

Oppenheimer Science and Energy Leadership Program  
**Cohort 2 Think-Piece Report**



**2 0 1 7 - 1 8 C O H O R T**

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**National Laboratory Directors' Council Spring Retreat**  
**4 April 2018**

# **COHORT 2 YEAR IN REVIEW**

## **KEY TAKE AWAYS**

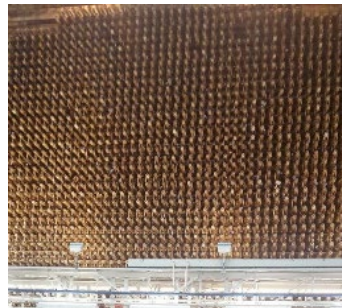
# We are the product





# Overview of Our OSELP Experience

- March 2017 Big Ideas Summit & Orientation
- June 2017 Chicago Area Site Visits
- July 2017 Bay Area Site Visits
- September 2017 NW Site Visits
- November 2017 TN Visits
- January 2018 CO/NM Visits
- April 2018 NLDC Retreat/Capstone



“Lab Theory”	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Major Facilities		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Historical Legacy	✓	✓					✓	✓	✓	✓	✓		✓	✓
STEM & Outreach			✓				✓			✓				
Technology Transfer		✓	✓					✓		✓				
Human Resources / D&I						✓	✓		✓		✓		✓	
Operations & Infra.			✓	✓			✓	✓		✓	✓	✓	✓	
Univ. & Industry		✓	✓	✓	✓		✓	✓	✓	✓		✓	✓	
Site Office			✓	✓			✓	✓		✓	✓	✓		
CRO		✓	✓	✓	✓		✓	✓	✓	✓		✓	✓	
Lab Director		✓	✓	✓			✓		✓	✓				✓
	DC	ANL	FNAL	SLAC	LLNL	SNL(W)	LBNL	PNNL	INL	ORNL	Y-12	NREL	LANL	SNL





**“Interactions  
with lab  
leadership  
shaped our  
thinking”**

**Hema  
Ramamoorthi**

# Cohort 2 Think Piece Topics

- Interactions sparked conversations that led us to think more deeply about several areas:
  - Creating Leaders with DOE Complex-wide Perspective
  - Engaging the Future Workforce
  - Collaborating to Meet Global Grand Challenges
  - Strengthening Relationships
- “Think pieces” are the shared task that reinforced our thinking about the complex as a whole – they are not the product of OSELP, but one mechanism to support the development of the product: the cohort itself

# **THINK PIECE**

## **CREATING LEADERS PART 1:**

### **WHY, WHAT, AND HOW OSELP MEETS A CRITICAL LEADERSHIP NEED**



# Why?

- Need for different leadership development and experience
  - CRENEL recommendation for DOE to operate the Laboratories as a *system*
  - Evolving mission for the Laboratory System amidst rapidly changing geopolitical and industry capability environments
  - Significantly greater level of laboratory collaboration than in past decades, leveraging the collective capabilities to tackle big challenges
  - Increasing need to understand and communicate the value of the Laboratory System
  - In house laboratory leadership programs cannot accomplish the system-wide view – single / multi program science and weapons labs differences



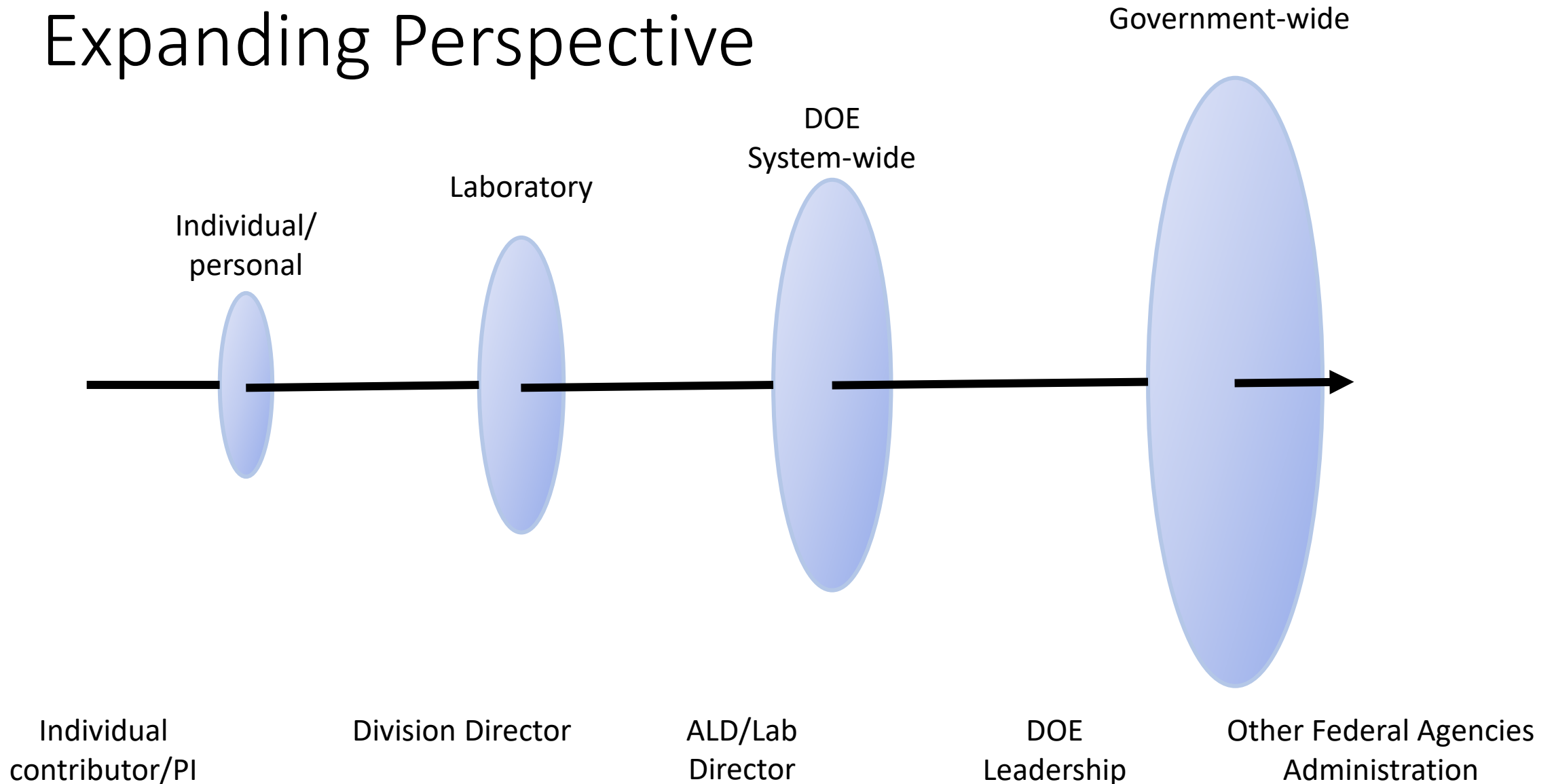
**“The OSELP  
experience is  
different than  
other  
leadership  
training”**

**Daniel Laird**

# What? How?

- What are we trying to do with OSELP?
  - Equip emerging leaders to confront uncertainty, face risk/challenges, create vision and follow through on vision
- How does this program equip participants
  - Perspective shift – from down and in to up and out, complex-wide view
  - Connectedness/relationships – within cohort, with senior leaders at labs, etc.
  - Knowledge – how it works, approaches to past challenges

# Expanding Perspective







**“OSELP  
provides a  
complex wide  
view”**

**Maureen  
McCann**



**“The OSELP  
network is  
already  
impacting our  
work”**

**Andrea Spiker**



**THINK PIECE**

**COMMUNICATIONS & WORKFORCE  
DEVELOPMENT**



# Challenge: Engaging the future workforce

- Future workforce recruitment was an issue discussed at each site.
- Every laboratory wants to recruit the best and brightest.
- Both OSELP cohorts identified gaps communicating the value of the national laboratory system.
- We are only as strong as our people.





# Telling our story

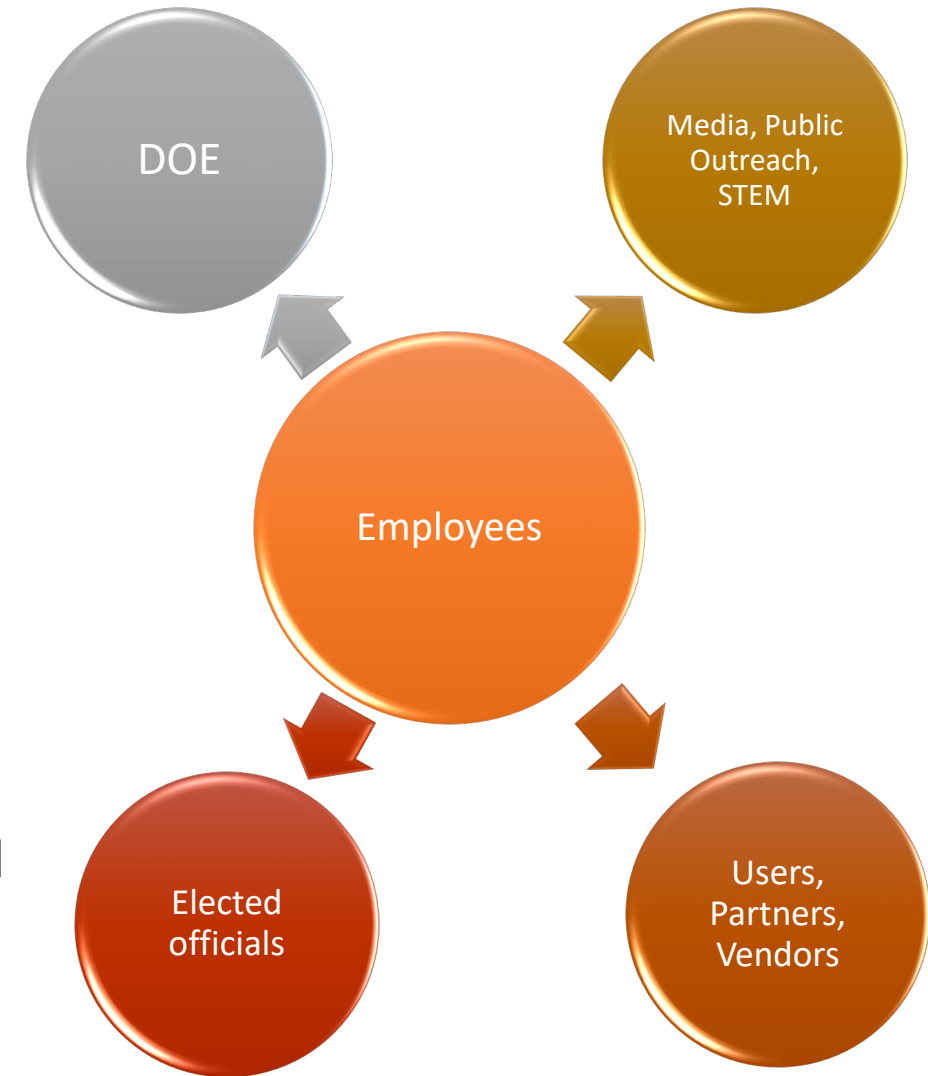


\*\* Deloitte Millennial Survey and  
Associated Press-GfK Poll  
Credit: smashinglogo.com

- We have a compelling mission, but we don't have a brand that reflects the quality of our product.
- Today's youth seek to align employer outcomes with positive social impact. \*\*
- Top talent in science, engineering and operations have options.
- We need to position ourselves to be # 1 choice.
  - Messaging from 17 individual labs gets lost
  - Nationallabs.org is a start
- Recommendation: Create a communication strategy that inspires the next generation.

# Leveraging our workforce

- Clear internal communications facilitates positive external communications.
- Together lets make the National Laboratories a household name.
- Engagement Tactics:
  - Empower your workforce to be ambassadors/advocates
  - Use virtual platforms and social media more effectively
  - Elevator speech contests, video contests, tours of various priority areas of your lab
  - Two way communication with the lab leadership
- By integrating our assets we can bring awareness of the National Laboratory system to targeted stakeholders, and STEM outreach partners.

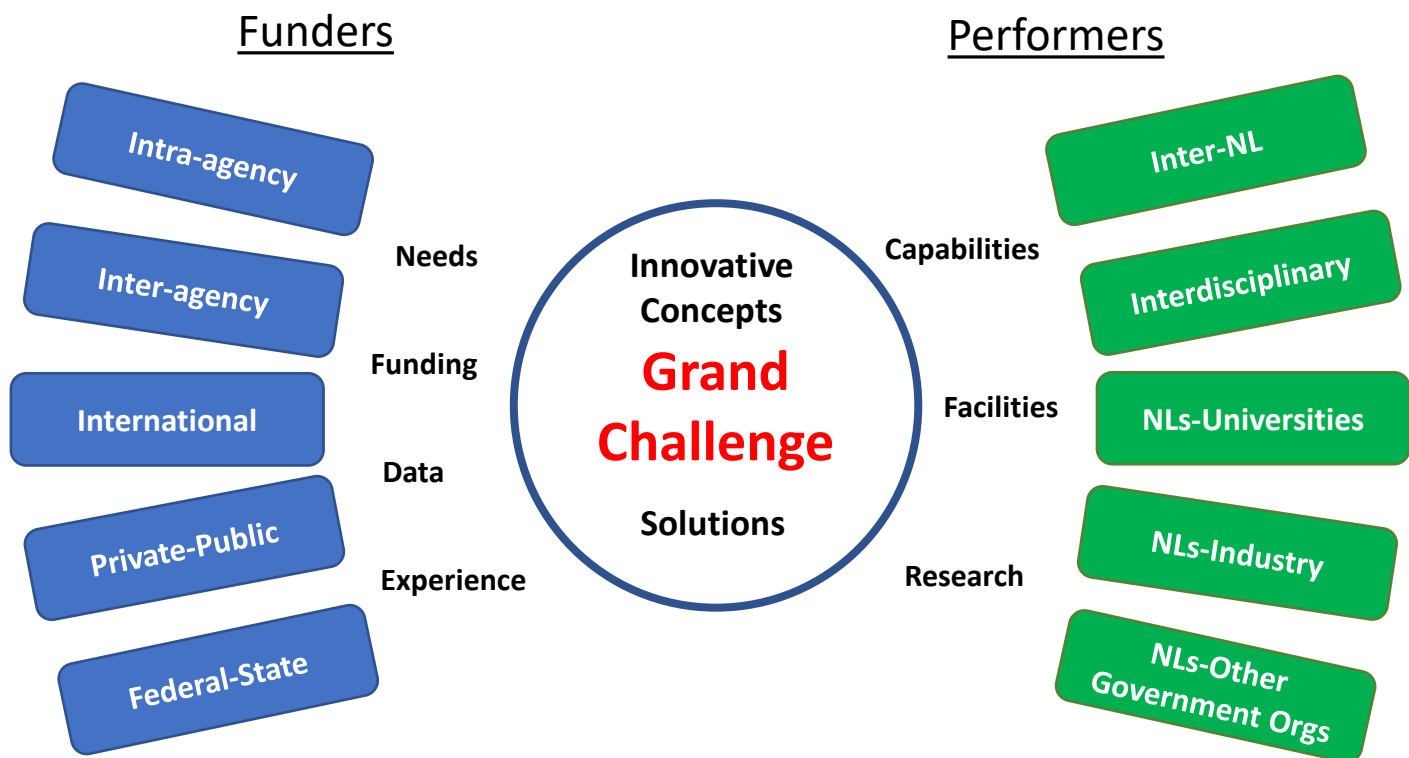


# **THINK PIECE**

**MEETING GLOBAL GRAND CHALLENGES  
THROUGH EFFECTIVE CROSS COLLABORATION**

# Meeting Global Grand Challenges:

Long-term R&D relationships enable improved technical outcomes, including step-out research and more efficient progress to solutions.



## Cross Collaboration

- Emergent events demand multi-agency teaming, but take time to establish
- DOE has explored various models, e.g.,
  - Cross-cut tech teams (DOE-program office collaboration)
  - Research hubs & EFRCs (R&D collaborations)
- What are effective models outside of DOE for promoting collaboration of research teams around solving a technical challenge?



# An Effective Model to Encourage Cross Collaboration and Development of New Communities

- Inspiration: Global Climate and Energy Project, Stanford University
  - Small scale (\$10M/yr), but effective in pulling communities together
  - Initiated as a pilot, funding from 3 industry partners



## Could a similar approach be successful with DOE as the catalyst?

- Sponsorship: Mix of DOE, other federal agencies, industry
- Focus: “Step-out” research addressing grand challenges or emerging threats
- Mechanism: Effective teaming creates solutions that would not exist otherwise by leveraging strengths of multiple agencies, national labs, industry, and academia
- Metrics for success?
  - Creation of new communities
  - Increased awareness of DOE and other stakeholder capabilities
  - Best practices shared across federal agencies, national labs, industry, and academia
  - Publications, presentations, patents

# Moving from Micro-Scale to Macro-Scale Teaming

- **Emergent conditions drive effective teaming to reach solutions – benefits are evident**
  - Entities come together that wouldn't have otherwise when conditions demand: e.g., Manhattan Project, Deepwater Horizon, Hurricane Katrina, etc.
  - Pre-established relationships can drive us to solutions even more quickly
  - Proactively addressing global grand challenges will position the U.S. as a leader in technology innovation
- **How can we move this forward?**
  - Convene a team around a driving force – challenge that will motivate across various federal agencies (e.g., energy resilience, cybersecurity, carbon management, etc.)
    - “Enterprise Risk” Workshop → Enterprise Opportunities
    - Identify actionable tasks
  - Moving the needle will require key champions in DC – WH, OMB, DOE to inspire action across agencies

# **THINK PIECE**

**STRENGTHENING RELATIONSHIPS  
TO IMPROVE MISSION DELIVERY**

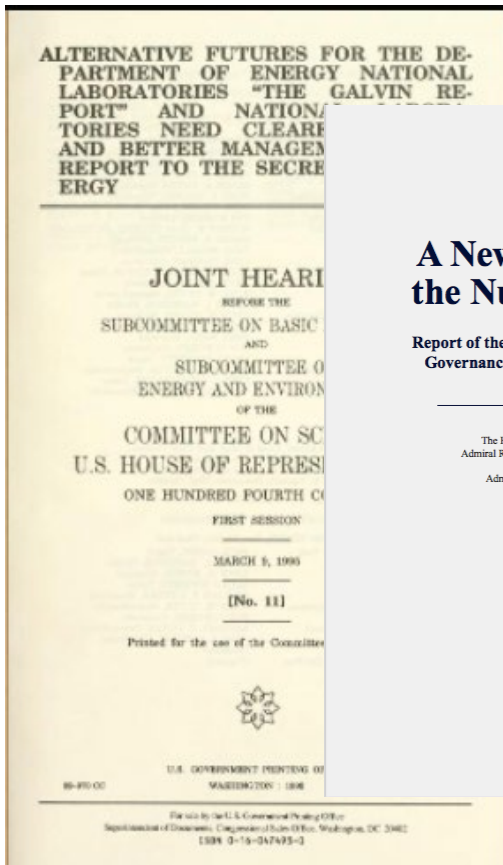


Strong teamwork yields extraordinary success

“There are five fundamental qualities that make every team great: communication, trust, collective responsibility, caring and pride.”

*Coach K*





## A New Foundation for the Nuclear Enterprise

Report of the Congressional Advisory Panel on the Governance of the Nuclear Security Enterprise

The Honorable Norman R. Augustine, Co-Chairman  
Admiral Richard W. Mies, U.S. Navy (Retired), Co-Chairman  
Dr. Michael R. Anastasio  
Admiral Kirkland E. Donald, U.S. Navy (Retired)  
The Honorable T. J. Glausier  
The Honorable David L. Hobson  
The Honorable Gregory B. Jazcko  
The Honorable Franklin C. Miller  
Dr. William Schneider, Jr.  
The Honorable John M. Spratt, Jr.  
The Honorable Ellen O. Tauscher  
The Honorable Heather A. Wilson

November 2014

U.S. DEPARTMENT OF ENERGY

**Report of the Secretary of Energy Task Force on DOE National Laboratories**

June 17, 2015

SECURING AMERICA'S FUTURE  
REALIZING THE POTENTIAL OF THE DEPARTMENT OF ENERGY NATIONAL LABORATORIES

FINAL REPORT OF THE COMMISSION TO THE EFFECTIVENESS OF THE NATIONAL ENERGY LABORATORIES

VOLUME 1: EXECUTIVE REPORT

ANNUAL REPORT ON THE STATE OF THE DOE NATIONAL LABORATORIES

JANUARY 2017

U.S. DEPARTMENT OF ENERGY

Over two decades of reports recommend strengthening the relationship between DOE and the National Labs.



# OSELP Observation: Strong relationships correlate with *effective mission delivery*



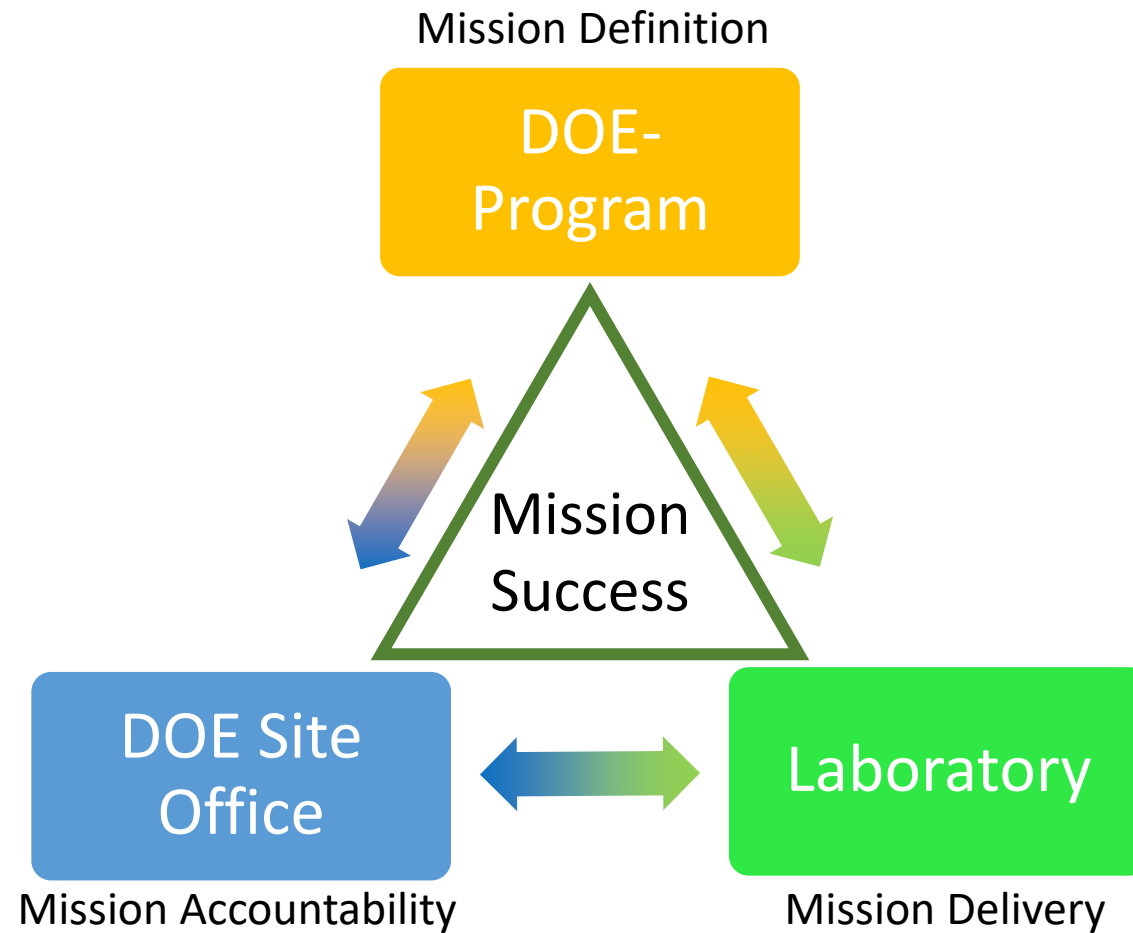
## Revolutionary Working Group

The Revolutionary Working Group (RWG) was chartered to eliminate superfluous and onerous requirements and develop a M&O contract for the modern era. SLAC and LBL describe relationship building as a major benefit of the RWG process – in addition to improvements in contract execution.



U.S. DEPARTMENT OF  
**ENERGY**

Office of  
Science



### Recommendations to align all three parties for mission success:

- Establish regular communication between site-office, DOE program, and Lab leadership
- Involve Federal employees in OSELP
- Promulgate the philosophy and relationship building experience of RWG

**THINK PIECE**

**CREATING LEADERS PART 2:**

**RECOMMENDATIONS FOR THE FUTURE**

# Recommendations to the NLDC

- Resolve stewardship of the program
- Include feds in the program – from site offices or HQ
- Modify think piece process/expectations

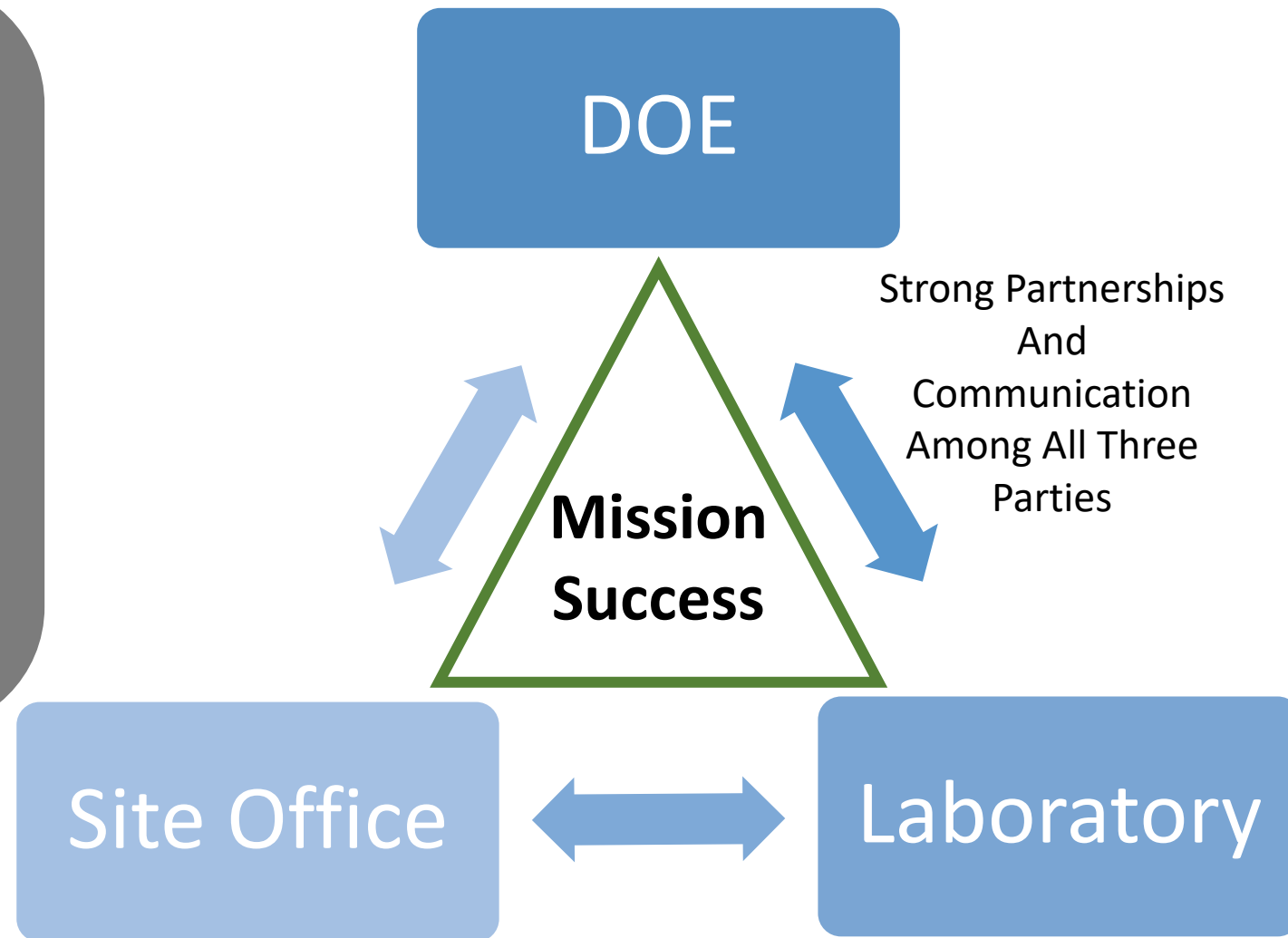


# BACKUP SLIDES

## OSELP Observation: Strong relationships correlate with effective mission delivery

### GO/CO overarching roles: WHAT vs. HOW

- The long-term VISION for S&T comes from the community (labs, industry, academia)
- Prioritization and strategic definition of MISSION comes from DOE
- Site Offices ensure Labs meet contractual obligations
- DELIVERY on that mission - HOW it is executed - is the responsibility of the Labs





## Revolutionary Working Group

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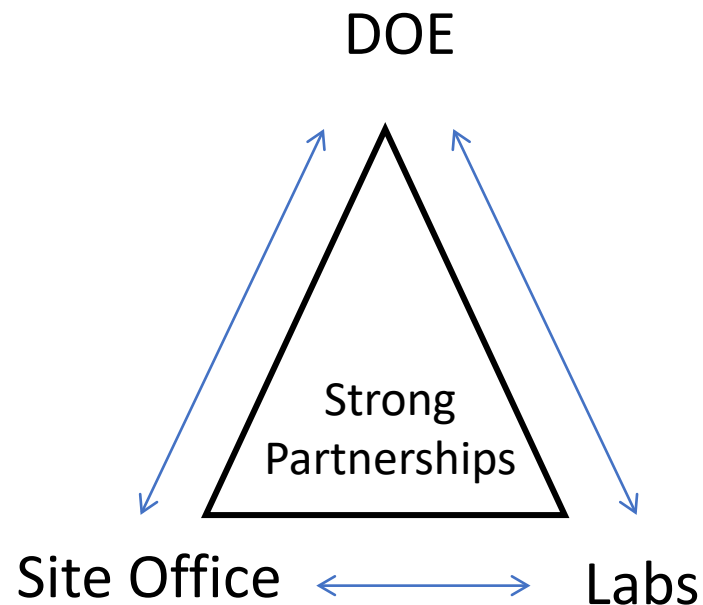
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Reports new and old describe need to strengthen relationships between DOE and Labs



**Revolutionary Working Group**



SLAC and LBL describe RWG process as a relationship building activity – in addition to improvements in contract execution. **Recommendation:** Pilot RWG with NNSA lab. Focus on discrete part, like Radiological Safety or SPP.



# Strengthening Relationships to Improve Mission Delivery

*A theme emerging from our OSELP experience has been that strong relationships correlate with effective mission delivery*

## GO/CO overarching roles

- The long-term vision of the WHAT must come from the community (e.g. labs, industry, academia)
- The short-term prioritization and definition of WHAT comes from DOE – should be big picture
- Delivery of that short-term WHAT (the HOW) is the responsibility of the laboratories

Aligning the three legs—laboratories, site offices, and the DOE program—in delivery of the mission, with each accountable for their respective roles

- Communicating programs with site office staff
- Involving feds in OSELP (ties in with Leadership think piece)
- Promulgating the philosophy and relationship-building experience of the RWG