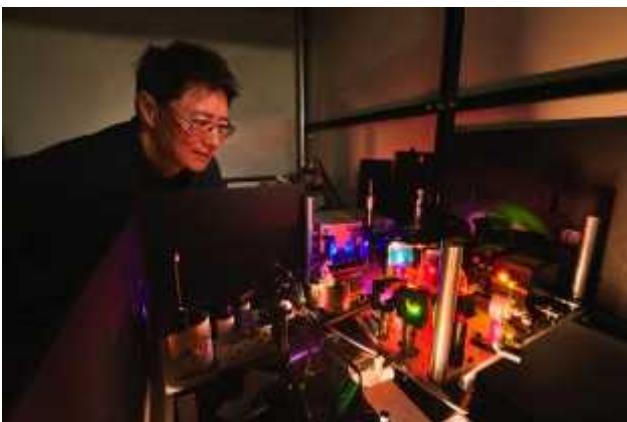
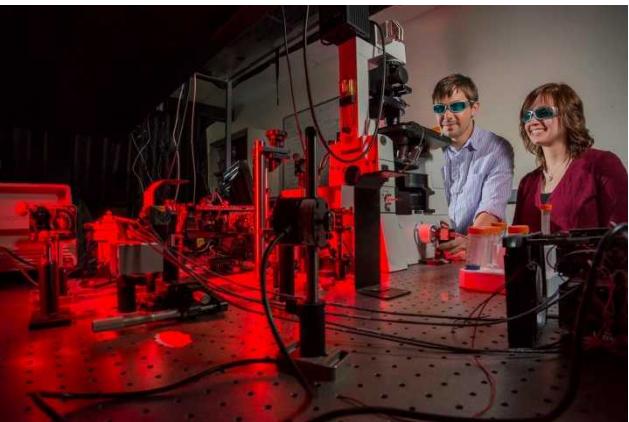


Exceptional service in the national interest



Sandia National Laboratories

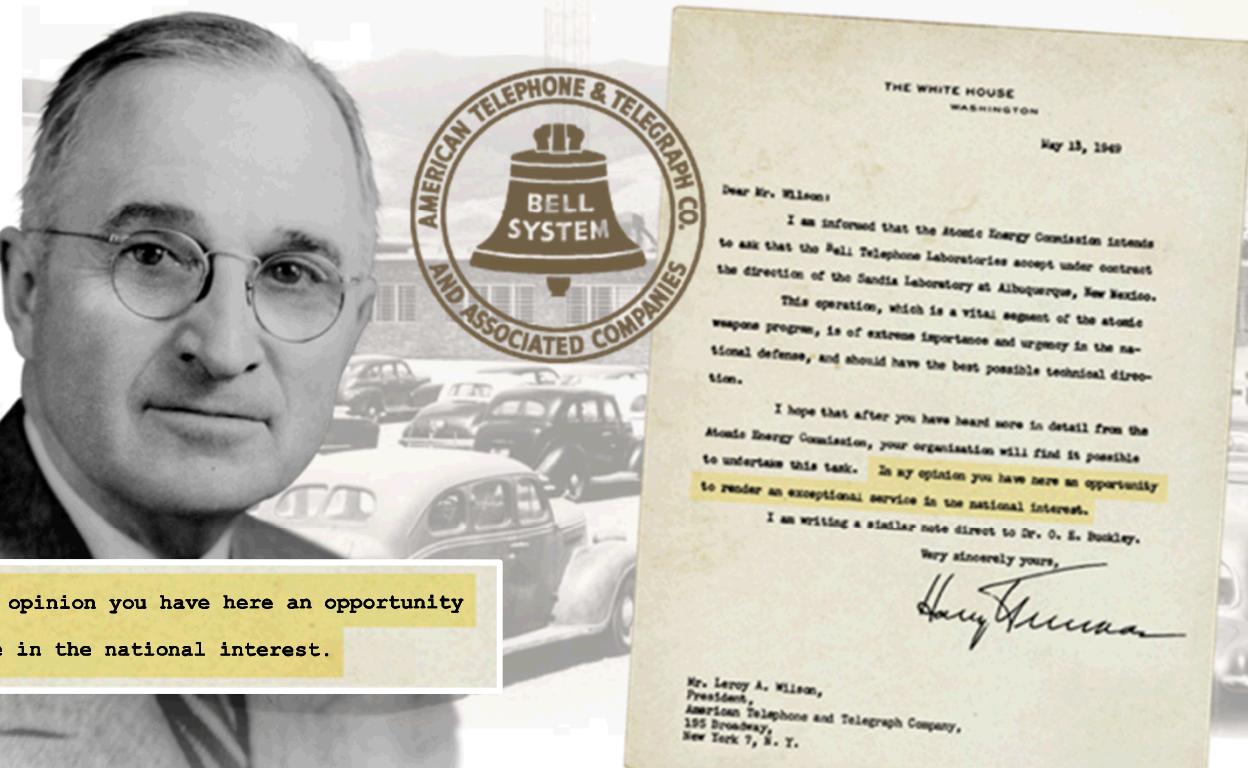
An Overview

D.R. Sandison, Director
Microsystems Science & Technology
January 19, 2016

Sandia's History

Exceptional service in the national interest

- July 1945: Los Alamos creates Z Division
- Nonnuclear component engineering
- November 1, 1949: Sandia Laboratory established



Laboratories Governance

Sandia Corporation

- AT&T: 1949–1993
- Martin Marietta: 1993–1995
- Lockheed Martin: 1995–present
- Existing contract expires: April 30, 2017
- Government owned, contractor operated



Federally funded
research and development center

Sandia
National
Laboratories

Managed for DOE by Sandia Corporation
A Lockheed Martin Company

United States
Department of Energy

National Nuclear
Security Administration



Sandia Sites

Albuquerque, New Mexico



Livermore, California

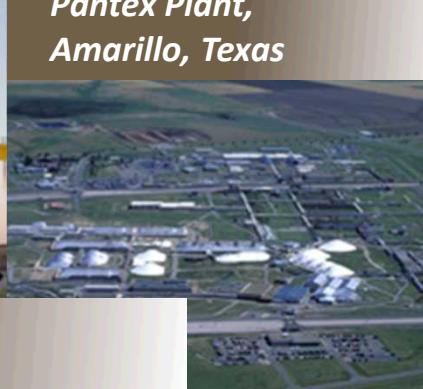


Kauai, Hawaii



*Waste Isolation Pilot Plant,
Carlsbad, New Mexico*

*Pantex Plant,
Amarillo, Texas*



*Tonopah,
Nevada*

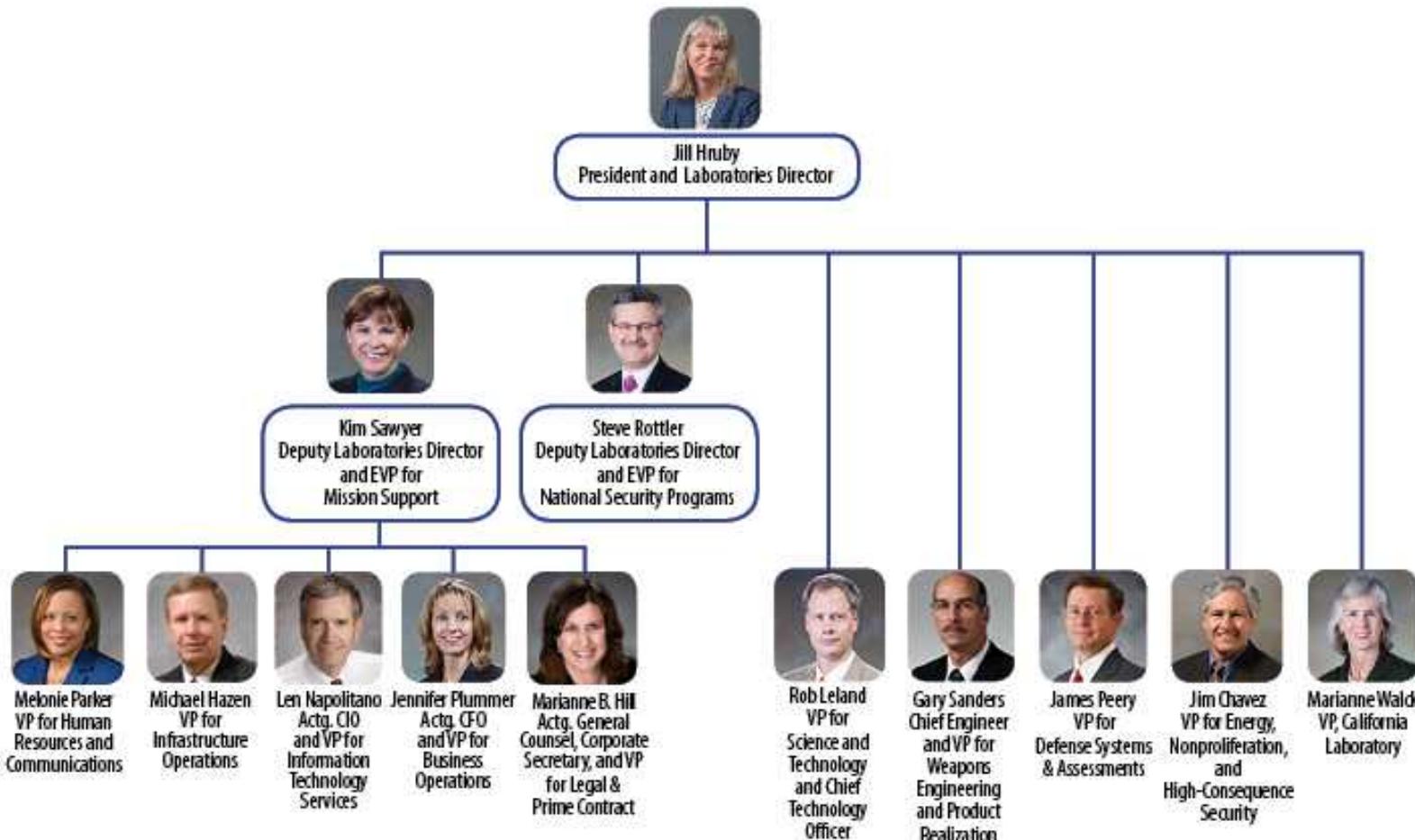


Our Core Values

- Serve the nation
- Team to deliver with excellence
- Respect each other
- Act with integrity
- Live safe and healthy lives



Executive Management Organization Chart

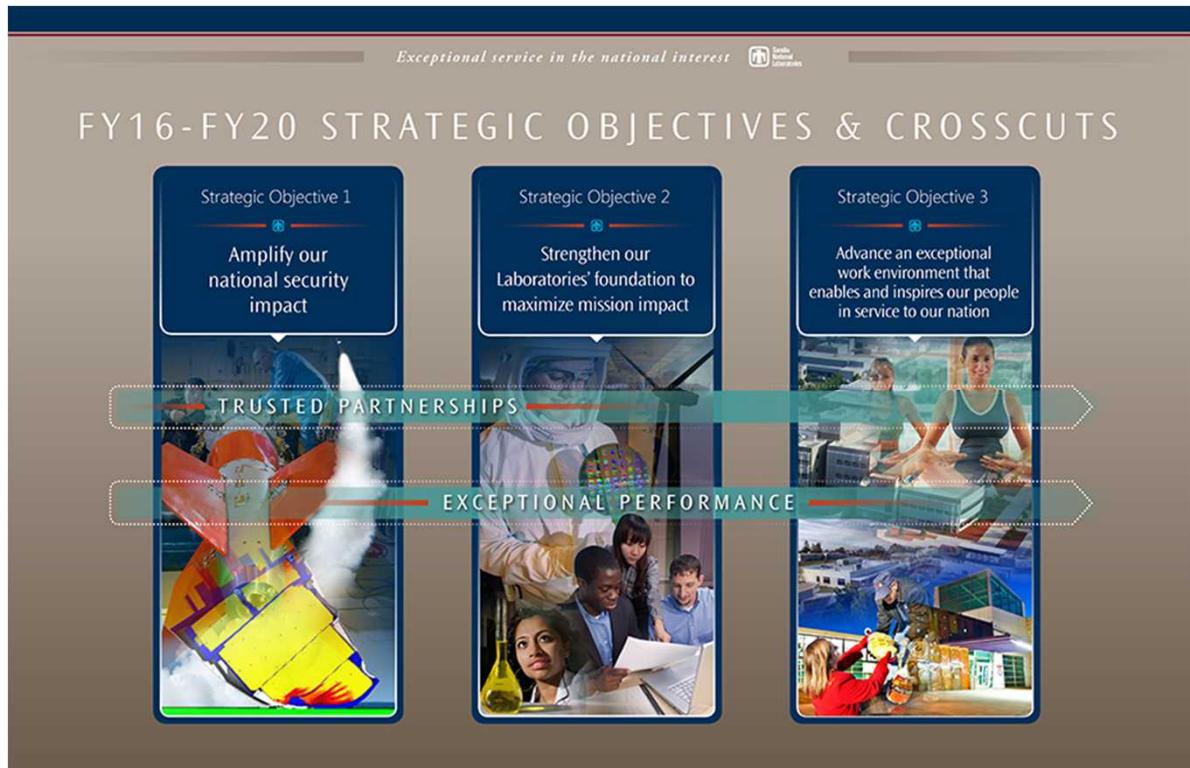


Nov, 2015

Strategic Plan

Strategic Objectives

- Amplify our national security impact
- Strengthen our Laboratories' foundation to maximize mission impact
- Advance an exceptional work environment that enables and inspires our people in service to our nation



Sandia's mission work has evolved to meet national security challenges

1950s

NW production
engineering &
manufacturing
engineering

1960s

Development
engineering

Vietnam conflict

1970s

Multiprogram
laboratory

Energy crisis

1980s

Missile defense
work

Cold War

1990s

Post-Cold War
transition

Stockpile
stewardship

2000s

Expanded national
security role
post 9/11

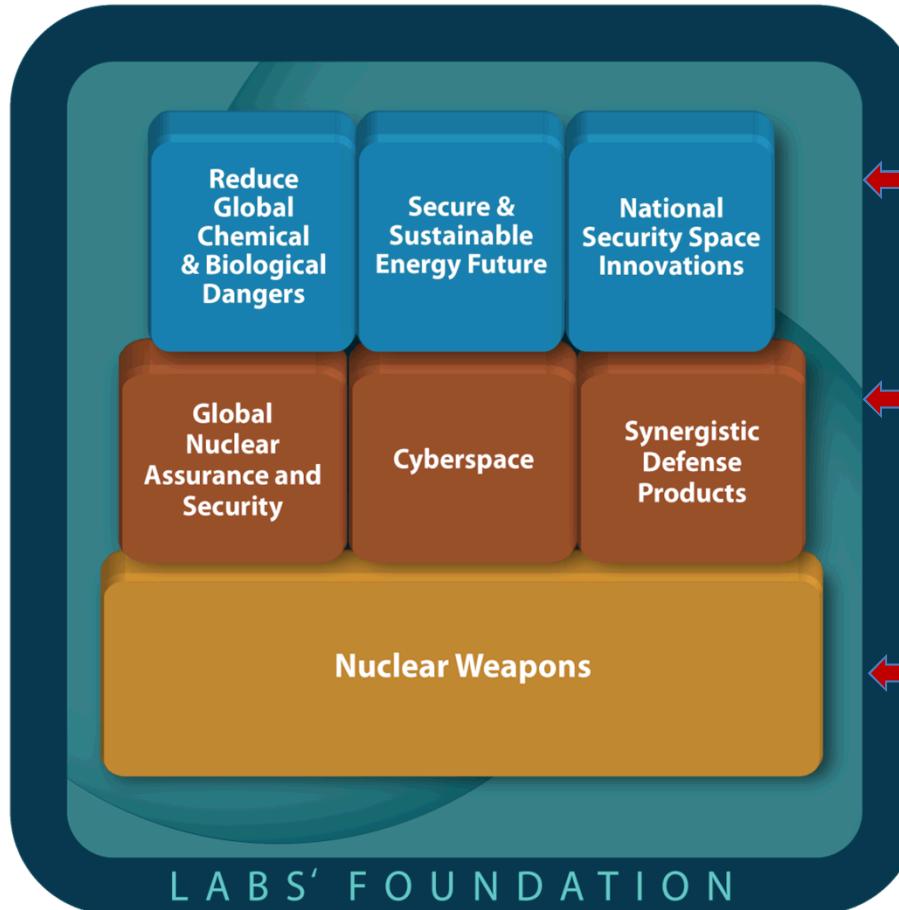
2010s

LEPs
Cyber, Biosecurity
Proliferation

Evolving national
security challenges



National Security Mission Areas

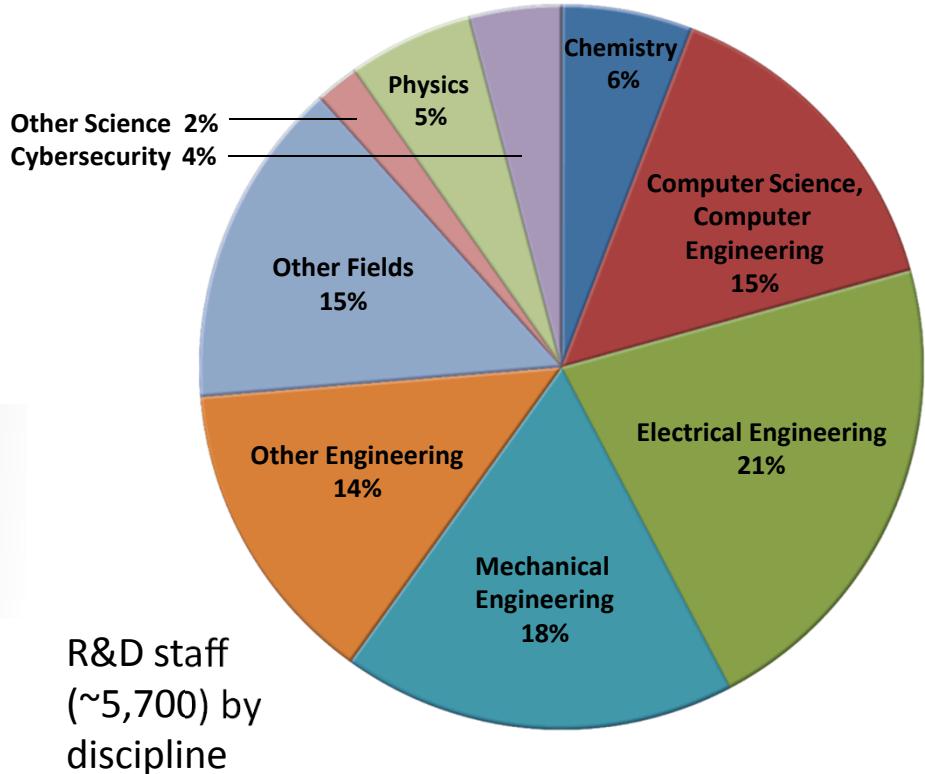


- Top row: Critical to our national security, these three mission areas leverage, enhance, and advance our capabilities.
- Middle row: Strongly interdependent with NW, these three mission areas are essential to sustaining Sandia's ability to fulfill its NW core mission.
- Bottom row: Our core mission, nuclear weapons (NW), is enabled by a strong scientific and engineering foundation.

Sandia's people: Our most important asset

- Strategically managed, highly educated workforce of diverse skills and competencies
- Modern business practices and operations in support of our missions

- **On-site workforce: 12,600**
- **Regular employees: 10,300**
- **Advanced degrees: 5,790**

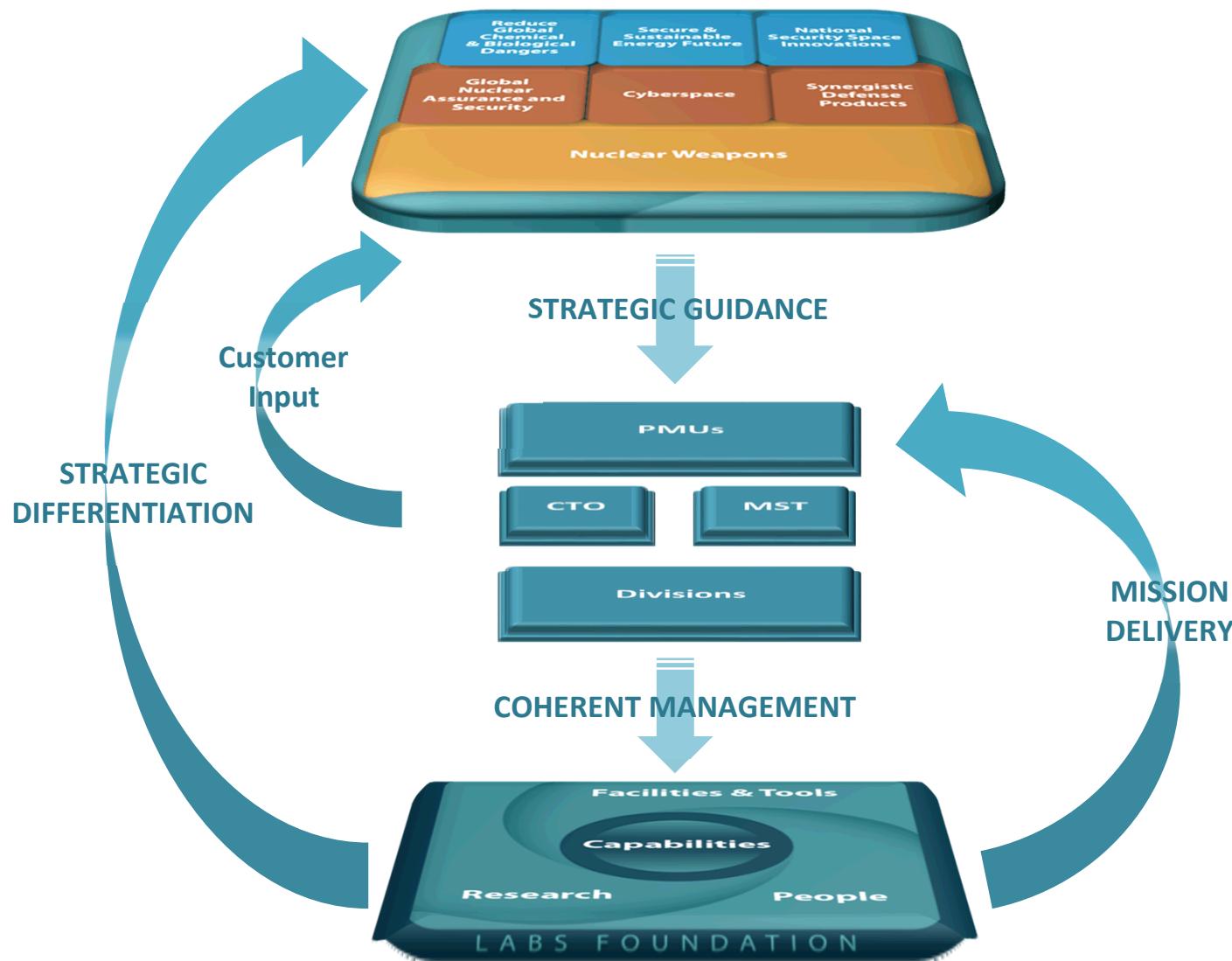


Leveraging core capabilities to solve 21st century national security challenges

- High-reliability engineering
- Sensors and sensing systems
- Cyber technology
- Reverse engineering
- Pathfinders
- Modeling & simulation and experiment
- Natural and engineered materials
- Micro & nano electronics and systems
- Safety, risk, and vulnerability analysis



Laboratories' Framework



Sandia's Nuclear Weapons Mission

- Maintain the current U.S. nuclear weapons stockpile
 - Annual Assessment, Surveillance, Limited Life Component Exchanges, Significant Finding Investigations
- Sustain the stockpile into the future
 - Life Extension Programs, Alterations, technology maturation
- Steward the long-term vitality of our capabilities, infrastructure and operations
 - Persistent commitment to multi-disciplinary staff, state-of-the-art labs, equipment, facilities and safe/secure/quality/affordable operations



Sandia's Current Nuclear Weapons Activities



Warhead Systems Engineering and Integration



An extensive suite of multi-disciplinary capabilities are required for Design, Qualification, Production, Surveillance, Experimentation / Computation

Major Environmental Test Facilities and Diagnostics

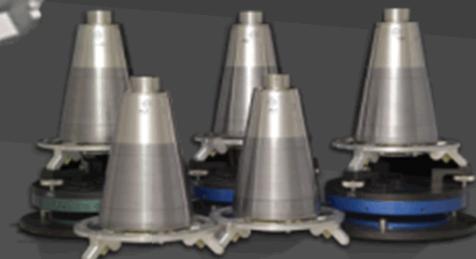


Z Machine

Light Initiated High Explosive
Annular core research reactor



Design Agency for Nonnuclear Components

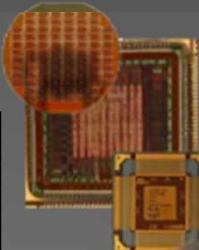
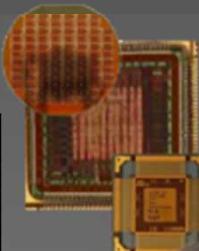


Arming, fuzing, and firing systems



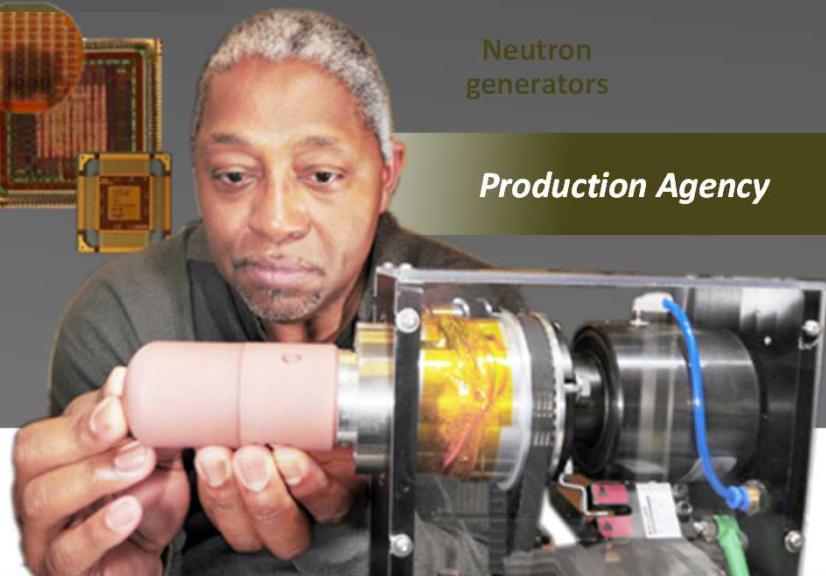
Safety systems

MESA Microelectronics



Neutron generators

Production Agency



Defense Systems & Assessments Programs

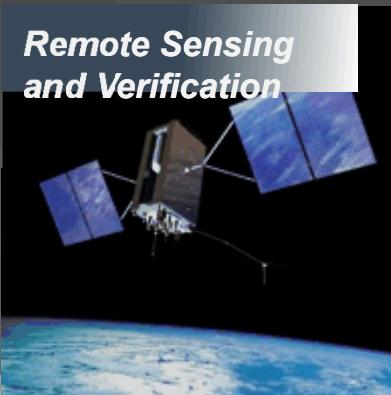
Information Operations



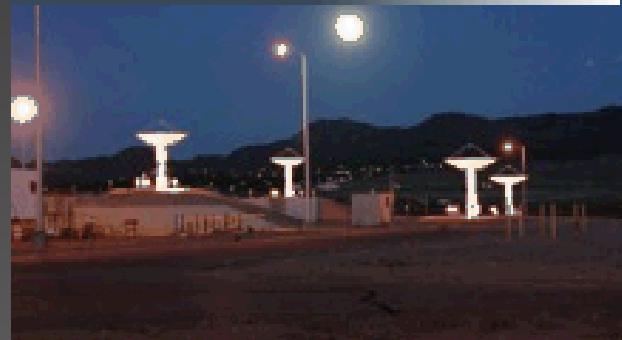
Surveillance & Reconnaissance



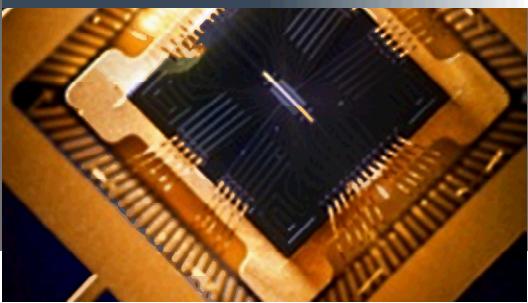
Remote Sensing and Verification



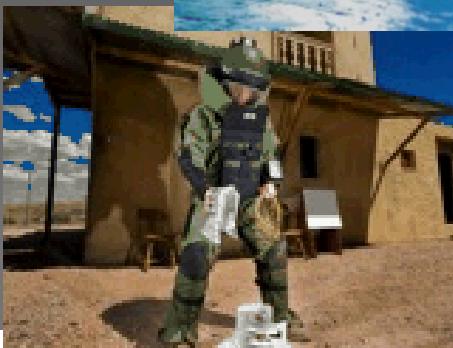
Space Mission



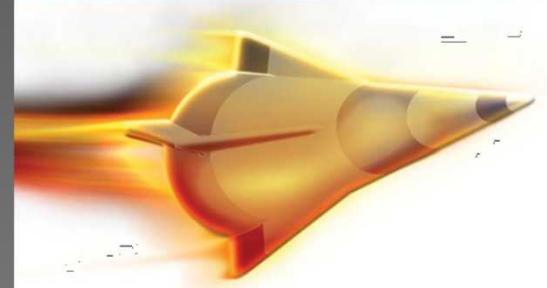
Science & Technology Products



Proliferation Assessment



Integrated Military Systems



Energy & Climate



Energy Research

ARPAe, BES Chem Sciences, ASCR, CINT, Geo Bio Science, BES Material Science

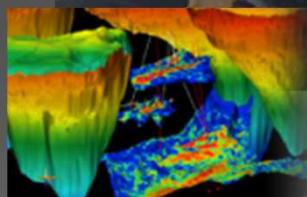
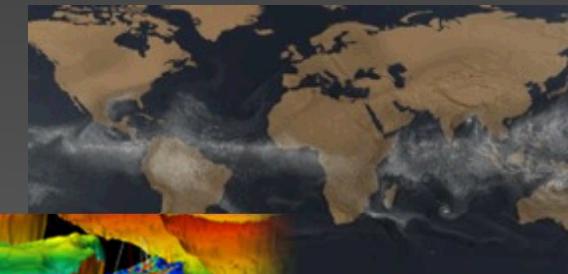
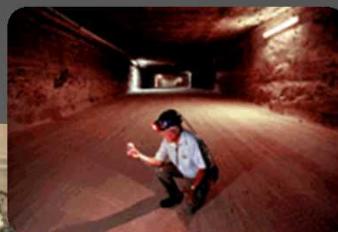
Renewable Systems & Energy Infrastructure

Renewable Energy, Energy Efficiency, Grid and Storage Systems



Nuclear Energy & Fuel Cycle

Commercial Nuclear Power & Fuel, Nuclear Energy Safety & Security, DOE Managed Nuclear Waste Disposal



Transportation Energy & Systems

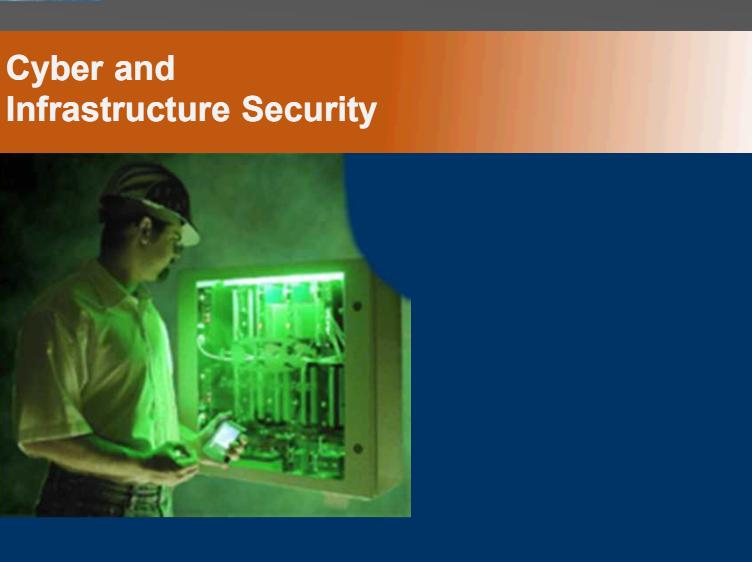
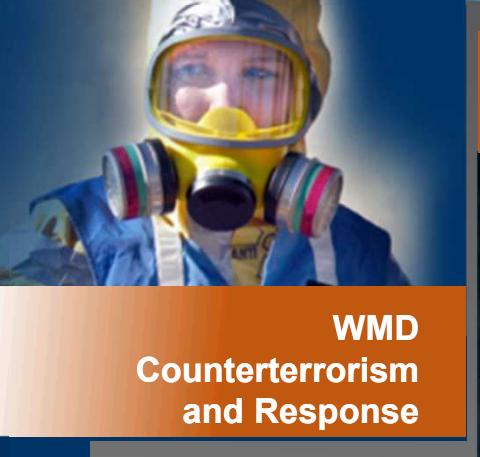
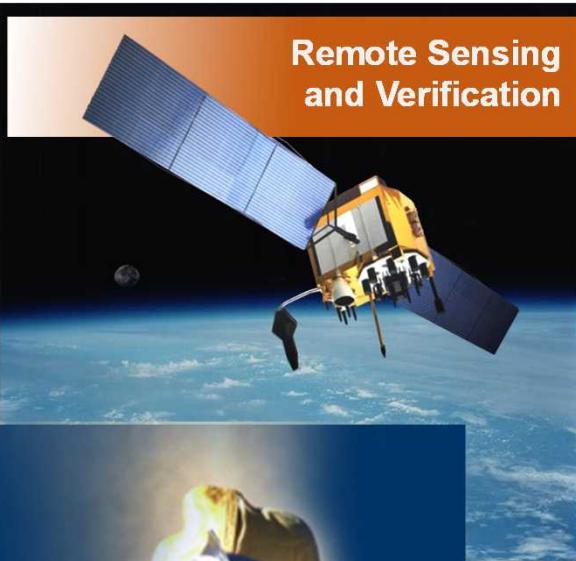
Vehicle Technologies, Biomass, Fuel Cells & Hydrogen Technology



International, Homeland, & Nuclear Security



Global Security

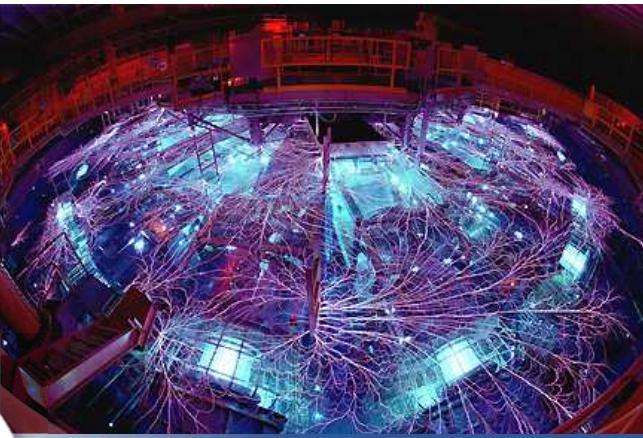


Homeland Defense and Force Protection

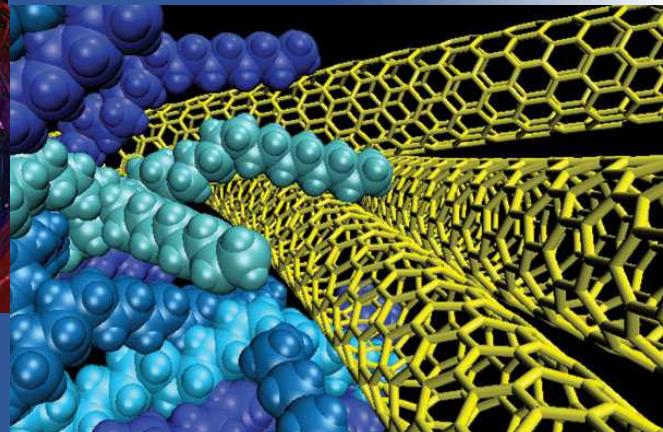
Our Research Framework

Strong research foundations play a differentiating role in our mission delivery

Computing & Information Sciences

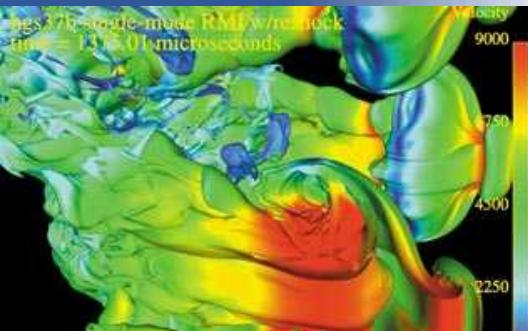


Materials Sciences



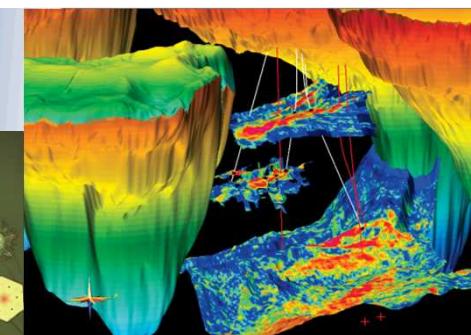
Radiation Effects & High Energy Density Science

Engineering Sciences



Bioscience

Nanodevices & Microsystems



Geoscience

Sandia's FY 2015 Total Expenditures

Total Laboratory Expenditures

\$2,813,070,000

Contract-Related Payments

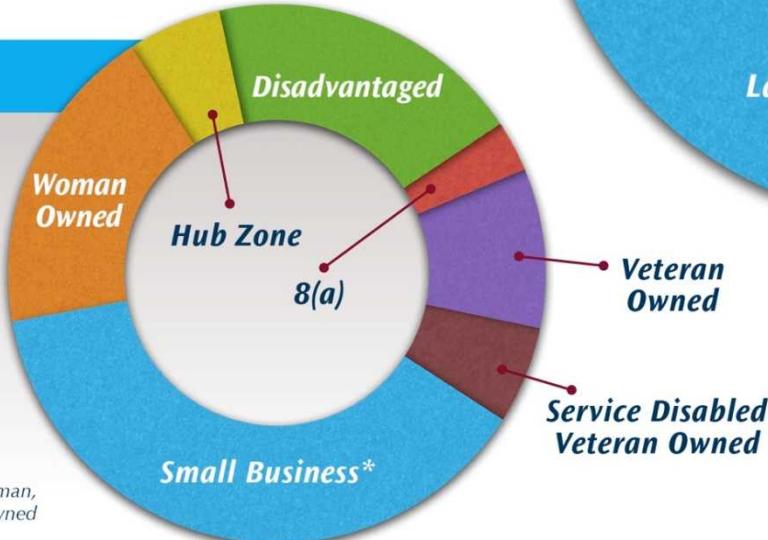
Represents dollars paid to purchase goods and services.

Corporate Taxes

Sandia paid \$69,553,000 to the State of New Mexico in gross receipts and corporate taxes and \$3,348,000 to the State of California in corporate taxes.

Total Small Business

\$519,330,000



Contract-Related Payments

\$982,762,000

Procurement Card Purchases
\$77,846,000

Corporate Taxes
\$74,148,000

Labor and Non-contract Related Payments
\$1,678,314,000

Exceptional Service in our Community



United Way in Calendar Year 2015

Total: \$6.9M

NM 2014 results: \$6.7M, including \$792k from retirees

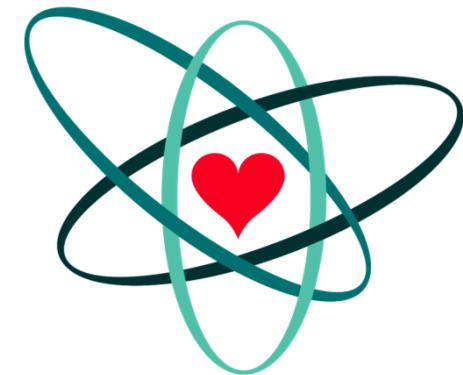
CA 2014 results: \$201,630

Sandia exceeded last year's giving by over 2.8%

NM Participation in 2014: 77%

NM Participation in 2015: 80%

Donations to the Community Fund increased by \$116,406



Questions?