

MANAGING FOR THE FUTURE

FY 2022 was a year of building for future mission successes through new initiatives, attention to workforce needs, and expanding partnerships.

STRATEGIC LEADERSHIP

Under the leadership of Laboratory Director Kimberly Budil, LLNL is providing NNSA with technical leadership in many facets of its national security mission and efforts to modernize the NNSA complex. Livermore is engaged in two nuclear warhead development programs (p. 6) and is working with other NNSA sites to develop technologies and procedures that will accelerate the weapon design-to-production process. These efforts are benefiting from major advances in high-performance computing and machine learning, additive manufacturing, and experimental capabilities to certify

Positioning the Laboratory for continuing science and technology excellence directed at important national missions

weapons performance and advance fusion research. LLNL was also strongly engaged in NNSA's strategic planning efforts in FY 2022, fully supporting NNSA's strategic vision to innovate, collaborate, and deliver.

In planning activities, LLNL's senior management team (SMT) developed aspirational goals and objectives in Mission and Programs, Workforce, Operations, and Science and Technology. Special attention is directed at four mission focus areas: Stockpile and Enterprise Transformation, Integrated Deterrence and Technology Competition, Climate Impacts and Resilience, and Bio Resilience. As a complementary

planning activity, the GuideStar study team, comprised of 19 mid-career Laboratory leaders, deliberated about the challenges LLNL will face over the next 25 years. These planning efforts reinforced the importance of attracting and retaining a talented workforce to meet national security priorities and sustain LLNL's tradition of innovation and scientific excellence.

DIRECTOR'S OFFICE CHANGES

In September 2022, Carolyn Zerkle joined the Laboratory as LLNL Deputy Director and Vice President of Lawrence Livermore National Security, LLC (LLNS). As deputy director, Zerkle participates in



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the day-to-day management of LLNL—providing executive-level guidance and direction within the SMT and interfacing with the NNSA Livermore Field Office, the LLNS Board of Governors, and the Laboratory's many partners. She brings a wealth of career experience managing major construction projects and operations at Los Alamos National Laboratory. Departing deputy director Linda Bauer provided outstanding service to the Laboratory in her nearly three years of service. She worked closely with Director Budil to implement the ever-evolving protocols necessary to carry out research and operations in the hybrid workplace that resulted from the COVID-19 pandemic.

Other Director's Office changes include a new acting Chief of Staff and the creation of three new positions: a Senior Director, Strategic Communications; a Senior Director, Office of Government and External Affairs; and a Director for Strategy and Planning.

SUPPORTING A CHANGING WORKFORCE

An outstanding workforce is Livermore's principal strength. Recruiting, training, and retaining exceptional talent is a top priority at a time of rapid change in our workforce. Management attention to engaging Laboratory employees contributed to LLNL receiving a Glassdoor Employee's Choice Award for the fourth straight year. Many initiatives are under way, with some early successes in improving employee benefits. A Future of Work Task Force is looking at redefining LLNL's workplace to optimize mission success and the employee experience. In addition, a performance management team is redesigning the performance management process to provide a clear pathway for contribution and growth that helps employees understand the value of their work and enhances mission delivery. A compensation task force is working closely with NNSA to better align the compensation system with current practices to enhance recruiting and retention. Future plans include revisiting job structures and implementing the Future of Work Task Force recommendations.

COMPLETION OF MAJOR INFRASTRUCTURE PROJECTS

In June 2022, DOE Under Secretary for Nuclear Security and NNSA Administrator Jill Hruby and other dignitaries came to the Laboratory to dedicate the completion of two important construction projects: the \$100-million Exascale Computing Facility Modernization (ECFM) project and the 20,550-square-foot Emergency Operations Center (EOC). Both projects were completed ahead of schedule and under budget. ECFM provides the infrastructure needed to support El Capitan (p. 7) and its successor later in the decade. The upgrade can supply up to 85 megawatts—enough for about 75,000

modest-sized houses—to power LLNL's supercomputers and triple the amount of cooling.

The EOC consolidates the Laboratory's emergency response functions and provides 24/7 operations. Transitioning emergency response capabilities, which involved hundreds of tasks, was completed successfully with no major operability issues. An NNSA NA-50 pilot project, EOC construction successfully demonstrated the streamlining of commercial-like Line-Item projects in the \$20–\$50 million cost range. Many significant construction projects now in progress—including new facilities to support stockpile modernization—will further contribute to the Laboratory's ability to carry out its important national security missions.

LLNS BOARD OF GOVERNORS ACTIVITIES

The LLNS Board of Governors and its committees provide oversight to the Laboratory and delve into issues crucial to mission and mission-support activities. External review committees (ERCs), panels of independent experts including Board members, periodically met in FY 2022 to critically assess the quality of the Laboratory's technical workforce and the effectiveness of research efforts in meeting mission goals and future national needs. Their reports, which provided DOE/NNSA with an independent validation of work quality, consistently affirmed the mission relevance and high impact of Laboratory research. The Board chartered functional management reviews (FMRs) on an as-needed basis. Eight FMRs were completed in FY 2022 in topical areas including Records Digitization, Packaging and Transportation, Water Needs, Work Planning and Control, and Industrial Gas. Recommendations provided by Board committees, ERCs, and FMRs have led to substantive responsive actions.



LLNL Director Kimberly Budil and NNSA Administrator Jill Hruby listen as U.S. Secretary of Energy Jennifer M. Granholm speaks at the DOE press conference announcing fusion ignition.



Members of the Laboratory's Exascale Computing Facility Modernization team, which kept construction on schedule and finished under budget, are pictured atop the new cooling towers.