Discovering Market Pathways for National Laboratory Research

The U.S. Department of Energy (DOE) Lab-Corps program is a specialized training curriculum aimed at accelerating the transfer of clean energy technologies from national laboratories into the commercial marketplace. Lab-Corps provides entrepreneurial education to national laboratory researchers and connects them to potential customers and industry partners, helping to close the knowledge gap between researchers and the marketplace.

As part of Technology-to-Market's Lab Impact activities, Lab-Corps is focused on fostering collaboration between the national laboratories and the private sector. The proven training methods implemented during the two month program provide scientists with a better understanding of the commercialization process. Lab-Corps is managed by DOE's National Renewable Energy Laboratory (NREL). NREL leads program efforts, supporting the following national laboratory teams:

- Argonne National Laboratory
- Fermi National Accelerator Laboratory
- Idaho National Laboratory
- Lawrence Berkeley National Laboratory
- Lawrence Livermore National Laboratory
- Los Alamos National Laboratory
- National Renewable Energy Laboratory
- Oak Ridge National Laboratory
- Pacific Northwest National Laboratory
- Sandia National Laboratories

These laboratories have assembled entrepreneurial teams to identify private sector opportunities for commercializing promising sustainable transportation, renewable power, and energy efficiency technologies. Each Lab-Corps team receives comprehensive training and access to a suite of commercialization resources.

National laboratory researchers analyze their customers' value chains alongside industry experts. This is just one of many hands-on activities Lab-Corps participants complete with support from industry mentors and instructors from the clean energy sector. *Photo credit NREL.*

Lab-Corps Quick Facts

What is Lab-Corps?

Lab-Corps is an entrepreneurial training program for national laboratory researchers. 10 national laboratories assemble and train teams to identify private sector opportunities for commercializing their clean energy technologies.

How many teams have gone through the training program?

A total of 50 teams from across 10 national laboratories will have participated in Lab-Corps by December 2016.

What are the benefits?

Participating teams benefit not only from classes taught by experts, but also from more than 75 customer interviews with potential end users of the technologies.

Who can participate?

DOE national laboratory researchers that meet the eligibility requirements are welcome to apply.

How can I learn more?

Contact lab-corps@NREL.gov.

Photo credit NREL.

Lab-Corps Teams Have Explored an Array of Market Opportunities Based on Lab Research

- Unmanned aerial vehicle inspections of wind turbines
- Optimized control technology for building efficiency
- Scalable nanostructured coatings for energy-efficient windows
- Envelope recladding technology
- Photobioreactor co-culture platform
- Real-time control of physical vapor deposition sources for thin films
- Mini-split modular air conditioning solutions
- Network interchange forecasting in the power grid
- Flame design for near-zero emission combustion of natural gas
- Sound waves to identify building envelope leaks
- Solar thermochemical production of fuels
- Forward osmosis for water desalination
- Zero touch audit software for building efficiency
- Wind system modeling software toolset

Customized Curriculum

Using a customized version of the National Science Foundation's Innovation Corps (I-Corps) program curriculum, Lab-Corps is a 7-week entrepreneurial boot camp—a "cohort" run by NREL—that includes in-person sessions and weekly webinars to help each team learn how to evaluate the market potential of their technologies and bring a new level of entrepreneurial education back to their research and colleagues.

Each Lab-Corps cohort is made up of up to 14 teams, including at least one technical expert, an entrepreneurial lead, and an industry mentor. Over the course of two intensive months, each team participates in a variety of interactive workshops and market discovery activities that are designed to advance their entrepreneurial knowledge and map out potential paths toward commercialization.

Leading minds from the entrepreneurial world and venture capital industry serve as instructors, imparting knowledge through lectures, assisting teams in crafting customer value propositions, identifying customer segments, understanding supply chains, and developing viable business plans.

DOE's national laboratories have unique and specific capabilities that make the United States a leader in developing new solutions to the world's most challenging problems. Arming the scientists who work at these laboratories with business development and customer engagement skills means their innovative technologies reach the marketplace faster and keep the United States at the forefront of the clean energy race.

The Lab-Corps curriculum emphasizes interactive market and customer discovery. Each team conducts approximately 75-100 interviews with potential customers to better understand market needs and help shape their technologies and product development plans to meet real-world commercial needs.

About Technology-to-Market

The Office of Energy Efficiency and Renewable Energy's Technology-to-Market program supports America's leading clean energy innovators and businesses by identifying and addressing commercialization challenges—enabling them to competitively develop, demonstrate, and deploy cutting-edge technologies. ■

U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy
TECHNOLOGY-TO-MARKET PROGRAM

For more information, visit: energy.gov/eere/technology-to-market/lab-corps
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