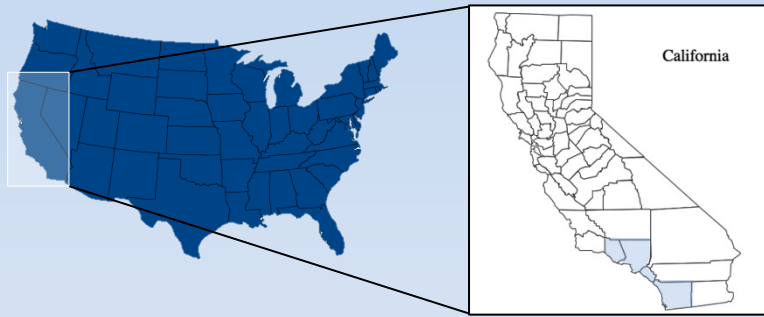


Investing in Manufacturing Communities Partnership

Advanced Manufacturing Partnership of Southern California Manufacturing Community



The Community

California is home to 17% of the United States' total aerospace production. 80% of the state's aerospace workers reside in the Southern California region. The aerospace industry in Southern California produced more than \$31 billion worth of goods in 2011. Capturing this production has broad benefits for the population of Southern California, with each aircraft manufacturing job supporting more than five new jobs in other industries. Building on the strengths of its workforce partnerships and its research institutions, the region has become a hub for new business attraction. For example, Boeing just announced that they are transferring 1,000 engineering jobs to the region to take advantage of the large talent pool.

The Vision

AMP SoCal unites a broad-based consortium of 86 dedicated organizations that have come together to transform the Aerospace and Defense ("A&D") industry with a focus on advanced manufacturing technologies from additive manufacturing to model-based engineering and design. Home to companies like SpaceX, AeroVironment, and Sapphire Energy, the Southern California region is positioned in the vanguard of the future avionics and aerospace industries.

The Strategy

Workforce and Training: AMP SoCal will: (1) form a consortium of 2 and 4 year colleges to prepare the workforce from the technician to the engineer to function as a contributing team member in a model-based engineering and design value chain. The program will incorporate stackable certificates that provide design skills from the technician to the engineer level. The program will also identify and promote ladders of opportunity for veterans, youth, and the unemployed to become technicians and for technicians to become engineers. (2) Additionally, AMP SoCal will develop a standards based Additive Manufacturing Technician stackable certificate program that will incorporate core and professional competencies, coupled with support material that will be disseminated via a train-the-trainer model. (3) Form a managed career pipeline of qualified applicants and incumbent workers to fill apprenticeships and other job vacancies; and (4) a "University Guides Network Program" will be developed (initially for the 5 California State University Campuses and later expanded) to provide a single point of contact to help industry partners navigate each unique institution and the various offerings across specializations and schools.

Supplier Network: A new *Accessible Smart Digital One-Stop* will focus on building supplier agility including small manufacturers' capacity in collaborative design of new components using model-based engineering and design skills; virtual testing and model-based engineering, and rapid testing and prototyping.

Research and Innovation: A systematic and integrated approach to innovation, incubation, and business development will link advanced manufacturing startups more closely with university and college resources and allow firms to work directly with students and recruit new talent. For example, "University Guides" will link university research and support to incubator firms at various campuses.

Infrastructure and Site Development: Traffic congestion regularly delays about one-fifth of commercial trucks in the region, increasing cost of shipping by 50% – 250%. An initial \$29 million has been committed for congestion relief, and additional funding will be sought. In addition, AMP SoCal will provide one-stop services via a new website – *AMP SoCal Red Carpet*, including one-on-one assistance on finding a location, modifying sites, buying equipment, hiring workers, and identifying a supply chain.

Trade and International Investment: Small manufacturers will be assisted in reaching their international sales potential through export acceleration workshops. New businesses will also be linked to the global economy by directly engaging firms and incubators with regional academic research and expertise in logistics, exporting, and international trade.

Operational Improvement and Capital Access: New technical assistance centers will provide small manufacturers with unbiased assessments of their current business systems, and individualized plans for investing in technology and adopting supply chain management practices. These efforts will be coordinated with the *Accessible Smart Digital One-Stop* strategy to form an integrated supply chain management platform.

The Partnership

Local Governments: County of Los Angeles, and Cities of Los Angeles, Compton, El Segundo, Gardena, San Diego, and Whittier **Education Institutions:** California Polytechnic Institute, University of California, Los Angeles (UCLA), University of California, San Diego (UCSD), California State University, the Montebello Unified School District **Federal Labs:** Jet Propulsion Laboratory managed by the California Institute of Technology **Public Private Partnerships:** Aerospace and Defense Forum, California Network for Manufacturing Innovation, Cleantech San Diego, and Southern California's NIST Manufacturing Extension Partnership Center: California Manufacturing Technology Consulting **Economic Development Organizations:** San Diego East County Economic Development Council, Los Angeles Economic Development Corporation San Diego Regional Economic Development Corporation, Ventura County Economic Development Collaborative, BioCom, LARExC and Port of Long Beach, Southern California Association of Governments, Gateway Cities Council of Governments.