

U.S. Secretary of Energy Chris Wright visited LLNL in May 2025, experiencing firsthand the cutting-edge science and technology that power the Laboratory's mission to protect the nation and advance the frontiers of discovery.



MANAGING FOR THE FUTURE

FY 2025 was a year of building for future mission successes through new initiatives, focus on workforce needs, and expansion of partnerships.

STRATEGIC LEADERSHIP

In May 2025, U.S. Secretary of Energy Chris Wright visited LLNL to see firsthand the Laboratory's contributions to national security and leadership role in science and technology (S&T). Secretary Wright met with Laboratory leaders, participated in an all-hands meeting with employees, and engaged with scientists and engineers as he toured LLNL's world-class facilities. Both his visit and that of Deputy Secretary of Energy James Danly in July 2025 showcased Livermore's focus on the most important national security challenges with emphasis on DOE's priorities of speed and agility. LLNL is providing programmatic and technical leadership, delivering major successes, and expanding partnerships in many facets of its national security mission and efforts to modernize the NNSA complex. The Laboratory is engaged in three nuclear warhead development programs (see pp. 4-5) and is collaborating with other NNSA sites to develop technologies and procedures that will accelerate the

Moving the Laboratory forward in science and technology excellence directed at important national missions

weapon design-to-production process. In many mission areas, LLNL is pursuing strategic engagements with other federal agencies and mutually valuable partnerships with industry and academia. In FY 2025, LLNL also significantly expanded its engagements with Congress and the State of California and, as a trusted partner in national security, continued to provide critical support and special expertise to federal agencies with LLNL offsite fellows.

These warhead modernization efforts—and projects in mission areas ranging from nonproliferation and biosecurity to energy and space security—particularly benefit from three prominent LLNL S&T core competencies (and their cutting-edge capabilities): High Energy Density Science (the National Ignition Facility); High-Performance Computing, Simulation, and Data Science (El Capitan and Tuolumne); and Advanced Materials and Manufacturing

(the Advanced Manufacturing Laboratory and enclaves). These world-class competencies—in combination with LLNL's overarching strength in AI—position the Laboratory for a leadership role in DOE's newly launched Genesis Mission. As highlighted throughout this *Annual Report*, AI is being used to accelerate scientific discovery and streamline operations.

SUPPORTING A NEW GENERATION OF WORKFORCE

An outstanding workforce is Livermore's principal strength. Recruiting, training, and retaining exceptional talent is a top priority. After rapid growth of LLNL early in the decade, workforce size has stabilized to about 8,800 full-time employees; about 70 percent of the staff have ten years or less service at the Laboratory. Generational changes bring vitality and fresh ideas, which have blended well into LLNL's tradition of being

a mission-driven "big ideas" laboratory focused on applying multidisciplinary S&T on the most important national security challenges. Employees have a shared sense of purpose and welcome the challenge of transforming to a faster, more agile DOE/NNSA. Transformation at Livermore includes an improved performance management system that provides each employee timely feedback, and many efforts are focused on enhancing employees' workplace experience. The satisfaction of staff members to workplace quality is reflected in national recognition, such as 2025 Glassdoor's Employees' Choice Awards for "Best Places to Work" and "Best-Led Companies."

LLNL's performance management system is designed to promote and encourage employees to plan and take advantage of career development opportunities, which are numerous. This year, all employees were encouraged to learn about and integrate AI tools into their daily work (see p. 20), and nearly all have been using LivChat, an LLNL generative AI tool. In addition to extensive mentoring activities, the Laboratory offers a wide range of training courses, many of which were updated in FY 2025 and include an expanded set of leadership training activities. Program areas are also offering specialized opportunities, such as the nine-month-long Energetic Materials University offered by the Energetic Materials Center.

FUTURE PLANNING AND SITE DEVELOPMENT

In 2024, LLNL's senior leadership team (SLT) launched an "over the horizon" planning activity with periodic workshops that continued through FY 2025. The objective was to define an "LLNL 2050" strategic vision and identify key missions, S&T advances, and cultural transformation to support that vision. Deliberations have led to updates of near-term management strategies and development of 5-to-7-year goals aligned with NNSA plans and the LLNL 2050 vision. The Laboratory's FY 2026 investment strategy for S&T is directed toward these goals. In addition, the SLT formulated an infrastructure strategy to support LLNL's future objectives, which is now factored into site development planning. The National Security Innovation Center (NSIC) is an



An LLNL chemical engineer inspects a filter in the Energetic Materials Development Enclave Campus (EMDEC) Chemistry Area Pilot Plant. EMDEC is one of enclaves that the Laboratory established to foster greater collaboration between Livermore and production partners, such as the Pantex Plant, in the Nuclear Security Enterprise.

office complex that will co-locate and provide modern classified workstations and collaboration spaces for about 800 weapons program staff and senior LLNL leaders. The NSIC will be located in the center of the Laboratory's campus. Approval of Critical Decision 0 (CD-0) in January 2025 formally established the project and initiated the process of alternative analysis and conceptual design heading toward CD-1 in FY2026. The NSIC is critically needed for future mission delivery. As highlighted elsewhere (see p. 9), the NIF Enhanced Yield Capability passed CD-0 and is moving toward a CD-1 decision in early FY 2026.

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 2025 to critically assess the quality of Livermore'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. LLNS also leveraged parent company expertise to provide topical assistance to address arising Laboratory needs and to staff functional management reviews (FMRs), chartered on an as-needed basis. FMRs were completed in FY 2025 in topical areas including quality assurance and enterprise risk management. Recommendations provided by Board committees, ERCs, and FMRs have led to substantive responsive actions.



In January 2025, more than 80 researchers were the first graduates of the Energetic Materials University, a nine-month intensive program that provides specialized training for newer staff members.