

# California Innovation Corridor WIRED Project

**“Workforce Transformation: Innovation Support,  
Industrial Rejuvenation, Talent Development”**

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# “Workforce Transformation” Project



- Economic Region:
  - The California Innovation Corridor
- Program Lead:
  - The California Space Authority (CSA)
- State of California Role
  - Technical support, fiscal agent, other support
- Partners
  - 13 county economic region, 60+ partners





# “Workforce Transformation” Project Origins



- CSA strategic plans:1998/2004
  - 1998 Collaboratives
    - Economic Development; Education/Workforce Development Collaboratives
  - 2004
    - Education/Workforce Development
    - Industrial Base Vitality; Business Development, Retention and Growth; Science, Research and Technology Development Collaboratives/Space Manufacturing Working Group; Small Business Working Group
- Existing partnerships

# California Innovation Corridor





# California Space Authority (CSA)



- Non-profit corporation supporting statewide space enterprise in 3 domains: commercial, civil, national security
- State designated “Spaceport Authority”
- Working with four sectors: industry, government, academia/education and workforce
- Ongoing statewide strategic planning including R&D and education/workforce initiatives



## State of California Role

- Technical assistance and support
  - Labor and Workforce Development Agency (LWDA)
- Fiscal agent
  - LWDA, Employment Development Department (EDD)
- Training reimbursement funding
  - Employment Training Panel (ETP)





# Roles of 60+ Partners

- Industry/Private sector/Small Business
  - Advisory: design/validate project elements; offer “real-world” experience and private sector expertise
- Workforce Investment Boards
  - Support/perform needs/training analyses
  - Provide dislocated and entry worker linkage
  - Interface with industry/economic development academia to support/develop education/training resources
  - Seek understanding of “flat world” workforce impacts (globalization, innovation)





# Roles of 60+ Partners (cont.)

- Economic development entities
  - Inventory regional innovation assets
  - Identify candidate companies for projects
  - Create sustainable innovation economic development model
- Federal laboratories, R&D centers
  - Liaison to innovation assets/entrepreneurship





# Role of 60+ Partners (cont.)



- Education/academic partners
  - Employer/university consortium participant
  - Curriculum, program development
  - Apprenticeship and internship program development
  - Hands-on “real-world” demos, pilots
  - Seek understanding of “flat world” economy
- Other partners
  - Provide expertise for specific grant effort elements



# Established Need

- Entrepreneurship seriously under potential
  - Wealth of world-class innovation assets
  - No area within the Corridor in top 25 of REI\* index
- Staggering manufacturing job loss
  - Manufacturing still largest in U.S., but job loss between 1990 and 2004 = 438,500 jobs
  - Jobs retained still at risk due to globalization
- Inadequate technical workforce to meet needs
  - Graying of scientists, engineers
  - Universities not attracting enough technical students





# Strategies for System Transformation



- Rapid transformation of innovation to entrepreneurship (commercialization)
- Transformational renewal of manufacturing and supply chain to ensure global competitiveness
- Realignment of education and workforce development/training to produce world-class innovation-oriented 21<sup>st</sup> Century technical workers



# Projects/Types of Activity

- Innovation Support
- Industrial Rejuvenation
- Talent Development
- Sustainability Projects





## Innovation Support (sampling)



- Professorial/grad student fed lab internships
- SBIR Phase II Awardee entrepreneurial training
- Identification/characterization of targeted, high-impact future innovation career paths (e.g. nanotechnology, optics, robotics); regional training strategy





### Industrial Rejuvenation (sampling)

- Identification of global competitiveness skills within manufacturing, supply chain
- Identification of regional training resources
- Define requirements/program outcomes for “Smart Supplier” program; foster development of smart supplier training
- Manufacturing technician training



# Talent Development (sampling)

- Labor needs assessment
- Development of two pilot hands-on “real-world” university apprenticeships
- Creation of two new pilot high school science academies
- Employer/university consortium
- Pilot retraining of dislocated software workers
- Accelerated credentialing of math/science teachers
- Pilot community college mechatronics degree; guidelines for pre-engineering certification, university transfer program





# Sustainability Projects



- Economic development model/resource tool featuring innovation support methodology
- Sustainable inventory of key space, science, R&D assets within Corridor
- WIB “Learning Collaboratory”
- WIB Resource Manual: development of 21<sup>st</sup> Century knowledge and innovation workers



## CSA Goals/Impacts for WIRED

- INNOVATION SUPPORT

- Create new companies and high-skill, high wage jobs by designing a replicable and sustainable “innovation support architecture” to increase innovation/entrepreneurship



- INDUSTRIAL REJUVENATION

- Improve international competitiveness of the region’s supply chain by developing and executing a “Smart Supplier Strategy” that supports manufacturers, small businesses and entrepreneurs in adapting to the global manufacturing transformation





## CSA Goals/Impacts of WIRED

- TALENT DEVELOPMENT

- Accelerate development of highly skilled 21<sup>st</sup> Century talent pool by creating pilot projects and activities capable of supporting a continuum of math, science and engineering education (K-U) and lifelong learning relevant to the 21<sup>st</sup> Century technical worker



[www.californiaspaceauthority.org/html/wired](http://www.californiaspaceauthority.org/html/wired)