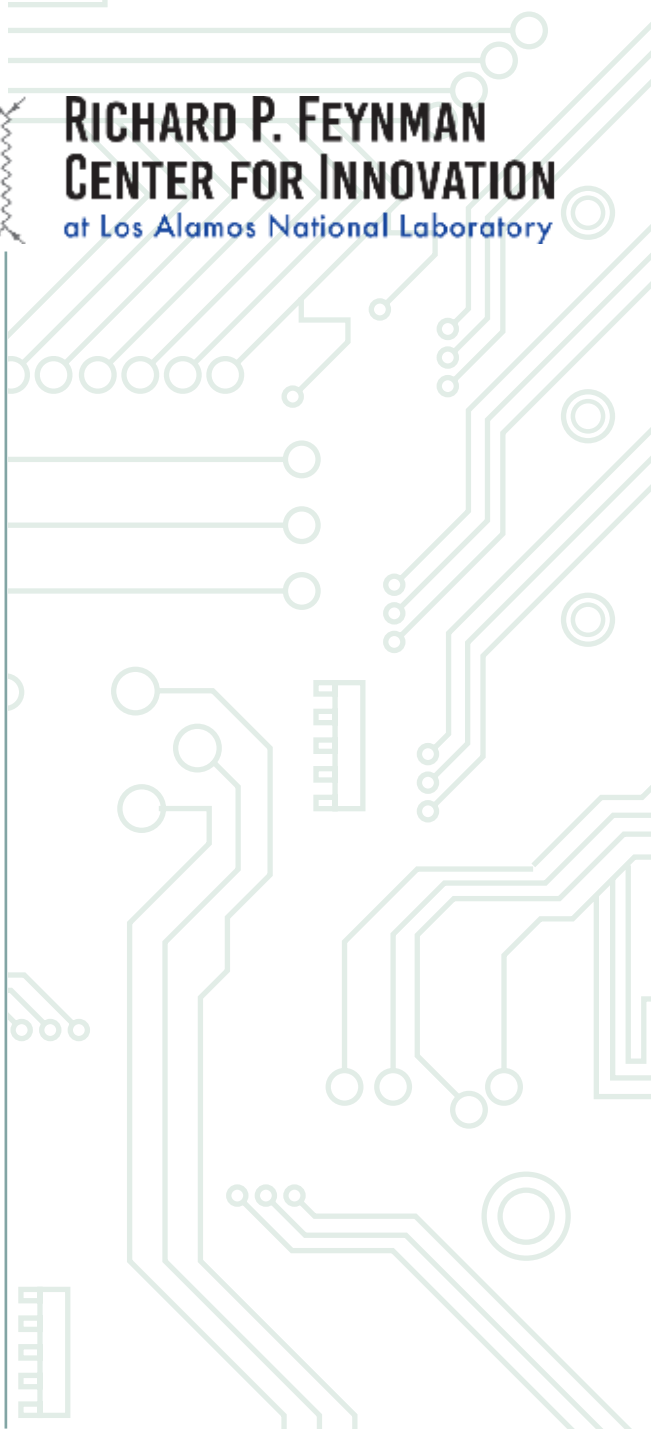




RICHARD P. FEYNMAN CENTER FOR INNOVATION

at Los Alamos National Laboratory



Innovation @ Los Alamos National Laboratory

INFORMATION & GUIDE

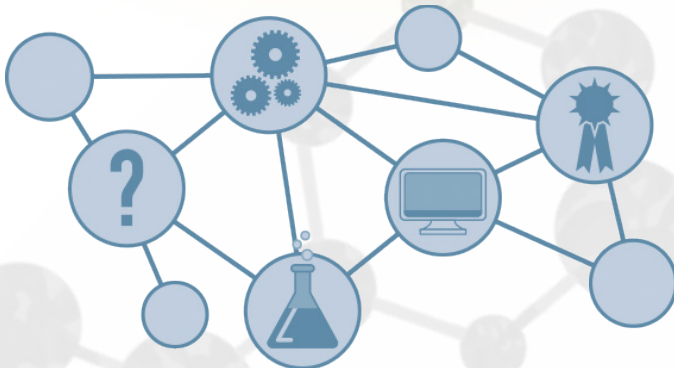
Perspectives

From its inception, Los Alamos has relied on meaningful engagements with academia, national laboratories, and industrial partners as a means to meet its mission. In the modern context, this reliance on partnering, and more specifically on being a trusted and valuable partner, has taken on a new significance. Today, through the Richard P. Feynman Center for Innovation (Feynman Center), the Laboratory is actively working to build and expand a network of the most innovative institutions in the world. We are doing this to access the best ideas and the brightest minds. Our network helps the Laboratory excel in a technical landscape that is increasingly complicated and moving more rapidly than ever before. The Feynman center also pursues partnerships that play a meaningful role in The Laboratory's ability to meet mission, acknowledging that no single entity can address the nation's national security challenges on its own. Los Alamos' success relies on our ability to be a great partner.

OBJECTIVES

The Feynman Center is supporting Los Alamos to accelerate innovation by focusing on:

- executing current missions;
- helping to establish a strategic and balanced portfolio of program sponsors;
- contributing to stable and evolving capabilities;
- recognizing and enabling staff innovation;
- supporting deliberate partnering strategies;
- enhancing Los Alamos' reputation and impact; and
- promoting regional and national economic development.



CHALLENGES AND REWARDS

- The U.S. technology advantage in national security is tied to our ability to innovate. Los Alamos must understand and participate in diverse methods of innovation.
- Innovation requires the transition of ideas through deployment of solutions. One of the key paths to achieve this is through strategic partnerships with industry leveraging the core mission.
- Los Alamos must improve and demonstrate value to the customer.
- Creating valuable intellectual property is essential for innovation. It brings vitality to the Laboratory and inspires those who work here.
- The ability to move at the speed of business (timely, fair, and valuable transactions driven by an innovation strategy) is essential to succeed as a modern R&D enterprise.
- Success in innovation requires engagement from -- and delivers value to -- sponsors, inventors, and technical organizations.
- The Laboratory's sponsors and partners tell the most powerful stories about success in innovation, driving public awareness of Los Alamos, its people, and its capabilities.

HOW DO WE MEASURE SUCCESS?

The success of "innovation" cannot be completely quantified in terms of metrics. Through the Feynman Center, the Laboratory emphasizes "mission-focused" technology transition, such as:

- Supporting the creation of intellectual property to convert new ideas into solutions to meet the challenges of the Laboratory's national security mission objectives and support U.S. industry development in an ever-changing global marketplace.
- Leveraging of industrial partnerships that deploys innovative technology to provide real-time agility and resilience against national security threats.
- Enhancing regional economic development by providing technical assistance to New Mexico small businesses that enhances Laboratory capabilities and new job creation to strengthen the New Mexico high-tech ecosystem.

Innovating Requires Identifying Moving Through Them Systematic



IDEA

Understand the process to begin transitioning technology and how to engage



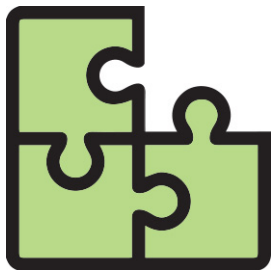
EVALUATE

Determine future customers and understand the market landscape

Market & Customers	Build awareness of the various ways a technology can be transitioned into the marketplace	Define target users and identify unmet needs by learning the strategic interests, needs, and constraints of target industry and licensees
Technology	<p>Begin exploring the steps necessary to advance research or idea</p> <p>Understand the process for disclosing the intellectual property</p>	Identify spectrum of ways the technology can address the needs of the market place
Programs & Partnerships	<p>Understand Los Alamos' policies on Conflict of Interest</p> <p>Los Alamos Staff begins interaction with Feynman Center Business Development Staff</p> <p>Los Alamos Staff participates in LaunchPad to develop a value proposition to begin technology validation</p>	<p>Los Alamos Staff identifies go-to-market strategy with Feynman Center</p> <p>Los Alamos Staff engages in customer discovery through LaunchPad programs</p> <p>Identify potential partners or licensees to evaluate agreement types & funding mechanisms to mature the technology</p>

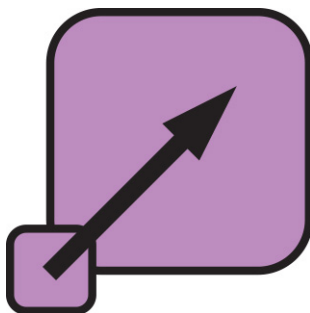
The Problems That Matter And How To Deliver Elegant Solutions

Ten Types of Innovation – Larry Keeley



PURSUE

Build a minimum viable product (prototype) to test demand and refine business model



SCALE

Execute using lean manufacturing to begin delivering value

Define value proposition or differentiating benefits in a way that appeals to a licensee or industry partner

Identify critical value drivers and capabilities

Launch a basic version of the offering to address the needs of target users

Launch an offering to validate technology in the market place

Los Alamos staff applies for technology maturation funding (e.g.PathFinder, Technology Commercialization Fund)

Los Alamos Staff applies for Entrepreneurial Leave of Absence if ready to start a company

Potential partner to license technology

Potential partner applies for seed funding (Venture Acceleration Fund)

Potential partner engages in a partnering agreement to mature product (Small Business Voucher, SBIR/STTR)

Potential partner engages in technical assistance project with Los Alamos Staff (NM Small Business Assistance Program)

**Derived from UChicago Innovation Pathway, The Polsky Center/UChicago Tech*

Non-Disclosure Agreements

A Non-Disclosure Agreement (NDA) protects the disclosure of proprietary information provided by one party to another party. This agreement is used to cover proprietary discussions between Los Alamos and a potential industrial partner on specific technical details.

NDA's are a type of agreement to exchange technology information and sensitive business information. During initial discussions between Los Alamos and our partners, an NDA isn't necessary. Only when the relationship develops and enabling technology discussions begin, where patent protection hasn't occurred yet, is an NDA required. Other issues that need to be taken into consideration are:

- No work may be performed under an NDA; and
- No intellectual property should be generated under an NDA.

Contact: nda@lanl.gov

Intellectual Property

The creation and leverage of intellectual property is an increasingly important means for Los Alamos to fulfill its national security missions. We patent and copyright to protect the United States Government rights, enable the transition of technologies into the marketplace, and support our inventor community as they engage in academic, national laboratory, and industrial collaborations.

Los Alamos intellectual property identifies areas that are potentially transformative technologies in both government and commercial sectors. The innovation assets available to our industry partners include the ideas, knowledge, skills and experience of our people.

It is critical to position the use of intellectual property to strengthen Los Alamos and its customers. The Laboratory's approach to intellectual property includes:

- Balancing the commercial application of intellectual property with the Laboratory's scientific and programmatic objectives;
- Transitioning the intellectual property from Los Alamos to the marketplace to ultimately benefit the U.S. taxpayer; and
- Recognizing researchers through intellectual property.

Contact: fcip@lanl.gov

Licensing Technology

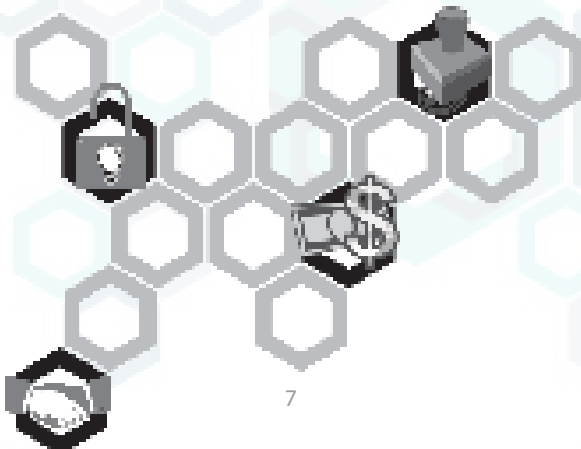
The primary function of the Feynman Center Licensing Program is to move Los Alamos technology to the marketplace for the benefit of the U.S. economy. Los Alamos' intellectual property may be licensed for commercial use research applications, and U.S. government use. Although the primary mission is national security, technologies often have multiple applications in industrial and consumer markets. Los Alamos issues licenses to various entities ranging from start-ups to multinational companies.

Los Alamos seeks fair and equitable return to the Laboratory without impeding the Licensee's ability to successfully commercialize the technology.

Royalty Income

Los Alamos is proud to have a royalty distribution policy that is among the most generous in the nation. Thirty five percent of all royalty income is shared directly with our inventors as a way to recognize their effort, and passion that is needed to successfully commercialize a Laboratory technology. While licensing revenue and the resulting royalty income are not the motivation for Los Alamos' commercialization activities, we are proud to include our inventors of licensed technology in the success that our program achieves.

Contact: licensing@lanl.gov



Agreements

Cooperative Research and Development

Los Alamos facilitates partnerships with industry, academia, and research institutions through Cooperative Research and Development Agreements (CRADAs). The fastest growing sector of the Los Alamos CRADA portfolio is directly related to collaborating with industry partners to meet mission needs across a wide range of government customers.

Los Alamos is at its best when we collaborate on difficult technical problems. The ability to bring value to both sides of the partnership, for multiple projects, over many years, and spanning different parts of each organization, have been the hallmarks of our most successful partnerships.

A CRADA allows Los Alamos and its partners to work together to optimize their resources, leverage technical expertise and capabilities, and generate intellectual property emerging from the collaboration. Outcomes from the CRADA are designed to facilitate commercialization and accelerate the CRADA partner's ability to impact its industry.

The Laboratory has nearly 100 active CRADA's and puts a strong emphasis on this part of the agreement portfolio. Some of the nations most recognized, and impactful public-private partnerships have been with Los Alamos CRADA's.

Contact: fci-crada@lanl.gov



Los Alamos is at its best when U.S. Industry brings us their toughest problems, and allows us to find creative and valuable solutions through true partnership.

Strategic Partnership Projects

Los Alamos scientists and engineers conduct basic research across a wide range of scientific areas to support our national security mission. Many of the Laboratory's technologies, processes, scientific capabilities, and special technical expertise can be applied to solve problems for large and small businesses, local and state governments, universities, and non-profit organizations. This is done through mutually beneficial Strategic Partnership Projects (SPP). This reimbursable work is full-cost recovery of Laboratory expenditures incurred as a result of performing contracted work.

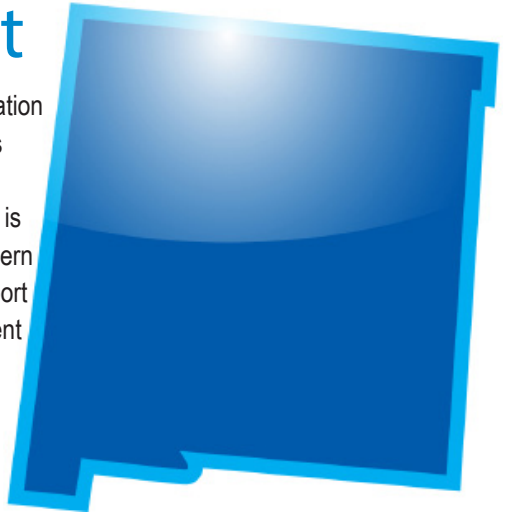
Contact: fci-nfe@lanl.gov



SPPs enable access to the Laboratory's scientific capabilities, specialized instrumentation, and facilities for defined scopes of work.

Regional Economic Development

The Feynman Center facilitates the creation and growth of businesses based on Los Alamos technologies, capabilities and expertise. The emphasis on this activity is to create and retain businesses in northern New Mexico. The programs below support companies in every stage of development through access to technology, technical assistance, education and investment, and help strengthen the high-tech regional ecosystem.



NEW MEXICO SMALL BUSINESS ASSISTANCE (NMSBA) PROGRAM

The New Mexico Small Business Assistance (NMSBA) Program allows New Mexico small businesses facing a technical challenge to access the unique expertise and capabilities of Los Alamos and Sandia national laboratories. In partnership with the state of New Mexico and at no cost to the business, small businesses with a technical challenge can seek assistance from lab scientists or engineers for projects that require testing, design consultation, and access to special equipment or facilities.

Contact: nmsba@lanl.gov

VENTURE ACCELERATION FUND (VAF)

The Venture Acceleration Fund is a collaborative investment founded by Los Alamos National Security, LLC (LANS) in 2006. This year LANS, along with Los Alamos County, New Mexico Manufacturing Extension Partnership, Santa Fe County, and the City of Santa Fe are investing to improve the economy of Northern New Mexico by providing a unique source of funding to companies who are on track to add jobs, grow revenues, or attract follow-on investment. The fund is administered by the non-profit Regional Development Corporation.

Contact: vaf@lanl.gov



Los Alamos LaunchPad

Los Alamos LaunchPad is a set of initiatives to inspire and support R&D scientists and engineers in learning about innovation and entrepreneurial approaches.

This suite of programs promotes critical thinking and innovation, to help Los Alamos staff thrive at the intersection between basic science and applied technology, and between federal sponsors and private sector partners.



DisrupTECH

DisrupTECH is a series of coaching activities by industry experts to provide targeted guidance for scientists and engineers to polish their presentation by refining their product definition, gaining investor perspective, and honing their pitch.

Lab Accelerator

Lab Accelerator is a collaborative Laboratory effort to move technologies to market by helping scientists understand and interact with industry. Laboratory scientists and engineers learn the skills that help make their technologies more appealing and better positioned for market success and profitable for investors.

UC/Los Alamos Entrepreneurial Postdoctoral Fellowship

UC/Los Alamos Entrepreneurial Postdoctoral Fellowship is for postdoctoral researchers to gain skills in entrepreneurship and commercializing technology as part of their postdoctoral experience. This pilot will incorporate training and mentoring during an initial finalist period, culminating, for successful finalists, in a focused 6-month Fellowship aimed at creating a new business in Northern New Mexico.

Energy I-Corps

Energy I-Corps is a Department of Energy program that provides entrepreneurial education to national laboratory researchers and connects them to potential customers and industry partners. The goal is to accelerate the transfer of technologies from national laboratories into the commercial marketplace.



Contact: launchpad@lanl.gov



FCI

Richard P. Feynman
Center For Innovation

FCI contact information:

Phone: 505.665.9090

Email: feynmancenter@lanl.gov

Websites:

External: www.lanl.gov/feynmancenter

Internal: fci.lanl.gov