return on investment. Patients receive the support they need to be well, and doctors are empowered with effective means to do their work. Xpress connects these elements through rich data in a constantly improving cycle.

NMSBA paired Corbitt with Kary Myers, PhD, of the Statistical Sciences Group at Los Alamos National Laboratory. Myers applied her statistics and machine-learning expertise to explore data from Xpress's pilot studies. She recommended analysis strategies to obtain as much information as possible from the Xpress data set and helped craft a data-analytics story to explain the value of the Xpress system to stakeholders.

Myers's involvement gave Xpress the level of analytical sophistication needed to meet its goals. Xpress is using the results to help articulate the applicability and usefulness of the software. As a result, the company has attracted investments and the interest of potential partners from pharmaceutical companies and healthcare institutions. Xpress is currently in discussions with two nationally renowned medical institutions and anticipates creating three to five executive-level positions in New Mexico.

Meet the
PRINCIPAL INVESTIGATOR

Kary Myers
Los Alamos National Laboratory

Joaquin Sisneros, Vice President of Manufacturing, Sisneros Bros. Mfg.

SISNEROS BROS. MFG.

NMSBA gave me access to engineering prowess I just couldn't find in the private sector. This helped us prove that our product does what we say it does.

Joaquin Sisneros
Vice President of Manufacturing
Sisneros Bros. Mfg., LLC

More than 25 years ago, Abenicio Sisneros and his sons began to install ductwork in homes throughout Belen. In 1990, they noticed a huge demand for prefabricated ductwork for all types of structures. That's when Sisneros Bros. Mfg. shifted from installing ductwork to manufacturing it.

For several years, Sisneros Bros. Mfg. worked on developing a connection for ductwork that was leak-free and quick and easy to install. When the company went to market the product, customers were skeptical that the system could meet industry standards. Some customers asked for Sisneros Bros. Mfg. to have a third party evaluate the new system—only then would they be willing to invest in the new product.

Joaquin Sisneros approached NMSBA, which teamed the company with engineers Thomas Bosiljevac and John Robert Laing at Sandia National Laboratories. The two men possessed the engineering expertise to perform various tests and reviews of the company's ductwork system. The engineers conducted tensile and lateral testing, as well as a comprehensive vacuum test.

As a result of Sandia's work, Sisneros Bros. Mfg. invested $100,000 in equipment to begin manufacturing a whole new product line of leak-free ductwork. Production is expected to commence later in 2015 and will support two new jobs. The company anticipates sales of $250,000 of the new product to the semiconductor and pharmaceutical industries within the first year of production.

Meet the
PRINCIPAL INVESTIGATORS

John Robert Laing (left) and Thomas Bosiljevac
Sandia National Laboratories

Kyle Hawari (left), CEO and Founder, and Brooks Thostenson, President and Founder, Taos Mountain Energy Foods

TAOS MOUNTAIN ENERGY FOODS

NMSBA enabled me to tap into high-level resources and expertise. Our company has grown into a national outdoor lifestyle brand, and I couldn't be happier with how it's all panned out.

Kyle Hawari
CEO and Founder
Taos Mountain Energy Foods, LLC

In 2009, longtime friends Kyle Hawari and Brooks Thostenson moved to Taos to enjoy the outdoor life before setting off on their careers. While skiing the slopes, the two mused about starting a business together. They heard about the Taos Food Center, a community kitchen. As self-described ski bums, Hawari and Thostenson hit upon developing a high-quality energy bar.

Taos Mountain Energy Bars are quick and nutritious snacks for those who live for the outdoors. From their first sales in New Mexico, distribution of the bars expanded throughout the United States. As the demand for these bars escalated, Hawari and Thostenson found themselves overwhelmed. They turned to NMSBA for help streamlining the company's production processes. NMSBA paired Taos Mountain Energy Foods with the New Mexico Manufacturing Extension Partnership (New Mexico MEP). Cathy Musgrave and her team at New Mexico MEP assessed the company's problem to determine what facets of their production worked, what needed streamlining, and what needed significant improvement. New Mexico MEP helped the company reduce cooking times, automate manual processes, and improve ways the product flowed from customer order to customer receipt and fulfillment.

Taos Mountain Energy Foods realized $120,000 in cost savings by applying the techniques. Such savings, along with a Los Alamos Venture Acceleration Fund (VAF) award, enabled the company to expand its business to a 10,000-square-foot manufacturing facility in Questa. The company currently employs 17 people.

Meet the
PRINCIPAL INVESTIGATOR

Cathy Musgrave
New Mexico Manufacturing Extension Partnership

LEVERAGED PROJECTS

Lab	Project	Description	Business Participants	Counties	Funding
Sandia	**Agricultural Sunflowers**	Sandia National Laboratories provided technical consulting to evaluate the potential for establishing sunflower as a New Mexico crop. Sandia assisted with identification of appropriate seeds for the various farmer plots; developed a protocol for planting, growing, and harvesting; and evaluated the growth input parameters, sunflower biomass and seed oil content and quality.	EarthGift Group, The, dba EarthGift Herbals Granja Para Manana New Mexico Tree and Garden Center, LLC Sunsmith's Organic Greenhouses & Gardens Thompson Farms Tramperos Land & Cattle, LLC	Bernalillo Sandoval Torrance Union Valencia	$76,000
Sandia	**Algal Bioremediation**	Sandia National Laboratories tested water samples associated with the produced waters from hydraulic fracturing operations including produced water, flow back water, and produced water treated by algae bioremediation. Sandia tested the water for major element chemistry and radioactivity.	BioProcess Diagnostics, Inc. Eldorado Biofuels, LLC KD Consulting New Solutions Energy Corporation Pocagua Consulting	Bernalillo Santa Fe	$58,000
Los Alamos	**Algal Density Optimization**	Los Alamos National Laboratory assisted small businesses by conducting preliminary testing for components, feeding cycles, and conditions; isolating critical factors in culture density; and refining factors for optimized culture densities, including reconfiguration of lab setup, inoculation, and observation.	Caja del Rio Majada Co-op New Mexico Algae Production, LLC Santa Fe Design Group	Sandoval Santa Fe	$60,000
Sandia	**Aluminum-Coated X-Ray Filters**	Sandia National Laboratories provided technical consulting on the deposition of aluminum coatings on polycarbonate foils for the development of X-ray filters. The objective of the project was to collaboratively optimize the coatings for X-ray transmission and optical opaqueness with respect to film thickness, to demonstrate a path to process scalability based on publicly available processes, and to transfer this knowledge to the companies.	InSync, Inc. R & A Technical Manufacturing Industries (TMI)	Bernalillo Valencia	$38,000
Los Alamos	**Atrisco Biofuels**	Los Alamos National Laboratory assisted small businesses by investigating optimal nitrogen and phosphate concentrations for growth of algae strains *Chlorella sorokiniana* and subspecies. Consideration was given to price and availability in the choice of nitrogen and phosphorous sources. Adjustments were also made to light: dark cycles and intensity and other variables in an effort to enable sustained viability. Growth in 1% carbon dioxide enrichment was also investigated.	Atrisco Companies Benavidez Land and Cattle Michelle Henrie, LLC dba MHenrie Land Water Law	Bernalillo Santa Fe	$40,000
Los Alamos	**Bio Batteries**	Los Alamos National Laboratory evaluated the use of enzyme-based fuel cells that can power devices using ubiquitous liquids. Project tasks included testing sol-gel techniques that may lead to bio cathodes with stability up to one month, evaluating novel carbon (graphene oxide materials) as support for high current density anodes, and demonstrating an integrated best cathode and anode material on a paper that can produce electricity using glucose.	Batterade, LLC Carbonell Positive, LLC Cathodes for Africa, LLC	Sandoval Santa Fe	$40,000
Los Alamos	**CAFOweb Modules**	Los Alamos National Laboratory assisted the small businesses with technical specifications for the separation of existing software capabilities to create standalone capabilities and describing designs for database additions and new front-end functionality. Los Alamos also consulted on requirements and information gathering to construct the desired end-user environment and optimal architecture.	Anasazi Properties Brownrice Internet, Inc. CAFO Web Modules Glorieta Geoscience, Inc.	Santa Fe Taos	$79,000

Lab	Project	Description	Business Participants	Counties	Funding
Los Alamos	**Carbon**	Los Alamos National Laboratory assisted small businesses by performing nanoscale characterization of materials, including chemical, elemental, and structural analysis; microscale environmental analysis of materials, including toxicology and TPH uptake evaluations; and macroscopic test of benefit in local agricultural conditions, including an analysis of the resulting soil and water.	Cottonwood Capital Partners II, LLC Cottonwood Technology Group Growstone, Inc. Rancho Las Lagunas, Inc. Sun Mountain Capital xF Technologies fka Incitor, Inc.	Bernalillo Santa Fe	$102,000
Sandia	**Carbon Fibers**	Sandia National Laboratories performed analytical characterization on the carbon blacks to understand their basic chemical compositions. Using these recycled carbon blacks directly injected into a carbon fiber-containing composite manufacturing process Sandia examined them as a source of low-cost carbon. Nitrogen-containing compounds were explored to determine if they are required for ultimate fiber formation. Finally, Sandia researched the conversion of carbon blacks into high-quality carbon fibers or graphenes directly to be later used in a manufacturing process for building materials or other high-tech composites.	Adherent Technologies, Inc. Alternative Industry Resources (AIR) Division of Sandia Development, Inc. LRC Trucking, Inc. Thoma Industrial Technology Services & Applied Scientific Solution	Bernalillo Valencia	$39,000
Sandia	**Catalytic Water Remediation**	Sandia National Laboratories analyzed water samples and identified components that are not eliminated by conventional water treatment processes. Additionally, Sandia determined the state of technology regarding coupling two technologies from the businesses. Sandia analyzed TiO2 for its catalytic degradation of soluble organic compounds and combined this reaction with UV-irradiation. Finally, Sandia consulted regarding feasible designs for an affordable, novel water treatment system.	Angstrom Thin Film Technologies, LLC Canyon Blanco Ranch, Inc. Pino Creek Ranch Pure Water Technologies, LLC	Bernalillo DeBaca San Miguel	$38,000
Los Alamos	**Commercial Soil Mining**	Los Alamos National Laboratory conducted laboratory greenhouse plant testing along with field investigations and sample collection on and around the property owned by the small businesses. Los Alamos also conducted a field survey by laser-induced breakdown spectroscopy and laboratory analysis of the samples to determine their suitability for marketing as a commercial soil amendment.	Anthony & Cathie Hephner Ranch John Hephner Ranch JT Ranch Sofia Land & Cattle, LLC Wagon Mound Ranch	Colfax Mora Union	$60,000
Sandia	**Encapsulation of Biopesticides**	Sandia National Laboratories provided quantitative physical and chemical characterization of the encapsulation materials for the small businesses' biopesticide products. Results of the initial characterization were used for optimization and further development of encapsulation materials and evaluating their suitability for environmental delivery.	AquaCulture Solutions Dorian McKenzie Consulting EcoPesticides International	Santa Fe Valencia	$57,000
Los Alamos	**Four Corners Hub**	Los Alamos National Laboratory assisted the small businesses by evaluating feasible power flow paths to Four Corners using the PLAN-IX grid analysis tool; creating a combined concentrated solar/small modular reactor project profile with firm power availability; and identifying primary and alternate sales paths to the Four Corners hub. Los Alamos also evaluated power pricing hurdles, wheeling charges, and bulk power issues affecting power delivery.	Jurva Farms TDM Leasing, Ltd. Y Bar Ranch, LLC	Eddy Lincoln	$55,000

LEVERAGED PROJECTS (CONT.)

Lab	Project	Description	Business Participants	Counties	Funding
Los Alamos	**Geothermal Resource Assessments**	Los Alamos National Laboratory assisted the small businesses by developing a geothermal simulation sampling scheme to identify and weight plausible natural states. Los Alamos also helped develop risk analysis metrics based on production simulations and automatic visualization of results using Paraview. At the completion of the project, Los Alamos demonstrated the use of the tool on an example geothermal investigation.	Earth Systems Sciences, LLC Geo-Risk TERRAMAR, Inc.	Santa Fe	$60,000
Los Alamos	**Heppolt VAWT**	Los Alamos National Laboratory assisted by preparing a study plan to validate high-performance computing (HIGRAD/FIRETEC) simulations with sensor data collected from a vertical-axis wind turbine prototype. Los Alamos also assessed deflector angles, inlet scoops, etc., and incorporated the results into a model of the prototype turbine.	Heppolt Wind, LLC Morey Walker & Associates Engineering, Inc. TeePee C, Inc.	Curry Los Alamos Santa Fe	$54,000
Sandia	**Innovative Agricultural**	Sandia National Laboratories provided technical consulting and assistance on a systems-level approach for evaluating the most efficient greenhouse production systems to take advantage of ColdAg technology under New Mexico agricultural conditions.	Cold Thumb Agriculture Crocker Construction, Inc. McCune Solar Works, LLC Sentient Sensors, LLC Skarsgard Farms fka Los Poblanos Organics, LLC	Bernalillo Sandoval Santa Fe	$67,000
Los Alamos	**Irrigation Water Loss**	Los Alamos National Laboratory assisted the small businesses by analyzing historical data from existing studies of the Canadian River watershed to estimate a new baseline for Conchas reservoir irrigation water availability. Los Alamos also conducted an engineering feasibility study of pipeline installation to replace open canal, including a consideration of the engineering potential for low-head hydroelectric production and a small number of wind turbines, as well as a life-cycle cost study of incremental pipeline-hydro development and wind energy including revenues generated versus investment and operating costs.	Arthur Insurance dba Tucumcari General Insurance Agency, Inc. Hoffman Farms (Tucumcari) Perkins Land, LLC Phillip Box Farms	Quay	$60,000
Sandia	**LASER Array Submounts**	Sandia National Laboratories characterized, modeled, and optimized an existing laser array submount assembly. Sandia used microwave S-parameter characterization of waveguide structures and vertical cavity surface emitting lasers (VCSELs) both as individual components and as complete assemblies. Once device characterization was completed, Sandia created a 3-D microwave simulation model and then tested that model against measurements of component assemblies. Sandia recommended design changes to optimize both array input impedance and inter-array reflection coefficients, and helped evaluate the improved design.	3D Glass Solutions fka Life BioSciences, Inc. (LBSI) Dynamic Photonics, Inc. Ideum, Inc. Theta Plate, Inc. TriLumina Corporation	Bernalillo Sandoval	$58,000
Sandia	**NM Cattle Water**	Sandia National Laboratories provided technical consulting to the small businesses by assessing water quality and performing geochemical modeling to predict the best water treatment methods. Additionally, Sandia researched and down-selected appropriate commercially available water treatment systems, and provided recommendations regarding the optimum water treatment steps to improve water quality.	Hightower Land & Cattle Company Shafer Ranches, Inc. Western Environmental Management Group	Eddy Lincoln	$58,000
Sandia	**nSights Debug**	Sandia National Laboratories utilized expertise of their open-source hydraulic test analysis software, nSIGHTS, to fix current issues associated with removed proprietary libraries in order to activate new opportunities for New Mexico small businesses.	HydroResolutions, LLC Walking Water Consulting	Eddy Lincoln	$27,000

Lab	Project	Description	Business Participants	Counties	Funding
Sandia	**Radar Films**	Sandia National Laboratories provided technical consulting to develop a mass-producible thin radar absorber, measure a sample of the absorber with a bi-static radar, and design potential future absorbers to account for fabrication effects and to support a limited set of other frequency bands of interest. These tasks were completed with the goal of improving the radar and EMI performance of the small businesses' small, portable shelters.	BMT USA, LLC Lifeline Building Sciences, LLC Litehouse International, Inc.	Bernalillo	$28,000
Los Alamos	**Reducing Solar CAC**	Los Alamos National Laboratory worked with the small businesses in the application of statistical methods to pre-qualify residential and commercial customers of rooftop solar systems. Los Alamos assisted with identifying demographic and psychographic data to support pre-qualification; providing guidance for processing and performing exploratory analysis on selected data; and applying statistical methods to aid in the creation of ranked lists of potential customers. The information will be used for field testing in targeted geographic areas.	Energy Concepts Corporation Evolving Energy Select Solar, LLC	Los Alamos San Miguel Santa Fe	$60,000
Los Alamos	**Telemetry**	Los Alamos National Laboratory assisted the small businesses by conducting testing for two-way communication, line-of-sight transmission communication from one sensor system to another, and system state-of-health (SOH) monitoring.	DarklingX, LLC JP Accelerator Works, Inc. Koch Consulting Randy Huston Ranch	Los Alamos San Miguel	$66,000
Sandia	**Tympo**	Sandia National Laboratories provided consulting to the small businesses on ways to enhance the photo-plethysmographic signal of their device including selecting appropriate, commercially available filters, improvement of their signal processing techniques, and optimal position and spacing of the device components. Sandia also provided consultation on the feasibility of collecting data indicating real-time lactate levels in the blood.	Healthcare Technology Group, Inc. Mather Wellness Communications Studio Hill Design TMA, Inc. Tympo, Inc.	Bernalillo	$42,000
Los Alamos	**Zia Pueblo**	Los Alamos National Laboratory assisted the small businesses by collecting and analyzing Pueblo of Zia's electricity usage (historic and future through 2025), combining utilization options into a common problem set and optimizing electricity demand-supply using proprietary software, and identifying one electricity utilization option as a short-term Tribal business strategy.	Apache Canyon Wind Creations David Breecker Associates, Inc. Mesa Verde Resources, Inc. Native Development Associates, Inc.	Quay Rio Arriba Sandoval Santa Fe	$62,000

INDIVIDUAL PROJECTS

Chaves
GeoScience Technologies
Joe Popek dba J & J Windturbine
Rich Glo Products, Inc.
Stewart Industries Int'l Roswell

Colfax
Cimarron Real Mountain Jerky
New Beginnings Gun Works

Curry
Airwest
D Petty and Associates, LLC
Douglas Reid Farm
Farming Services Company of New Mexico
dba FarmKo
Renovar Energy

DeBaca
Koontz Ranch

Dona Ana
Alma Energy Group, LLC
AmeriCom Automation Services, Inc.
Antenna Development Corporation
Clean Code, Inc. dba CCI Solar
dba 35 Solar dba Oso Coatings
Crazy Maizy's
David Bowers
GBS Environmental, LLC
R-Qubed Energy, Inc.
Samson Equipment, Inc.
Shouman Associates Engineering

Eddy
Blue Springs Ranch
CGS Group, LLC
George Rauch Ranch

Grant
Kate Brown Enterprises, LLC
dba Fundamentalist Flowerchild Productions
Life Genome Project, LLC
Restoration Technologies
Silver City Food Co-op

Guadalupe
David Hamby Design
Thompson Cattle Company

Harding
Ute Creek Cattle Company

Hidalgo
Lightning Dock Geothermal, HI-01, LLC

Lea
Ochoa Water, LLC

Los Alamos
Alpha Analytics, LLC
BioStim, Inc.
CreativeC, LLC
HyPwr, LLC
MIMICRI, LLC
Oasis Skin Spa, LLC
RockSmith Precision Machining, Inc.
SAV Associated Services, LLC
Sci Tac, LLC
Silverpeak Consultants
Tibbar Technologies
UbiQD, LLC

Luna
Amigo's Mexican Food
Compass Manufacturing Services Division

McKinley
Navajo Spirit Southwestern Wear
Newberry & Associates, Ltd.
dba Business Doctor, The

Mora
Union Land and Grazing Company

Otero
Arquin Corporation
King Solomons Court

Quay
Energy Related Devices, Inc.

Rio Arriba
Apache Fire Industries
fka Asher Fire Hose Company
Forestry Services of Chama
McFarland Instrumentation Services, Inc.

Roosevelt
Buddy Taylor
Hampton Farms
J. D. Heiskell & Company
Roosevelt Brewing, LLC

San Juan
AirStar, Inc.
Antelope Sales and Services
Bank of the SouthWest
Choman Enterprises
Cooper Fire Protection Services
GG's Designs, Alterations & More, LLC
Glenhasbah Renewable Energy
Technologies, Inc.
Henry Production, Inc. (HPI)
Jack's Plastic and Welding, Inc.
James R. Dennis Associates
Jumbo, Inc.
Largo Tank and Equipment
One Source Service
PESCO, Inc.
R & T Holdings, LLC
Real Green Building Systems (RGBS)
Real Green Homes, LLC
San Juan Closet Works
Surefire Burner Management Systems
Teton Energy Consulting, LLC
dba E3 Power and Water
Twin Stars, Ltd.

San Miguel
Environmental Building Sciences, Inc.

Sandoval
Arjuna Resources, LLC
Bladewerx, LLC
Breakthru Communications, Inc.
Carter Holdings, LLC
Data Center Transitions, Inc.
Fluid Analytics, Inc.
Insight Lighting
Inspyrd Products Corporation
Inspyrd R and D Corporation
Kaktus Brewing Company, Inc.
Krazy Beaver Tools, LLC
MCT Industries, Inc.
SAB Investments
Stolar Research Corporation
WEN Engineering

Santa Fe
Aerolenz
Amenergy, Inc.
AttoLight Group, The
Awesome Harvest, LLC
Big Sky Learning
Cantor Properties
Decysive Systems
Duel Brewing Company
eXplore Media
Focus Biomedical
Foxtrotter Geophysical, LLC
GO Electric, LLC dba GO Solar
Healthy Living Spaces
Herbs, Etc., Inc.
Hofstra Group, Ltd. Company
iBeam Materials, Inc.
Innovative Organic Solutions Intl., Inc.
IR Dynamics, LLC
Little Prairie Services
Mesa Photonics, LLC

Metallicum, Inc.
MS Flawless Goddess, LLC
Nano Catalyzer Systems, Inc.
National Water Services, Inc.
OpenEye Scientific Software, Inc.
Pajarito Scientific Corporation (PSC)
Pharma Connect Xpress
Phase One Ventures
Positive Energy Solar
aka Positive Energy, Inc.
POV Fund 1, LLP
QT Sequencing
Rader Awning, Inc.
Resonant Body
Retriever Technology, LP
Rio Grande Neurosciences
Samobi Industries, LLC (Manufacturing)
Samobi Industries, LLC (Research)
fka Samobi Block, LLC (Research)
San Miguel Sun Dwellings
Santa Fe Brewing Company, Inc.
Santa Fe Spirits
SAVSU Technologies
Sigma Labs dba B6 Sigma, Inc.
fka Beyond6 Sigma
Simtable
SolarLogic, LLC
SolarSPOT, LLC
STAR Cryoelectronics, LLC
Sustainable Resources, Inc.
ThermoDynamic Films, LLC
VB Enterprises
Vista Therapeutics, Inc.
Vitre International, LLC
Weka Biosciences, LLC
WindForce
Zetanostics, Inc.
Zoetic, LLC

Sierra
Centipede Tool, LLC

Socorro
Animal Haven Veterinary Clinic
of Socorro, PC
New Mexico Gold, LLC
Solaro Energy, Inc.

Taos
Biofuels & Energy, LLC
Musicode Innovations
Plenish Skincare
Private Label Select, Ltd. Company
Select One Consulting, Ltd. Company
Taos Mountain Energy Foods, LLC
Thalia, LLC
Vapour Organic Beauty

Torrance
KemKey, LLC
Sandia Tobacco Manufacturers
Titan Aerospace Holdings, Inc.

Union
Brockman Ranches, Inc.
Hutcherson Family, LP
Walker Brangus

Valencia
Sisneros Bros. Mfg., LLC

URBAN INDIVIDUAL PROJECTS

Bernalillo County
505access, LLC
Aken Technologies, LLC
Alan Shepherd Enterprises, LLC
Alcone Performance Products, Inc.
Apple Canyon Gourmet Company
Architrave Software, Inc.
Backerworks
Biophagy
Black Mesa Coffee Company, Inc.
Bocadillo's
Bogue Machine Company
CAaNES, LLC
Century Sign Builders
CIC Photonics, Inc.
CleanSpot, Inc. fka Oligocide, Inc.
Creative Networks
Desert Paper & Envelope
Company, Inc.
DiGregory Brothers, Inc.
DKD Electric, LLC
Energize Massage, LLC
fka Integrated Solutions
Environmental Restoration Group
ESME, LLC
Excel Manufacturing
Ex-El Shell Systems, Maintenance &
Consulting, LLC
EXHIB-IT!
Facility Facts
Finnprint, Inc. aka
WSI Webenhancers
Fiore Industries, Inc.
Gilly Loco Salsa
Gluten Free Gourmet Foods, Inc.
Gramley Research, LLC
Guardian Sensors, Inc.
fka Sentient Business Systems, Inc.
IC Tech Incorporated
Improve Group, The
Innobright Technologies, LLC
InvestNew Mexico.us, LLC
Jaguar Precision Machine
Corporation
James Tharp
Marble Brewing
Merlinda's Chile
Michael Wallace & Associates
(MW & A)
Milagro Distribution Corporation
Monarch Sign Systems
MVD Express
Nexus Brewery
NG Sensors Technology, LLC
Obregon SW
OGB Architectural Millwork, Inc.
Paragon Electric, Inc.
Plectone, LLC
Precision GIS, Inc.
Pressure Analysis Company
Proven Products & Services
PureColor, Inc.
Quality Foods of New Mexico
Radiant Technologies, Inc.
Red Rock Distributing Company, LLC
fka Red Rock Roasters
ReGen Technology fka SoilCo, LLC
RhinoCorps, Ltd. Company
RIEtech Global, LLC
Sandia Electro-Optics Corporation
Senior Scientific, LLC
Sharp Hydrographix
Simply Albuquerque Foods, LLC
SolaranRx, Inc.
Solpower Solutions
Sourcery, Inc.
SST-Technologies, LLC
Superior Machine
Sustainable Planet Solutions (SPS)
Taycar Enterprises, Inc.
Tecumseh Energy, LLC
Tetra Corporation
TransMix Safe Lock
Turner Manufacturing
Valley Gurlz Goodz
VanDevender Enterprises, LLC
Veeyah, LLC
Vibrant Corporation
Vulcan Holding
Welltec, Inc.
Yamasato, Fujiwara, Higa &
Associates, Inc. dba Aquila
Technologies Group, Inc.
Zelken Research, Inc.
Zeteo Tech, LLC

INFORMATION SESSIONS

NMSBA held Information Sessions in three different counties throughout the state in 2014. The sessions provided an opportunity for small businesses, local economic development representatives, and community leaders to network, learn about what the program offers to help businesses grow, and develop partnerships with Sandia National Laboratories and Los Alamos National Laboratory. Panel discussions by past NMSBA participants allowed company owners to share the positive impact they experienced as a result of their NMSBA projects. In addition, NMSBA project managers were on hand to answer questions about the program.

On April 9, NMSBA held an Information Session at Eastern New Mexico University in Portales. Rick Robey, Fatman's Beef Jerky Owner, and Robert Love, Airwest Owner, shared their experiences working with NMSBA.

On June 19, NMSBA held an Information Session at Arrowhead Center at New Mexico State University in Las Cruces. Panel participants were Mike Lisk (left), Remote Well Solutions Owner, and Kramer Winingham, 35 Solar CEO and Founder.

On September 23, NMSBA held an Information Session at the Quality Center for Business at San Juan College in Farmington. Doug Lenberg, Real Green Building Systems CEO, spoke about his multiple NMSBA projects.

PARTNERSHIP SUCCESS STORY VIDEOS

NMSBA has produced a series of videos featuring companies using national laboratory technologies to create or improve products and services, and solve real-world problems. The stories are told in the words of the principal investigators and small business entrepreneurs who worked together to achieve a common goal.

Dave Meurer (left), Armed Response Team President and CEO, and Dave Furgal, Sandia Video Technology Engineer, go over the technology used to protect an Albuquerque nursery from theft of landscaping materials stored outside.

RELIABLE VIDEO ANALYSIS HELPS SECURITY COMPANY GROW

Armed Response Team (ART) has grown to become the largest locally owned security company in New Mexico. With technical assistance from Sandia through NMSBA, ART got help so they could quickly bring workable video security solutions to market. By offering a reliable video analytic camera system, they've been able to reduce theft, add hundreds of clients, and increase their number of employees.

Watch YouTube Video
http://youtu.be/PU6TVTZVcAA

KEEPING MEDICINES COOL WITHOUT ELECTRICITY

The NanoQ container uses ice and nanoporous insulating material to maintain temperatures required for long-term storage of vaccines in remote areas. Yet how can ice be produced without electricity or batteries? With technical assistance from NMSBA, SAVSU Technologies developed an optimal design for a solar thermal ice maker. Now the NanoQ can be a game changer in vaccine storage and distribution in developing countries.

Watch YouTube Video
http://youtu.be/LKsXnS47rjg

Eric Coker (left), Sandia Principal Member of Technical Staff, looks over shipping containers developed by Bruce McCormick, SAVSU Technologies President, that safely transport and store temperature-sensitive vaccines and biopharmaceuticals.

ACKNOWLEDGEMENTS

- Thank you to all the small businesses for participating in NMSBA and for creating jobs and economic wealth for New Mexicans.
- Thank you to all the Los Alamos and Sandia national laboratories' Principal Investigators who applied their expertise and knowledge to help New Mexico small businesses solve their technical challenges.
- Thank you to the Governor's office and the New Mexico State Legislature for supporting the Laboratory Partnership with Small Business Tax Credit Act.
- Thank you to the Advisory Council for their leadership, advice, and guidance in support of NMSBA.

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Los Alamos National Laboratory
Sandia National Laboratories

Solving New Mexico's Small Business Challenges

www.NMSBAprogram.org

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U.S. DEPARTMENT OF ENERGY