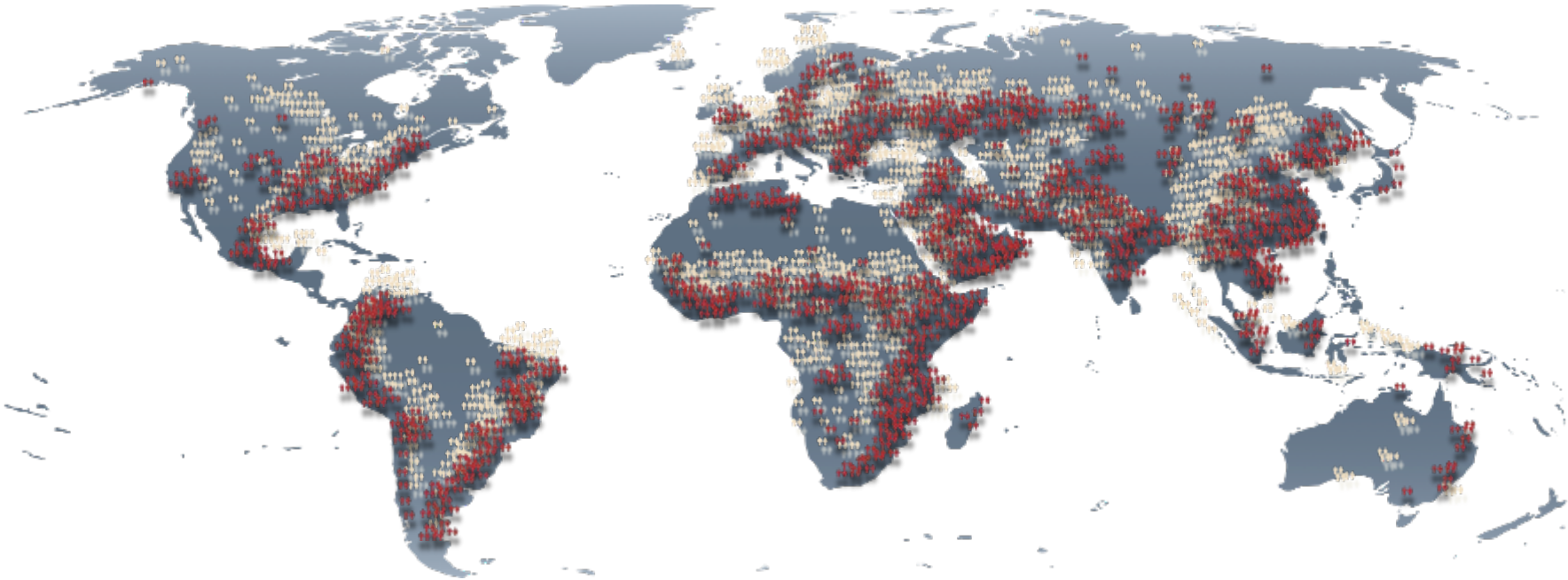


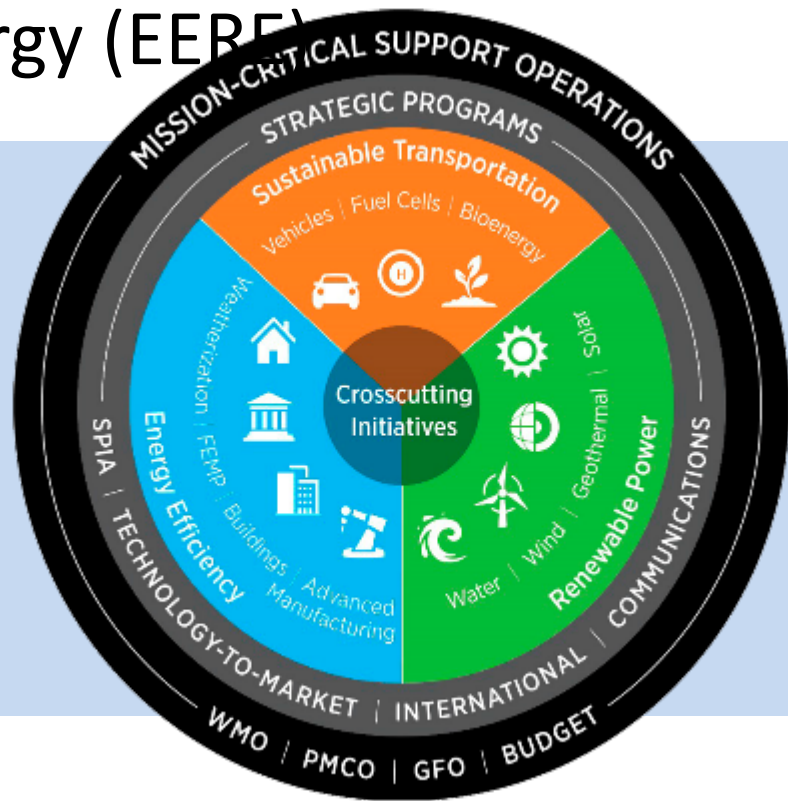
Energy & Climate – Megatrend of the Century



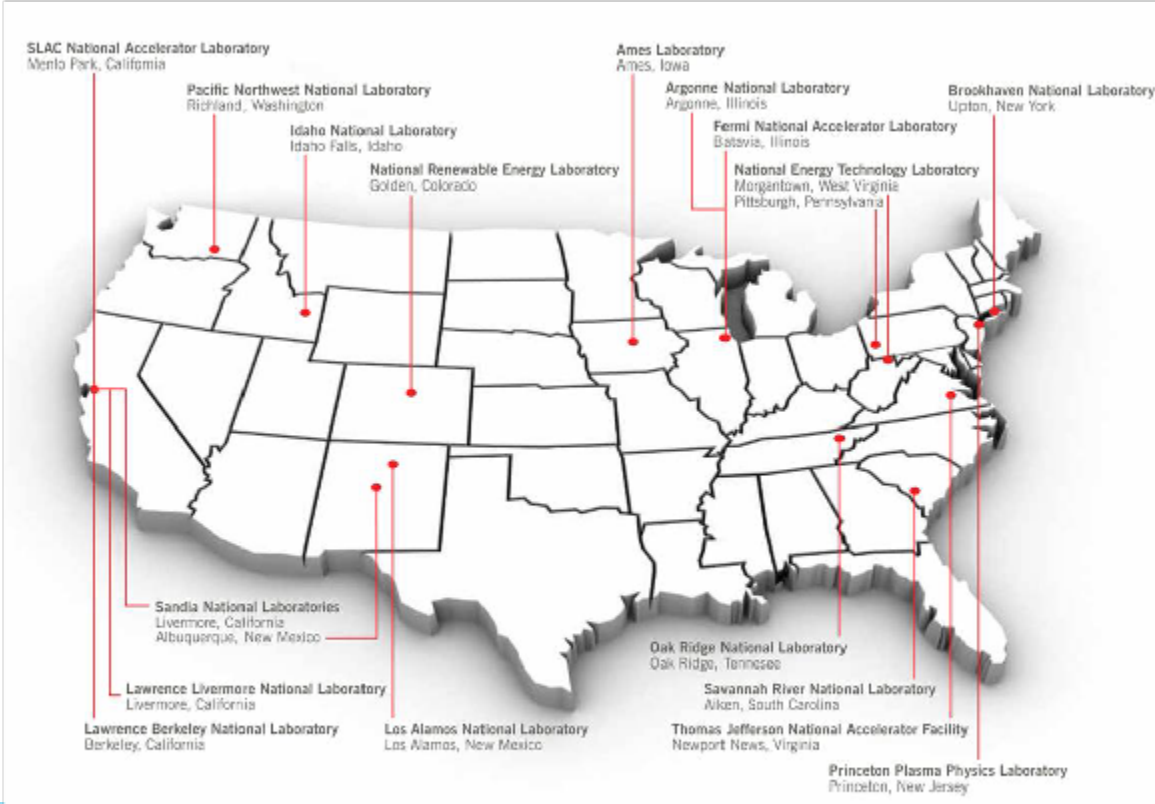
DOE's Office of Energy Efficiency & Renewable Energy (EERE)

World's Largest Government Funder of
Clean Energy Innovation

\$2B/year, \$700M/year with Labs



DOE's National Labs – An Unrivaled Competitive Advantage



EERE Lab Impact Initiative – Jan 2014 Launch

GOAL:

Double industrial engagement and commercial impact of EERE's work with the National Labs in 4 Years (2017)



Today's Very Simple Goal:

**Create a Large Number of
New Funded Lab-Industry
Partnerships
(aka "Hug a Lab")**

EERE-National Lab Guiding Principles

- 1.) World-Class Science and Technology
- 2.) Long-Term Commitment and Stewardship
- 3.) Mutual Respect and Accountability
- 4.) Industry and Market Impact

EERE-Labs-Industry: A New Approach

- Significant Increase in Industry Partnerships
- Defined Lab Core Capabilities: 10+ year commitment
- Critical Mass: Doubled avg project size to \$3M, 3+ years
- Major Multi-Lab R&D Consortia with Industry (14+ new)
- External Merit Review of All Lab Project Proposals
- Manage for Results: 80% Reduction in milestones count, emphasize the right goals, annual go-no gos

New Lab-Industry Consortium Models

- Grid Modernization Laboratory Consortium (NREL/PNNL)
- Manufacturing Demonstration Facilities
 - 3D Printing (ORNL), HPC4MFG (LLNL), SynBio Foundry? (LBNL)
- Energy Materials Network
 - LighMAT (PNNL), ElectroCAT (LANL, ANL), CaloriCool (Ames), Durable Solar Module Mats (TBD)
- SMART Mobility, Co-Optima, Batt500, and many more

Lab Impact: Innovation Ecosystem (>1%)

cyclotronroad



Small Business Vouchers Pilot
U.S. DEPARTMENT OF ENERGY



LAB-CORPS



TECHNOLOGIST
IN RESIDENCE

cyclotronroad



A runway to get started



BERKELEY LAB

World class R&D support



Networks and culture



Lab-Corps

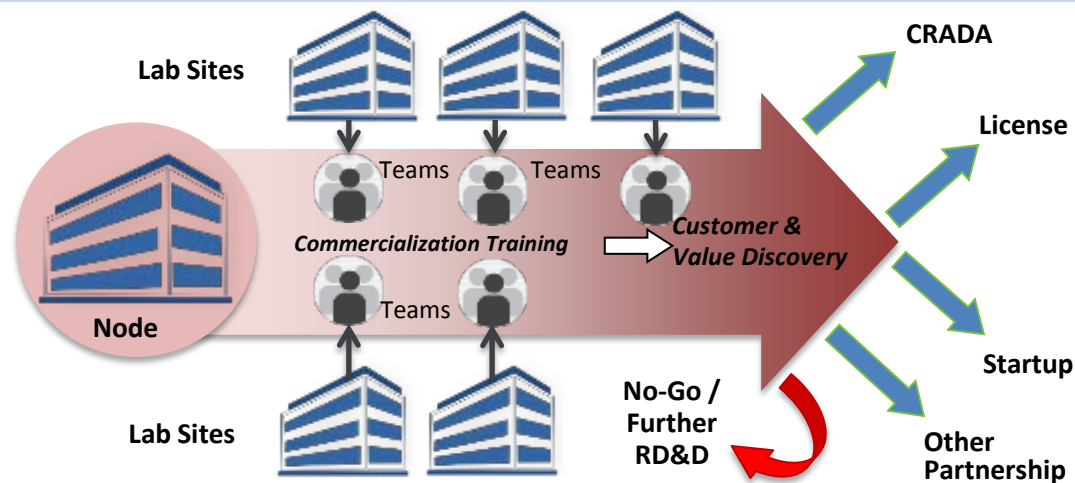
The **Lab-Corps program** is a specialized 7-week training curriculum aimed at transforming the Lab-culture & accelerating the transfer of clean energy technologies from national laboratories into the commercial marketplace.

“What we thought we knew was wrong.”

– *Lab-Corps graduate*

“I’ve spent 29 years in the lab and I thought I was close to industry. I learned more in the last 6 weeks than in those 29 years.”

– *Lab-Corps graduate*



Small Business Vouchers

The DOE **Small Business Vouchers (SBV) Pilot** provides U.S. small businesses with unparalleled access to the expertise and facilities of its national laboratories.

Fund high-impact work at the Labs for small business, simple application, favorable IP, fast

Round 1 completed:

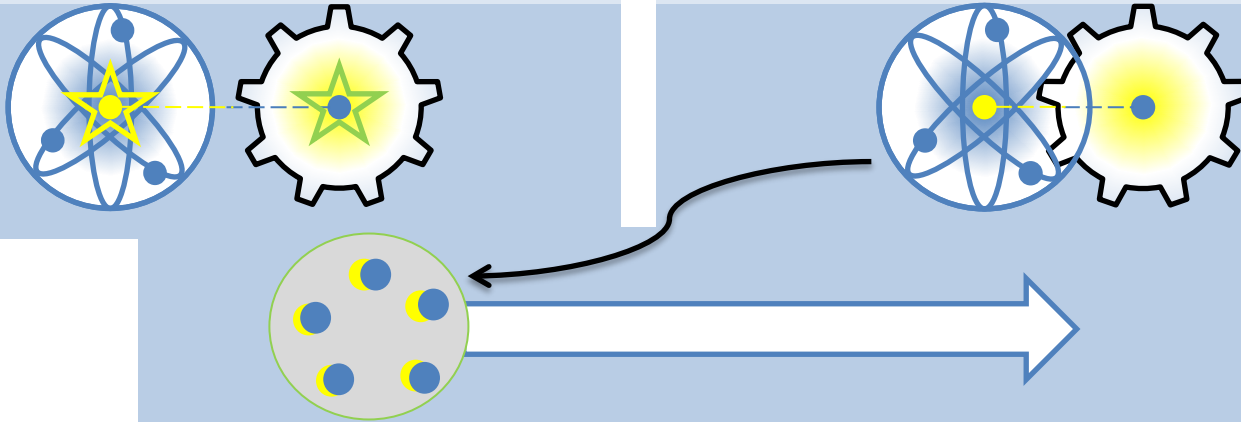
- 400+ applications – 33 small businesses selected for round 1
- ~40% working with labs for the first time















Technologist-in-Residence Program

Senior Technologists are identified within a National Lab and a manufacturing company. The Technologists work together...

...to identify new areas of collaborative research between the company and the Lab, and formulate an 'Umbrella Agreement' and specific scopes of work.



Through the Council of Technologists, pilot participants will work together to provide insight into all of the participating laboratories, and to provide feedback to DOE about the most effective process.

PARTNERSHIPS	TECHNOLOGY AREA OF FOCUS
 	Microturbines for Combined Heat and Power Applications
 	Development of innovative manufacturable processes, materials, and equipment for advanced sensors and other future high tech products
 	Range Extended EVs
 	Additive Manufacturing (metallic structures, development of new alloys)
 	Sustainable Manufacturing – reduce environmental impact of manufacturing at P&G, addressing urgent issues of waste, water, energy, and transportation
 	Sustainable Data Centers

Announcing Today

TIR 2.0

\$2.3M available to support 5 new Lab-
Industry Technologist Pairs

Promising Early Results in Year 1 – Lab Wide

Doubling in 4 years = 19% CAGR

Year 1 (FY14):

- **27%** increase in new CRADA's
- **22%** increase in new Lab patent applications
- **13%** increase in active licenses of Lab IP

But we still have a LOT of work to do....

...so I challenge you to leave today with one
or more actionable new partnership ideas
and start executing TOMORROW

U.S. DEPARTMENT OF
ENERGY

Energy Efficiency &
Renewable Energy

