Innovation and Regional Engagement at Los Alamos

Regional Coalition Board Meeting

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http://www.lanl.gov/projects/feynman-center/
Principles that define our approach to technology innovation:

- The US technology advantage in national security is tied to our ability to innovate. Government is no longer the primary driver of innovation in most technology areas.
- Innovation means the transition of ideas into technology for an end use. A critical means to achieve this objective is through engagements with the private sector.
- Los Alamos has a special responsibility as an FFRDC. Our role is to be a trusted adviser on technology and policy implementation.
- We must compete to demonstrate innovation. Our leadership status is not guaranteed.
- Competence in creating valuable Intellectual Property is essential for innovation.
- The ability to move at the speed of business (fast, fair, valuable transactions driven by an innovation strategy) is required to compete in a modern R&D enterprise.
- Success in innovation results in equities for programs, inventors, and line organizations.
- Our partners tell the most powerful stories about success in innovation, driving public awareness of the Laboratory, its people, and programs.
2,503 New Mexico companies supported

- **2,341 New Mexico small businesses** have utilized Los Alamos and Sandia technical assistance in all 33 counties
- **76 New Mexico companies** have licensed Los Alamos technology
- **53 entrepreneurs** have received LANS Venture Acceleration Fund awards
- **47 Laboratory employees** have taken Entrepreneurial Leave of Absence to support 27 companies in New Mexico and 5 out of state

Results

- **$47.0M**
  - Entrepeneurial Leave & Licensing in New Mexico
- **$138.2M**
  - LANS Venture Acceleration Fund
- **$407.8M**
  - NM Small Business Assistance Program
Moving energy technologies to the marketplace
- 10 years, 26 active projects
- >300 patents
- 6 technologies in commercialization stage
- 2014 R&D100 Award: Safire meter with GE

From Procurement to Partnership
- ABBA (Advanced Burst Buffer Appliance) I/O Performance
- Hardware-Software Design
- Next-Gen Storage

25 Years of Open Innovation
- Billions in P&G savings annually
- >150 plants, 35+ product categories globally
- Validation of weapons reliability codes
- Pioneering new models for DOE partnerships

A Business Model for Cyber Defense
- Insider Threat/Pathscan
- Global services firm’s scale and reach
- Data sharing, network of technology companies
- Impact across US infrastructure
New Leverage from Startups

**Descartes Labs**

- Among the 25 Most Disruptive Companies of the Year 2017 - INC
- Why DARPA Funded a Farm Tech Startup - Fortune
- Raises $30 million to better understand Earth with AI - Venture Beat

**Biotech start-up**

- Woos Watson machine-learning star from IBM - CNBC
- A Space Entrepreneur Has Launched Another Moonshot Venture -- and This One Involves Analyzing Your Gut - Forbes

**Landmark HIV Vaccine**

- Approaches Clinical Trial - US News & World Report

**NM startup**

- Radically streamlines drug development - Albuquerque Journal

**UbiQD**

- Named Top High-Growth Company and Job Creator in Northern New Mexico, Closes Round of Financing – PR Newswire

**Why DARPA Funded a Farm Tech Startup**

Descartes Labs raises $30 million to better understand Earth with AI

**Landmark HIV Vaccine**

- Approaches Clinical Trial

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**UbiQD**

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The U.S. Energy Secretary Ernest Moniz has announced $125 million of ARPA-E funding for innovative energy technologies to advance US energy security and help achieve climate goals.
A Consortium Approach to Big Science

National Alliance for Advanced Biofuels and Bio-Products (2010-2015)

- DOE/EERE/Biomass consortium, produce technologies for the developing the algal biofuel industry
- $54MM in Funding ($70MM with cost share)
- Exercising intellectual property, partnership agreements, transition to industry, leveraging of talent and facilities
The New Mexico Innovation Ecosystem

The Vision: A porous boundary with ebb and flow of personnel and technology between LANL and the greater NM community, benefitted by a strong tech sector and entrepreneurial infrastructure.