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Facility Engineering @ LANL

LA-UR-23-XXXXX



Managed by Triad National Security, LLC., for the U.S. Department of Energy's NNSA.



Almost 80 years serving the nation

- In 1943, Los Alamos National Laboratory was founded with a single, urgent purpose: to build an atomic bomb
- Today, LANL focuses on maintaining a strategic nuclear deterrent to protect the nation's security
- Our workers, facilities, and instruments:
 - Detect nuclear weapons and improvised devices
 - Promote cooperation and diplomacy
 - Limit nuclear arms and the spread of nuclear materials, technology, and expertise



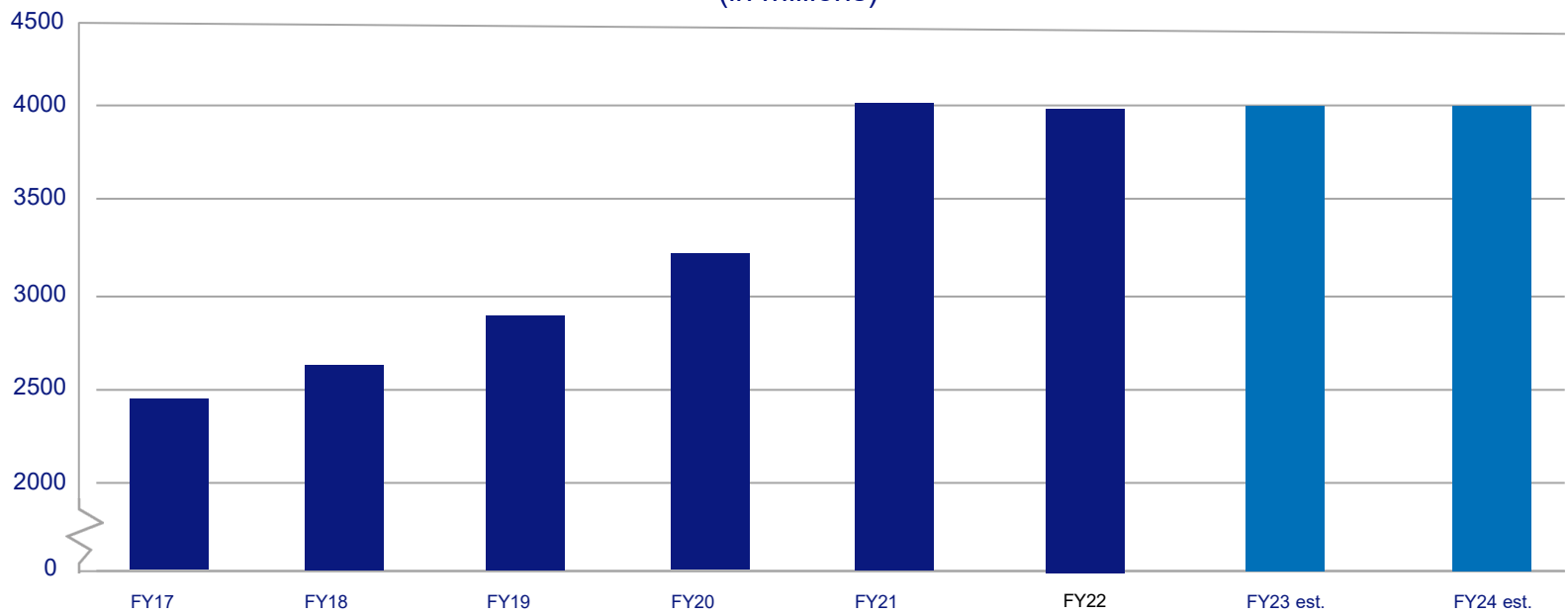
Employees manipulate materials inside a glovebox at TA-55.





Our strong budget reflects an important mission

LANL operating budget
(in millions)



LANL by the numbers

As of July 2022



40

size of the site, in
square miles



\$3.92B

projected operating
budget for FY22



\$2B

planned procurements
in FY22



15,000

total workforce



49%

staff who identify
as minority



\$1.3B

payroll



Up to **2,000**

planned hires
for FY22



33/67

staff who ID as
female/male



\$103K

average starting
salary



LANL Benefits

As of January 2023

Time Off

10 Paid Holidays
25 Days Paid Time Off
10 Days Compassionate Care Leave

Retirement Plan

6% Contribution Match
3.5% Employer Contribution

Insurance

Medical
Dental
Vision
And More

Maternity Leave

12 Weeks Paid Maternity Leave
4 Weeks Paid Parental Leave

LANL's parent company brings oversight and experience to bear as needed



- LANL is a DOE/National Nuclear Security Administration federally funded research & development center (FFRDC), managed by a contracting company
- Our current contractor is **Triad National Security**, an LLC with 3 main entities and 5 subcontractors
 - 3 members: Battelle Memorial Institute, Texas A&M University System, and University of California
 - 2 integrated subcontractors: Fluor and Huntington Ingalls Industries
 - 3 small business subcontractors: Merrick-SMSI, Longenecker & Assoc., and TechSource

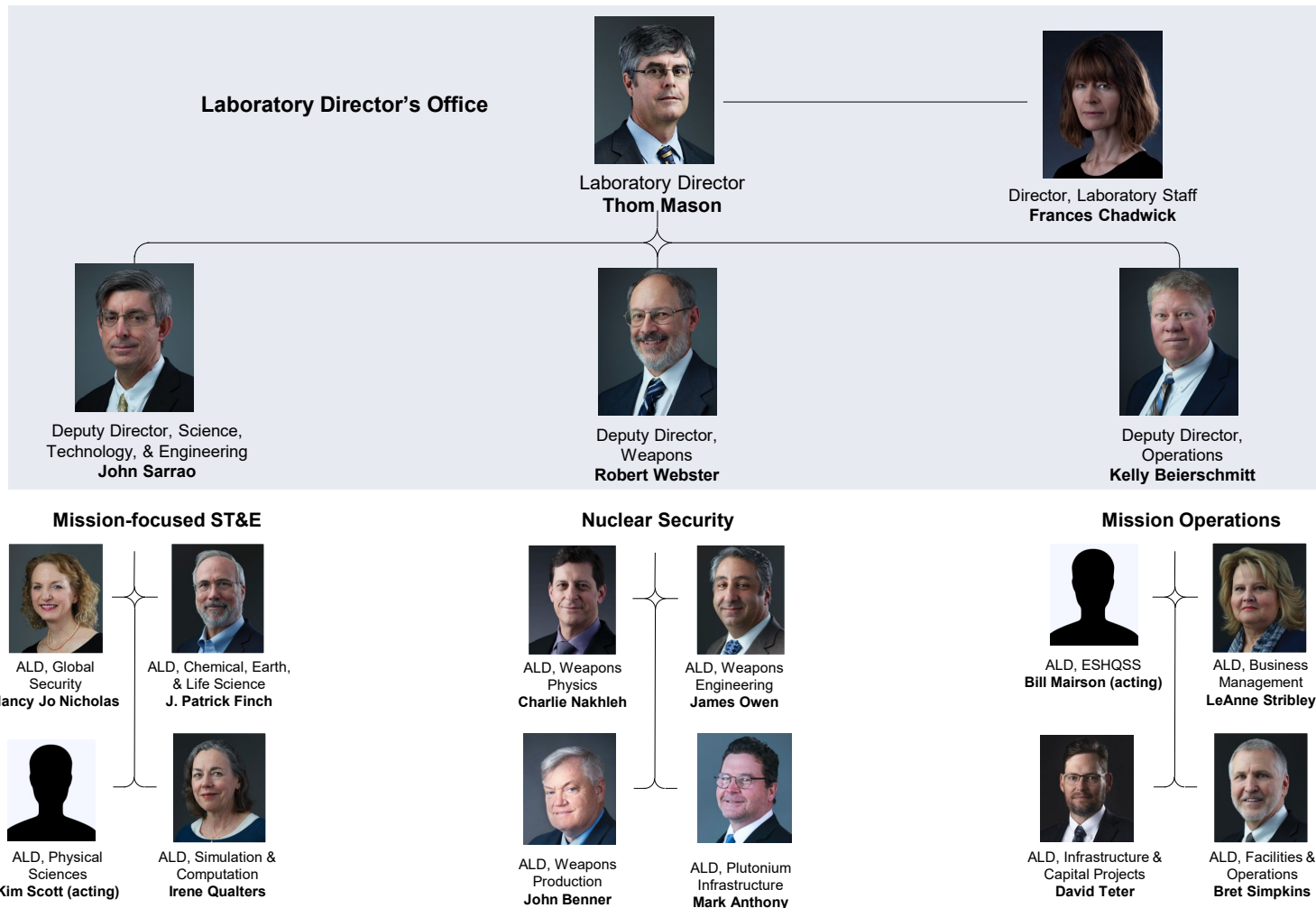
BATTELLE



FLUOR



Leadership Team





World-class science underpins our mission

- **LANL is the design lab for 4 of the 7 weapons systems in the on-alert deterrent**
- **U.S. nuclear testing ended in 1992, but weapons are highly complex and dynamic**
 - Modern stockpile stewardship involves testing facilities, surveillance, supercomputing, & more
- **Science developed via LANL's stockpile research is also applied to**
 - Climate change, vaccine development, cybersecurity, epidemic & disaster modeling, and space exploration





Engineering Services



WHO WE ARE

Engineering Services Division supports facility engineering across Los Alamos National Laboratory's (LANL) diverse portfolio. The mission at LANL is increasing and so are the facility needs. We support the world's greatest scientific facilities to support the worlds greatest scientists.





Engineering Services



WHAT WE DO

Engineering Services Division is Los Alamos National Laboratory's internal engineering design firm. As the scientific mission at Los Alamos evolves, we ensure that the facilities evolve too. This often involves moving walls, adding power, providing HVAC, and more.





Facility Highlights



DARHT:

Dual Axis Radiographic Hydrodynamic Test Facility

Los Alamos scientists built DARHT, the world's most powerful x-ray machine, to analyze mockups of nuclear weapons.

LANSCE:

Los Alamos Neutron Science Center

LANSCE is a premier accelerator-based user facility for national security and fundamental sciences. At the heart of LANSCE is a powerful linear accelerator that accelerates protons to 85% the speed of light.





Facility Highlights



SCC:

Strategic Computing Complex

The SCC is a secured supercomputing facility that supports the calculation, modeling, simulation, and visualization of complex nuclear weapons data in support of the Stockpile Stewardship Program.



Renovating and expanding our site to attract and retain our workforce



Breaking ground for new cell towers

- Making significant improvements to our 40-square-mile campus
- This work will positively impact the area economy



One of the new Santa Fe offices, occupied in 2021

- Leased facilities in Northern NM, which will better connect the community to LANL events like STEM education and teacher development



Photo credit UbiQD

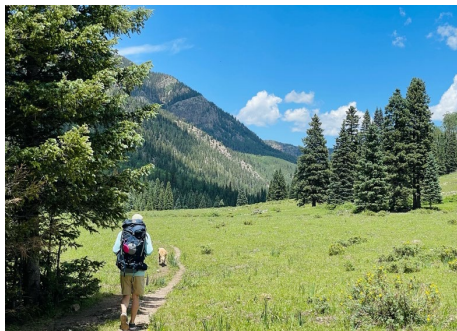
UbiQD, which uses technology spun off from LANL, installs a solar window at a NM hotel.

- LANL directly & indirectly creates 24,000 jobs in NM





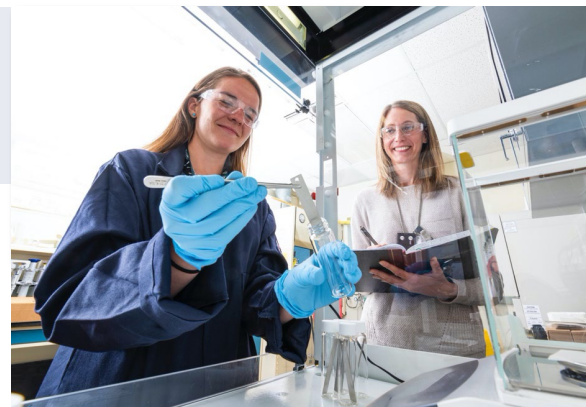
LANL is in a culturally and environmentally rich location





Students & postdocs are crucial for our future workforce

- Postdoc and student programs, summer schools, and universities are critical to our pipeline efforts, recruitment, and retention
- LANL is hosting 1,812 students in summer 2022 and has ~430 postdocs
 - 7% of students converted to regular employees in FY21
 - Conversion rate for postdocs averages ~50%
- We need the best and the brightest to continue our mission to protect our nation
 - National labs offer good compensation packages and are competitive with high-profile companies



Percentage of Total Lab Population Who are Former Students or Postdocs

35%

All LANL
employees
(Reg, TRMA)

61.8%

All R&D
scientists &
engineers



Questions?