LAWRENCE LIVERMORE NATIONAL LABORATORY

CALIFORNIA ECONOMIC IMPACT



awrence Livermore National Laboratory (LLNL) is the premier research and development facility for science and technology solutions to some of our nation's greatest challenges. Staffed by more than 6500 employees serving in an array of scientific, technical and specialized fields, LLNL has a 60-year legacy of championing "science in the national interest."

LLNL's funding largely comes from the National Nuclear Security Administration (NNSA) Office of Defense Programs for nuclear weapons stockpile stewardship activities. Support for national security and homeland security work also comes from the NNSA Office of Defense Nuclear Nonproliferation, the Department of Homeland Security, various Department of Defense sponsors, and other federal agencies.

Business Partner

LLNL's Office of Economic Development includes the Livermore Valley Open Campus (LVOC) (https://www.llnl.gov/lvoc/index.php), the High Performance Computing Innovation Center (HPCIC) (hpcic.llnl.gov) and Industrial Partnerships Office (IPO) (ipo.llnl.gov). The Economic Development Office is focused on public/private partnerships and growing high-technology business opportunities in the Tri-Valley area and greater San Francisco Bay region. These goals are enhanced by extensive relationships with regional business-supporting organizations such as the Bay Area Council, East Bay EDA, Silicon Valley Leadership Group and Contra Costa Council.

The LVOC is a joint collaboration between Lawrence Livermore and Sandia Laboratories/California. It is an open, unclassified research and development space of approximately 110 acres on the east side of the Laboratory sites designed to better facilitate interactions with industry and academia on research in such fields as high performance computing, energy and environmental security, economic security, cyber security and non-proliferation. The HPCIC is the first facility on the Lawrence Livermore portion of the LVOC. Opened in





Procurement awards in California in Fiscal Year 2012 exceeded \$206 million. See economic impact.

2010, HPCIC provides unprecedented, "game changing", computing resources to United States industry to help solve their business and proprietary challenges.

IPO is the conduit through which the Laboratory connects industry partners with Laboratory-developed technologies. Partnering arrangements vary, but can include work for others agreements and Cooperative Research and Development Agreements, which are designed to support new business ventures with Laboratory expertise. IPO has also spearheaded a Laboratory partnership with angel capital leader Keiretsu Forum (*keiretsuforum.com*) to further

ECONOMIC IMPACT - LAWRENCE LIVERMORE NATIONAL LABORATORY

stimulate private sector commercialization opportunities. IPO has generated active commercial licenses with some 121 companies in the United States and internationally, including 49 in California alone. Licensing and royalty income in recent years has topped \$9 million annually, and has represented just under \$400 million in annual sales of products based on LLNL technologies.

LLNL's **Procurement Department** is responsible for purchasing high-quality supplies and services required by the Laboratory in a cost-effective and timely manner, while meeting socioeconomic compliance requirements and applicable U.S. Department of Energy (DOE) regulations identified in the Laboratory's Prime Contract with DOE.

In Fiscal Year 2012, LLNL awarded more than \$568 million in procurements to a diverse group of large and small business concerns, both in California and across the nation, for a broad range of products and services which support the Laboratory's overall mission.

Community Partner

Almost half of the Laboratory's employees reside in the Tri-Valley/Livermore region. A sizable portion also lives in San Joaquin County, with the remainder in Alameda and Contra Costa Counties and outlying areas. In all, this constitutes a more than \$700 million payroll base that directly impacts the regional economy.

LLNL also measures its impact by productive partnerships with surrounding communities. This includes elected officials, community leaders, neighbors, educators, and business and community organizations. These relationships are supported by regular dialogue, civic involvement and volunteerism, Laboratory site tours, science education activities in the Discovery Center and other area venues, and partnerships with community colleges and universities.

The Laboratory and its manager, Lawrence Livermore National Security (LLNS), LLC, give back to the community through various giving programs. LLNL employees and LLNS support the community through the annual employee donation campaign, Helping Others More Effectively, or HOME. Last year, LLNL raised \$3.5 million dollars through HOME, which was distributed to regional non-profit and support agencies. The LLNS annual \$100,000 Community Gift Program supports organizations primarily involved in science, math education and cultural arts.

To learn more about LLNL go to www.llnl.gov or contact the Public Affairs Office at 925-422-4599.





LLNL-MI-636335

Lawrence Livermore National Security, LLC. This work performed under the auspices of the U.S. Department of Energy by Lawrence Livermore National Laboratory under contract DE-AC52-07NA27344.

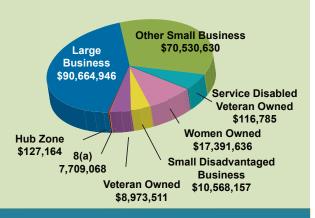
TOTAL PROCUREMENT AWARDS (FY 12)

Subcontract Awards \$493,979,216 Credit Card Purchases \$74,479,481

CA PROCUREMENT AWARDS (FY 12)

Subcontract Awards \$162,495,487 Credit Card Purchases \$43,586,410

CA PROCUREMENT AWARDS BY SOCIOECONOMIC CATEGORY (FY 12)



SUCCESS STORIES



Livermore-based CPAC is developing and commercializing a highly compact intensity-modulated proton therapy system for cancer treatment based on LLNL licensed technology. This game changing technology will provide superior, and more widely available radiotherapy treatment at a fraction of cost of current proton therapy systems.



Pleasanton-based Quantalife developed an advanced digital PCR (DNA molecule selection) system based on LLNL licensed technology. The company was purchased by Bio-Rad in 2011 for \$162 million.



Metal Improvement Company, a business unit of Curtiss-Wright Corporation with operations in Livermore, is an industry leader in precision metal surface treatments for a variety of industrial needs. These capabilities include laser peening, which was developed in partnership with LLNL to improve jet engine blade integrity.