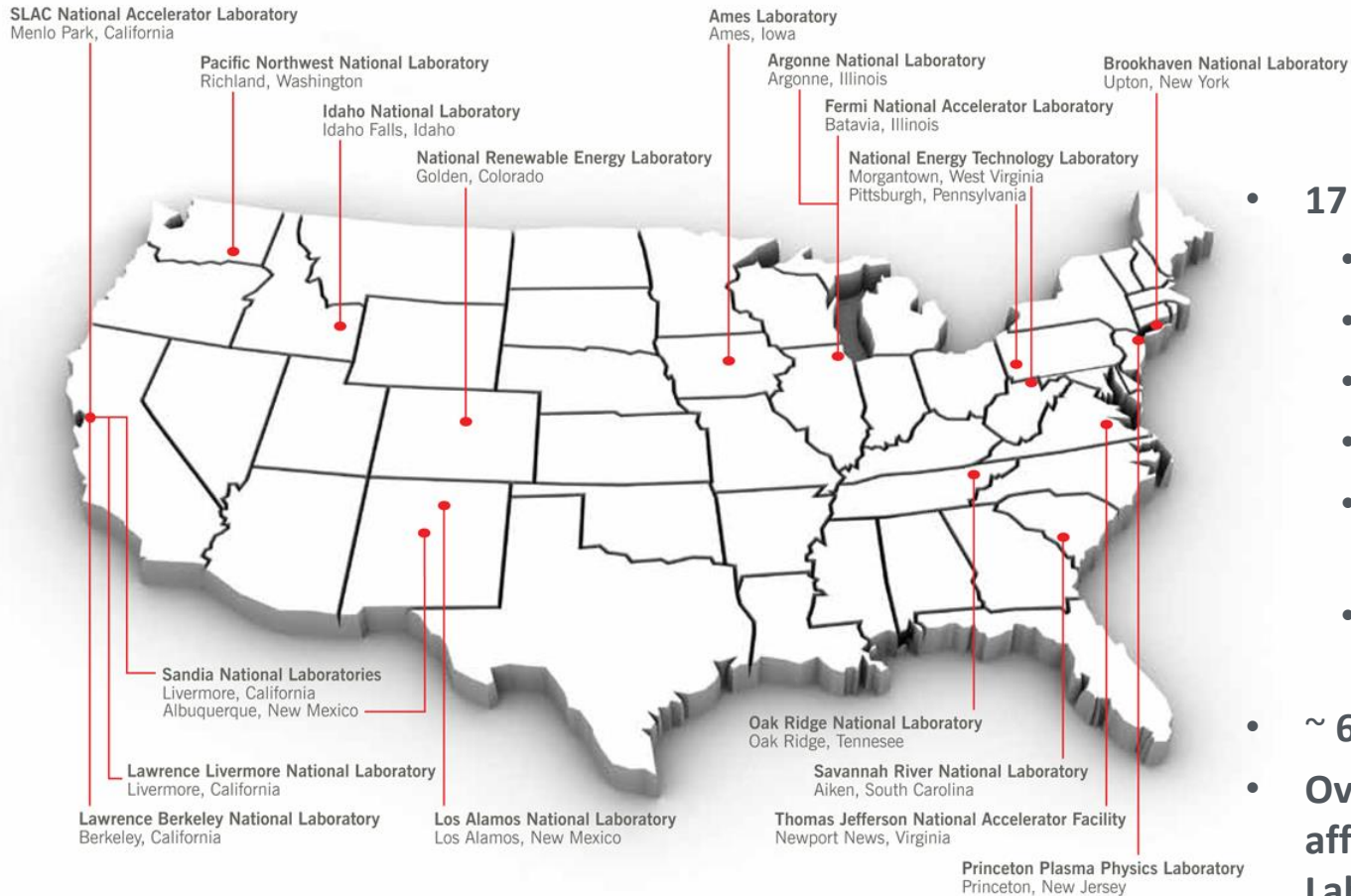


EERE National Laboratory Impact Initiative: Small Business Vouchers Pilot

March, 2015

DOE Labs: A Reservoir of Talent for Science and Technology



- **17 National Laboratories**
 - 10 in Office of Science
 - 3 in NNSA
 - 1 in Nuclear Energy
 - 1 in Fossil Energy
 - 1 in Energy Efficiency and Renewable Energy
 - 1 in Environmental Management
- **~ 66,000 Total Employees**
- **Over 50 Nobel laureates affiliated with DOE National Laboratories**

Graphic courtesy of "A Decade of Discovery" DOE. 2008



EERE Lab Impact Initiative

Mission: significantly increase the industrial impact of DOE national labs on the U.S. clean energy sector!

- Increase and **enhance lab-private sector relationships**
- Increase and **streamline access to national lab** capabilities
- **Demonstrate** the **value** of lab-developed **science and technology**

Coordination of Multiple Components

DOE Activity

Coordination on Policy

- Entrepreneur Leave Policy
- PEMP Incentives
- User Facilities: Evaluate models
- Work for Others

EERE Activity

EERE Lab Approach

- AOP Impact Guidance
- Technology-to-Market Activity Plans
- T2M Criteria in Peer Review

Pilots

- **SB Vouchers**
- Technologists in Residence
- Lab-Corps

Increased Industrial Impact

Small Businesses Are Innovation Engines



FACTS ABOUT U.S. SMALL BUSINESSES*

- 46% of nonfarm GDP
- 64% of net new job creation
- 16 times more patents per employee

**Data from Small Business & Entrepreneurship Council
<http://www.sbecouncil.org/about-us/facts-and-data>*

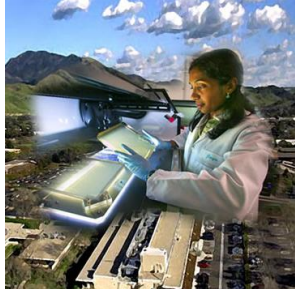
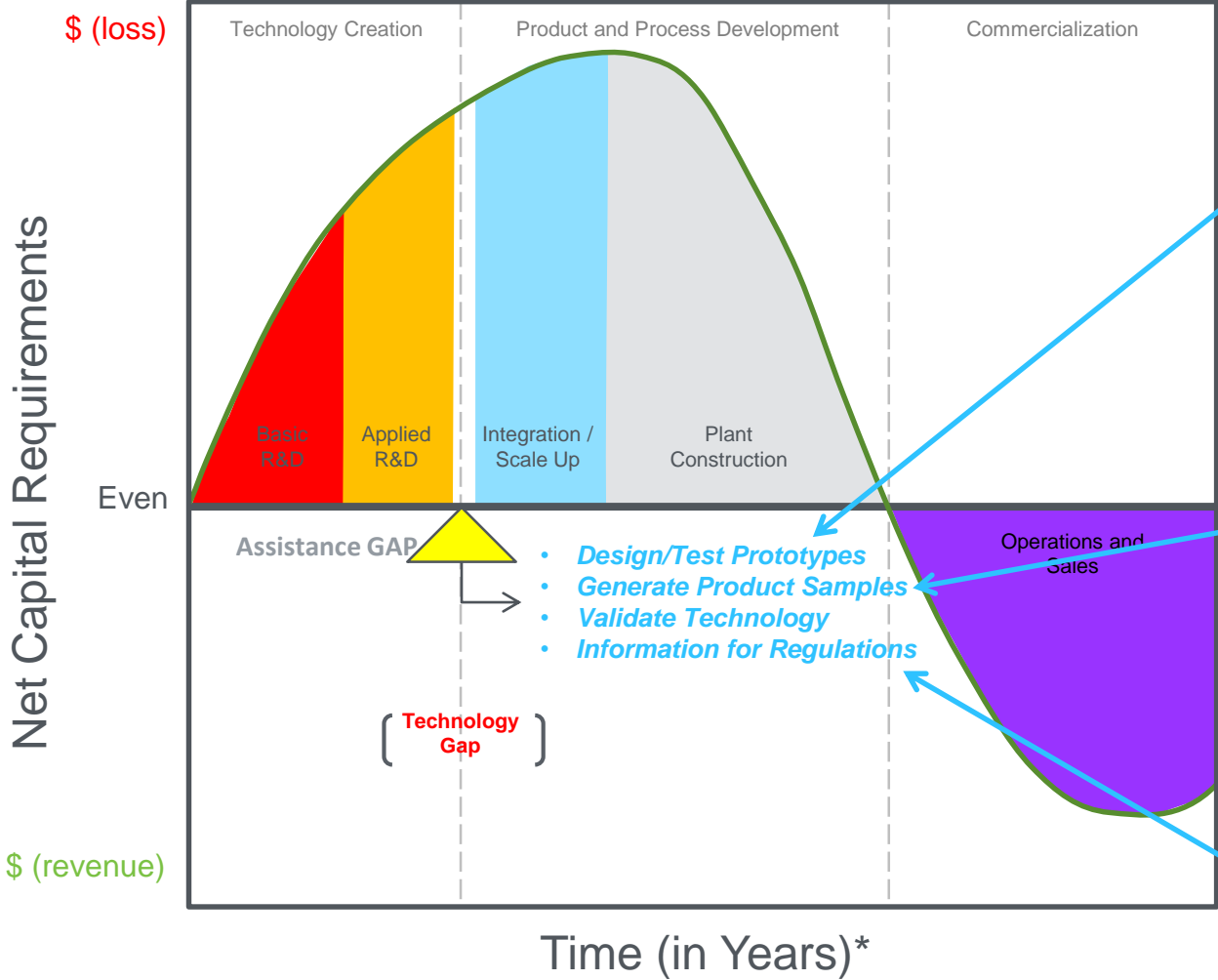


TECHNICAL NEEDS OF U.S. CLEAN-TECH SMALL BUSINESSES*

- Unique Materials
- Prototyping
- Technology Testing / Validation
- Modeling and Analyses
- Engineering Designs
- Scale-up of Samples/Processes

**State Energy Advisory Board suggestions (unpublished personal communications)*

Assistance and Funding Gaps



Nanotechnology for Li Battery (with LBNL)



Cobalt Bioprocess Scale UP (with NREL)



GTO LEAMS III Separator (with Sandia)

Existing Tech Assistance Program (\$10-\$40K)

Funding GAP

Joint Applications to FOAs (> \$1M)

Small Business Voucher (\$50-\$300K)

*Adapted from the NRC Report "An Assessment of SBIR", 2008

1

Relevance of Capabilities

2

Industry Awareness of Capabilities



3

Strong, Trusting Long-Term Relationships

4

Ease and Affordability of Access to Capabilities



5

Lab Culture, Policies Related to Commercial Impact

- Entrepreneurial/commercial impact culture & policies
- Vectors for taking ideas into commercialization (postdocs, entrepreneur leave)
- Sense of urgency

SBV Pilot Summary

Goals:

- Increase small business accessibility to lab capabilities
- Broaden lab awareness of small business needs and technologies
- Encourage labs to develop outreach strategies to showcase capabilities
- Make lab business practices more compatible with private sector timelines

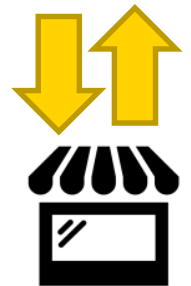
Successful precedents: PNNL, NREL and INL Technology and Commercialization Assistance Programs, NM Small Biz Assistance

Program Design:

- DOE lab call used to select 3-5 pilot labs to complete outreach, merit reviews, and to execute voucher work scopes
- Single one-stop shop IT platform with clear lab capabilities explained, uniform IP terms, and application process
- High Impact small businesses selected through lab announcements of voucher opportunities to fill assistance gap

Major Components:

- | | | |
|---------------|-------------------------------|--------------------------|
| ➤ Lab Call | ➤ Outreach and Communications | ➤ Voucher Work |
| ➤ IT Platform | ➤ Lab Infrastructure | ➤ Third Party Evaluation |

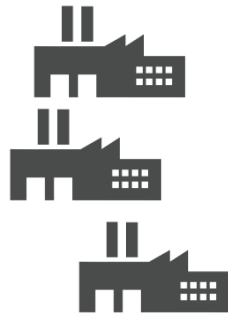


Model Overview

DOE
Issues
Lab Call



Best Lab
Proposals
Awarded



Labs
Conduct
Outreach



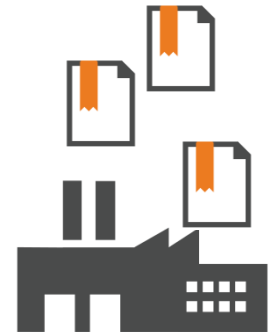
Labs & EERE
Issue
Voucher Call



Best
Small
Business
Proposals
Chosen



Voucher
Credit
Spent at
Labs



Third Party Impact Evaluation

- DOE establishes the criteria for the lab competition
- Pilot funding from FY15

- Best 3-5 lab proposals chosen by EERE Tech Offices and Lab Impact Team

- Labs create outreach materials
- Develop strategic partnerships (e.g. states, investors)

- Labs & EERE announce voucher availability
- SB send in proposals to a single IT platform

- Best SB's proposals chosen by merit review
- 2 or 3 rounds
- Funding Per SB: \$50-300K

- Lab and SB reach agreement on scope
- DOE approves scope of work

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