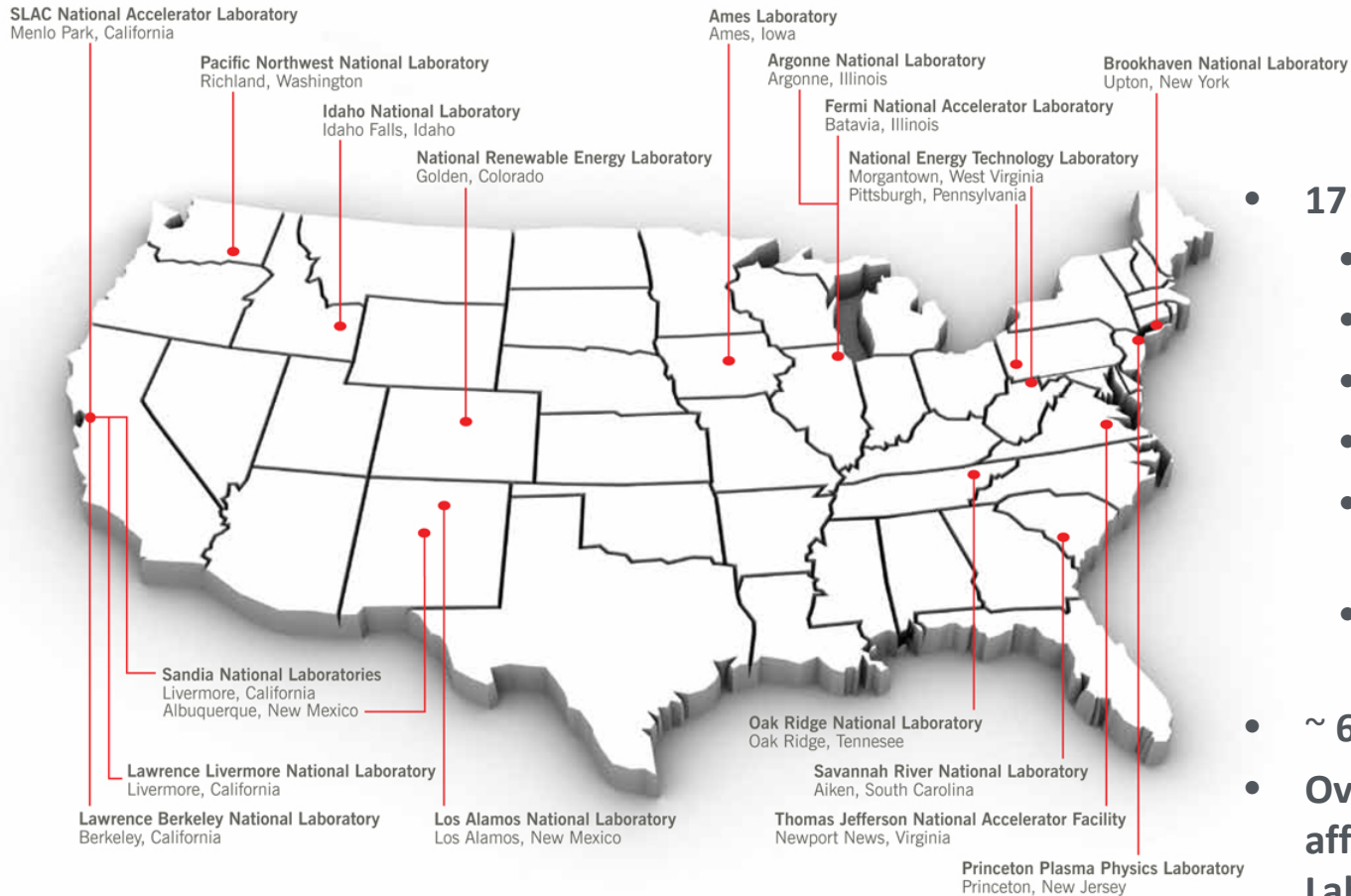


EERE National Laboratory Impact Initiative: Small Business Vouchers Pilot

As of July, 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**

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>*

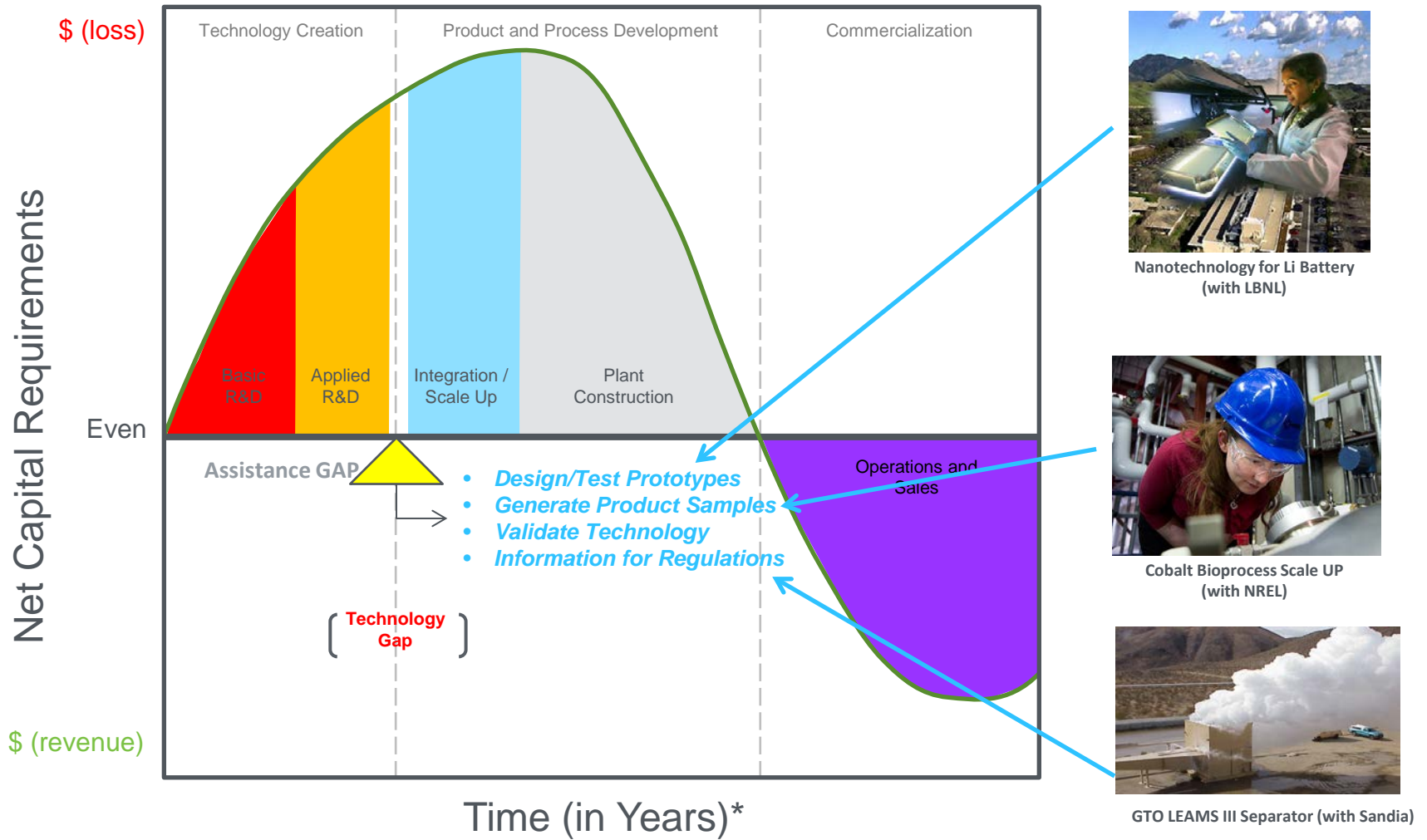


TECHNICAL NEEDS OF U.S. CLEAN-TECH SMALL BUSINESSES*

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**State Energy Advisory Board suggestions (unpublished personal communications)*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



*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

Funds: \$20M = ~100 small businesses served at ~\$175,000/entity

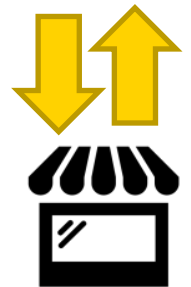
Successful precedents: PNNL, NREL and INL Technology and Commercialization Assistance Programs, NM Small Biz Assistance

Program Design:

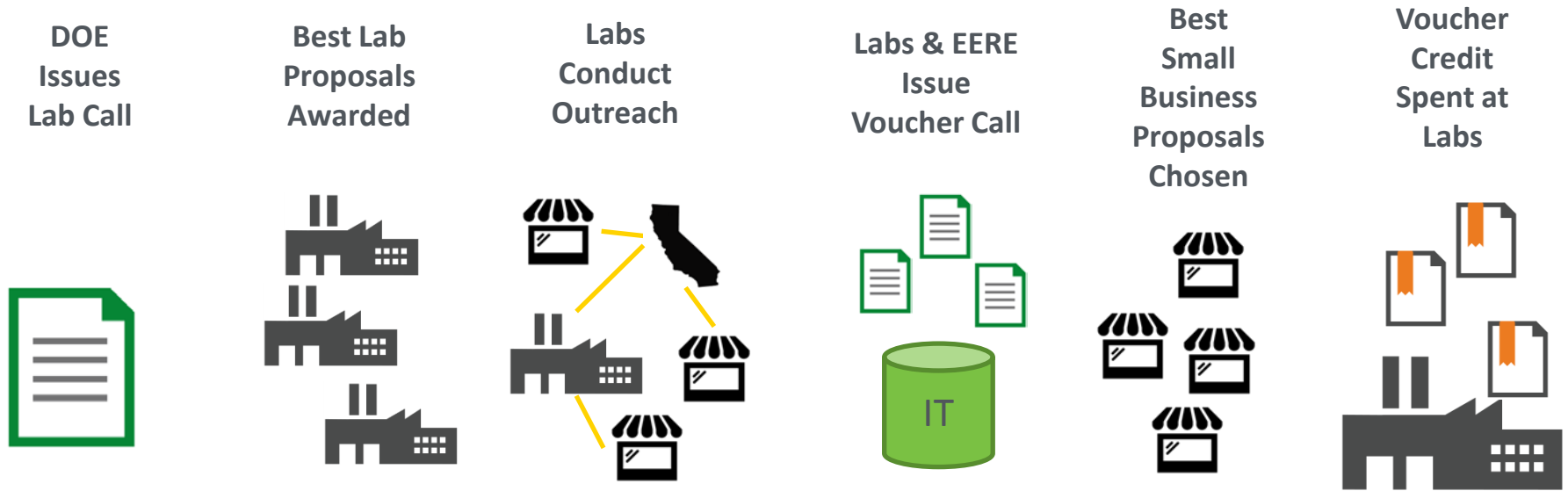
- DOE lab call used to select 3-5 pilot labs to complete outreach, merit reviews, and to execute voucher work scopes
- Single one-stop shop IT platform with clear lab capabilities explained, uniform IP terms, and application process
- High Impact small businesses selected through lab announcements of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

Major Components:

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



Model Overview



Third Party Impact Evaluation

- DOE establishes the criteria for the lab competition
- Pilot Funding from FY15 Holdback: **\$20M**
- Best 3-5 lab proposals chosen by EERE Tech Offices and Lab Impact Team
- Funding Per Lab: \$2.5-7.5M
- 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
- IT presort for mission
- 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

The IT Platform “Central Assistance Platform”:

- Posts critical information (Pilot description, outreach materials, links to labs and DOE, due dates, agreement templates)
- Accepts small business requests
- Automates initial mission-relevance screening
- Routes applications to the appropriate labs
- Communicates application status to small businesses

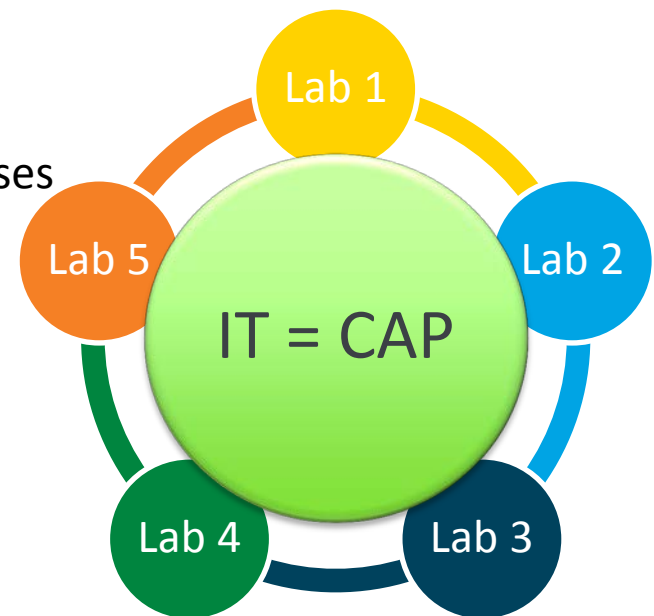
Who Will Do This: NREL

Purpose:

- Uniform application process;
- Exchange information

Why do we need it?

- Stakeholders, including small businesses, have identified a centralized application and “access” point as key to successful engagement.



Labs Implement Outreach and Inreach








1. Labs implement outreach program
 - Federal agency networks
 - States or regional networks
 - Investors, incubators networks
 - Technical networks
2. Small businesses learn of lab capabilities and SBV Pilot
3. Labs develop internal infrastructure
 - Application routing and merit reviewers
 - Technical specialist and specialized equipment/facilities identification once problem statements are received
 - Agreements specialists <-> DOE Site Office

SBV Pilot Announcements

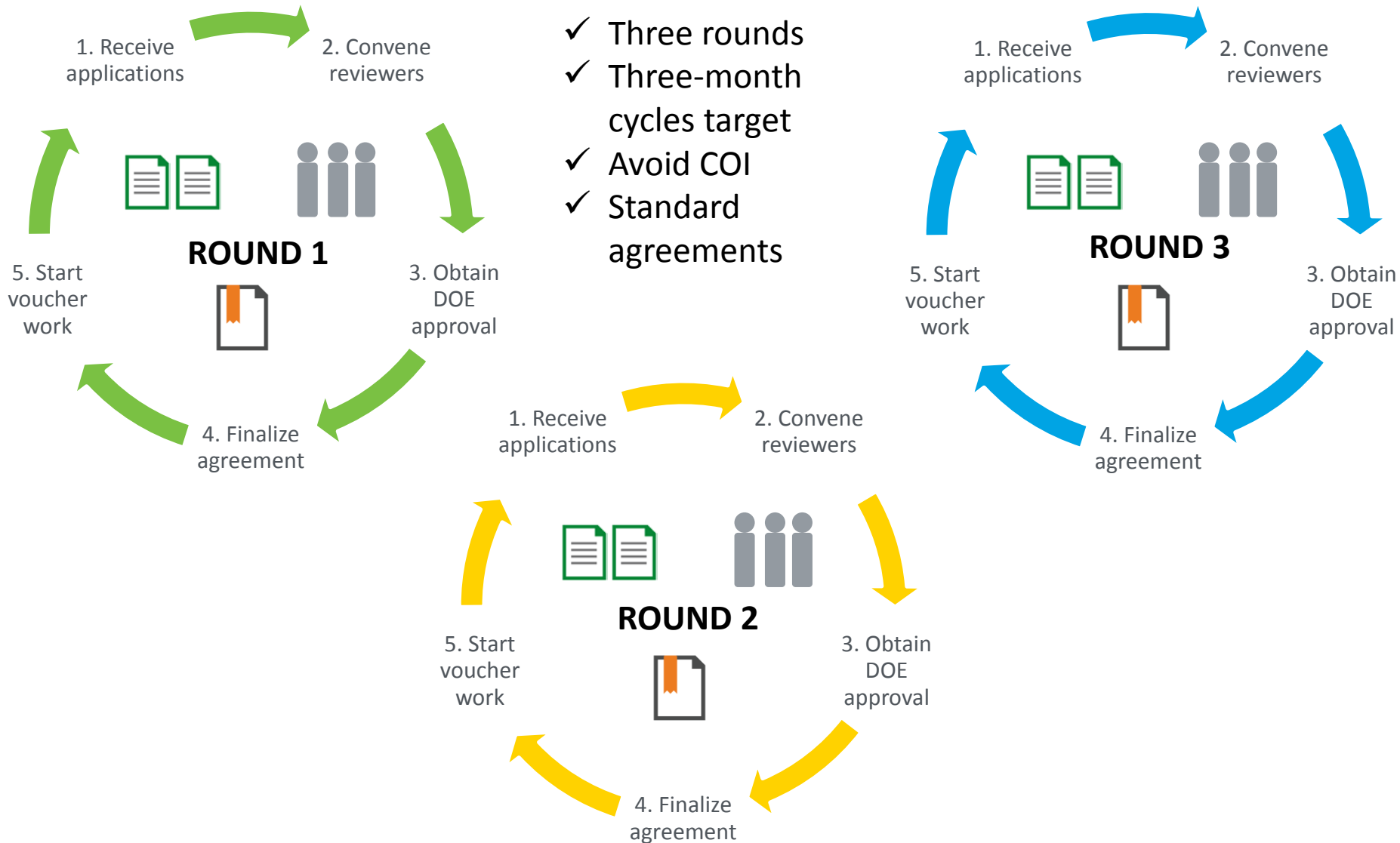
- Labs and DOE jointly announce the selection of lead labs
 - Target Date: July, 2015
- Labs and DOE jointly announce the opportunity to apply for the first round of Small Business Assistance Vouchers
 - Target Date: September, 2015
- Potential Federal Agency Partners For Announcements
 - Small Business Administration (SBA)
 - National Institute of Science and Technology Manufacturing Extension Partnership (NIST-MEP)

ANNOUNCEMENT 

Small Business Vouchers Pilot Lead Labs

	Adv. Manuf.	Buildings	Solar	Wind	Water	Geo.	Vehicles	Fuel Cells	Bio-energy
	✗	✗					✗		
		✗			✗				✗
					✗			✗	✗
	✗					✗	✗	✗	
			✗	✗		✗			

Voucher Pilot Competition Cycle



How will we know that SBV has been successful?

1. SBV recipients are as successful as SBIR/STTR Phase II awardees in terms of key commercialization impact metrics

	SBIR Phase II Recipient after 5 years*
DOE Investment Per Phase II Project	\$700,000
Average Follow-on Private Sector Investments in 5 Years	\$386,000
Average No. Jobs Created or Retained	1.5
Likelihood of having sales/licensing revenue from Phase II	20 – 25 %

** Data taken from the National Research Council's 2008 Report "An Assessment of the SBIR Program at the Department of Energy"*

2. Labs significantly increase small business partnerships compared to FY2014.

3. Labs have implemented streamlined agreements that take no more than 2 months* to execute (*less time for agreements that do not involve IP)

Stay in Touch...

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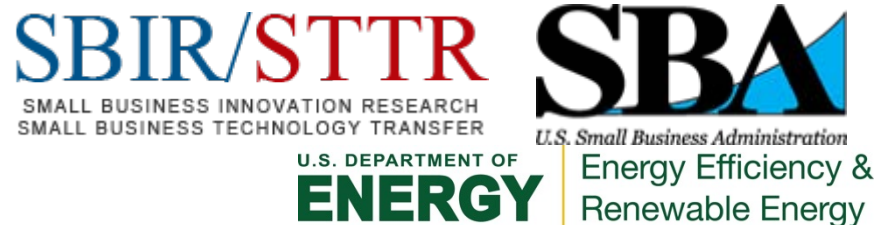
Email: Jill.Litwin@ee.doe.gov

Back Up Slides

Definition for an Eligible Small Business

An eligible small business (1) is organized for-profit; (2) is majority owned by US citizens, US owned small businesses, or US based venture capital, hedge fund or private equity companies; and (3) has less than 500 employees.

- *Simple verification of small business*
- *Does not eliminate majority VC/HF/PE owned businesses.* Many small businesses doing early stage research in clean energy may have substantial investor involvement/ownership, but could advance EERE's mission.



Standardized Agreements

Two standard agreements:

(1) SBV CRADA

(2) SBV Technology Assistance Program Agreement (TAPA)

IP Language in both agreements is the same: The small business is granted a [paid-up, royalty-free, nonexclusive license](#), without the right to sublicense, in a limited Field of Use

Why standardized agreements?: Both labs and small businesses have expressed a desire to [streamline the SBV pilot agreement](#) process by establishing [pre-negotiated](#) terms and conditions, especially on IP.

Why 2 agreements?: To allow for as much flexibility in small business engagement as possible, the SBV pilot will offer a Technical Assistance Agreement (for non-IP generating work) and a CRADA (for IP generating work)

The image shows two overlapping forms. The top form is the 'SMALL BUSINESS ASSISTANCE VOUCHER DOE-FUNDED COOPERATIVE RESEARCH AND DEVELOPMENT AGREEMENT (hereinafter "CRADA")'. The bottom form is the 'SMALL BUSINESS ASSISTANCE VOUCHER DOE-FUNDED TECHNOLOGY ASSISTANCE SERVICE AGREEMENT (hereinafter "TASA")'. Both forms have a header section with 'Agreement Number' and 'ADP Number' fields. Below that is a 'TO:' field for the 'PARTICIPANT' and a 'FROM:' field for the 'LABORATORY ADMINISTRATOR'. The TASA form has a 'Task Title' field and a 'Field of Use' field. Both forms have a 'PARTICIPANT' section with 'Name', 'Title', and 'Date' fields. The TASA form has a 'TERMS AND CONDITIONS OF AGREEMENT' section with four numbered points.

EERE GC has concurred on both agreements

A minimum of 20% cost-share from small businesses

Allowable Cost Share Categories:

- Cash
- Personnel
- In-Kind
- Indirect costs or facilities and administrative costs