

Date of Hearing: January 5, 2010

ASSEMBLY COMMITTEE ON JOBS, ECONOMIC DEVELOPMENT AND THE
ECONOMY

V. Manuel Perez, Chair

AB 1420 (V. Manuel Perez) – As Amended: January 4, 2010

SUBJECT: Innovation Based Economies

SUMMARY: Requests the California Council on Science and Technology (CCST) and the California Spaceport Authority (CSA) to seek funding to expand their assessment of the state's innovation infrastructure capacity including university research facilities, private research parks, manufacturers and incubators.

Further, the bill authorizes the CCST and the CSA to collaborate with public and private colleges and universities, corporations with research capacity, economic development organizations, investment and finance professionals, and the California Community Colleges. The final assessment may include the following:

- 1) A directory of public and private innovation facilities and infrastructure in the state;
- 2) A list of innovation-related national and global alliances;
- 3) A comparison of the state's current resources to those that would be necessary to remain globally competitive; and,
- 4) A list of recommendations on how to access public and private resources to meet the state's innovation needs.

Additionally, the bill requests that the final assessment be presented in a format that allows for its display on the Internet and facilitates its use by potential applicants for green and other innovation-based federal funding.

EXISTING LAW

- 1) Establishes the CSA to, among other things, pursue grants from the federal government or from private businesses, foundations, or individuals, for California space enterprise activities and to identify science and technology trends that are significant to space enterprise and the state and act as a clearinghouse for space enterprise issues and information.
- 2) Recognizes the establishment of the CCST by California academic research institutions, including the University of California, the University of Southern California, the California Institute of Technology, Stanford University, and the California State University. The purpose of CCST is to, among other things, report on science and technology-related public policy issues, including identification of long-range research needs for sustaining the state's economic competitiveness, to assess private sector/university technology transfer capacity; and to assess the research and development capacity of the state to retain vital industries and scientific talent.

FISCAL EFFECT: None

COMMENTS:

- 1) Purpose: The author states that an important element to California's long-term economic growth is its continuing investment in innovation-based industries. Historically, this has been an area in which California has enjoyed a comparative advantage, not only relative to other states but to other regions of the world. In the last decade, however, other states, such as Massachusetts, and other countries in the world, such as Singapore, have begun to implement more targeted economic development activities to attract innovation-based industries.

These changes, the author states, are a cause for concern and suggest that California cannot be passive or assume that what was true in 1990 will continue to be true in the 21st century. Over the last decade, significant changes have occurred in the way new technologies are created and commercialized. Traditional regional clusters are giving way to more globally based "knowledge networks" formed and enabled by technology, rather than geography.

The author states that this shift toward technology-based networks requires that the state have a better understanding of its own innovation assets. AB 1420 calls on the CSA and the CCST to continue mapping the state's innovation resources (as detailed below) and make recommendations on how to strengthen the state's role as a leader in science and technology in the changing innovation economy.

- 2) The California Innovation Corridor and Asset Mapping: In 2007, the CSA in partnership with the California Labor and Workforce Development Agency was awarded a \$15 million/3-year grant from the federal Department of Labor for the development of the "California Innovation Corridor" (Corridor). The purpose of the Corridor project is to "drive entrepreneurship, global manufacturing competitiveness, and 21st century workforce" within the 13 participating counties, including San Diego, Orange, Los Angeles, San Bernardino, Riverside, Ventura, Santa Barbara, San Luis Obispo, Kern, Monterey, Santa Cruz, Santa Clara, and Alameda.

The Corridor project was designed and implemented through the collaborative efforts of over 65 public and private stakeholder groups including CCST, Stanford University, Lockheed Martin Space Systems Company, and the San Bernardino County Workforce Development Board. Here is the link to California Innovation Corridor webpage:

<http://www.innovatecalifornia.net/>

One of several initiatives of the Corridor was the Innovation Asset Mapping Inventory (Inventory) project. The purpose of the project was to inventory key innovation assets in such a way as to assist regional partners in gaining a greater understanding of the organizational assets available to foster innovation and entrepreneurship and guide workforce development.

To this end, the project inventoried innovation-based assets owned and/or managed by the private sector, academia, and government, such as federal laboratories and industry technology research resources. Information from the Inventory was then developed as separate innovation asset profiles and incorporated into a searchable online platform where

they are accessible to economic and workforce development professionals, education stakeholders, and the public. Through this online platform, known as the Innovation Asset Mapping Portal http://www.connectory.com/portal_home.aspx?portalid=5, one can access over 250 profiles.

According to CSA, the Innovation Asset Mapping Portal has proven to be very useful for both public and private entities interested in engaging with entities within the Corridor. With this success, a question arises as to whether other areas of the state may benefit from being included in the Inventory.

- 3) A look at California's historical economy: California is the one of the largest and most diversified economies in the world with a state gross domestic product (GDP) of over \$1.8 trillion in 2008. If California were an independent nation it would rank as the eighth largest economy in the world.

The state's significance in the global marketplace results from a variety of historical factors, including: its strategic west coast location that provides direct access to the growing markets in Asia, Mexico and South America; its economically diverse regional economies; its large, ethnically diverse population, representing both a ready workforce and significant consumer base; its access to a wide variety of venture and other private capital; its broad base of small- and medium-sized businesses; and its culture of innovation and entrepreneurship, particularly in the area of high technology.

As the largest state in the U.S., California is home to 12.1% of the nation's population and 11.6% of all jobs. Overall job growth in the state from 2001 to 2006 was 6.1%. Growth in California GDP outpaced the growth rate of the nation as a whole, 33.9% for California as compared to the US at 30.4%. Among other economic distinctions, the state leads the nation in export-related jobs, small business development, and business start-ups, in general. The chart below provides additional details on California's industrial base by listing the largest, fastest, most competitive, and highest-paid wages by industry type.

California Industry Comparisons				
	Largest Industries in California Based on Revenues (2006)	Fastest Growing Industries (2001-06)	Industries with Higher Concentration of Jobs Relative to the Nation (2006)	Industries with Highest Average Wage (2007)
1	Food Services & Drinking Places	Wholesale Electronic Markets, Agents, & Brokers	Support Activities for Agriculture & Forestry	Securities, Commodity Contracts, & Other Investments
2	Professional, Scientific & Technical Services	Private Households (includes households that employ people, such as cooks, maids, gardeners, caretakers)	Private Households (includes households that employ people, such as cooks, maids, gardeners, caretakers)	Oil & Gas Extraction
3	Administrative Support Services	Other Information Services	Motion Picture & Sound Recording Industries	Lessors of Nonfinancial Intangible Assets
4	Specialty Trade Contractors	Funds, Trusts, & Other Financial Vehicles	Apparel Manufacturing	Internet Service Providers, Web Search Portals, & Data Processing Services

5	Ambulatory Health Care Services	Construction of Buildings	Crop Production	Petroleum & Coal Products
6	Hospitals	Credit Intermediation & Related Activities	Computer & Electronic Product Manufacturing	Performing Arts, Spectator Sports
7	Merchant Wholesalers, Durable Goods	General Merchandise Stores	Beverage & Tobacco Product Manufacturing	Computer & Electronic Product Manufacturing
8	Food & Beverage Stores	Beverage & Tobacco Product Manufacturing	Internet Publishing & Broadcasting	Funds, Trusts, & Other Financial Vehicles
9	Credit Intermediation and Related Activities	Specialty Trade Contractors	Performing Arts, Spectator Sports	Utilities
10	Computer & Electronic Product Manufacturing	Motion Picture & Sound Recording Industries	Electronics & Appliance Stores	Pipeline Transportation
Source: California Economic Profile, Economic Strategy Panel, August 2008				

- 4) Drivers in California's future economy: For decades, California has been known as a place where innovation and creativity flourishes. A 2007 study on California's global competitiveness, prepared by the Bay Area Council Economic Institute, identified eight key industry clusters, listed below, and recommended that the state focus future investments toward these industries in order to maximize the use of state resources.

Dominant industry clusters include:

- a) Professional business and information services
- b) Diversified manufacturing
- c) Wholesale trade and transportation
- d) High-tech manufacturing

Emerging industry clusters include:

- a) Life science and services
- b) Value-added supply chain manufacturing and logistics
- c) Cleantech and renewable energy
- d) Nanotechnology

The study also found that, based on the state's historical strengths identified above, that the state was also uniquely positioned to be a preferred global partner of certain regions of the world, particularly those interested in innovation, science, and technology. The study, however, also stated that California was facing significant challenges from the global redistribution of manufacturing and services and the growing talent pools in other countries.

While the global recession may have slowed down growth, the newly emerging economies of China, India, and Singapore have already made considerable investments in research and development. Emerging economies around the world have strived to become leaders in innovation and not merely "copycat" economies of the United States. As one Massachusetts Institute of Technology report states, "It is not out of the question that they may soon be able to 'leapfrog' developed centers of innovation with new innovations of their own."

While these dynamics pose challenges to current leading technology centers, they also offer California new opportunities for collaboration and cooperation. The state is already engaged in academic and research partnerships with Canada and Iceland on renewable energy and other technologies. The University of California at San Diego has a multi-year manufacturing initiative with Mexico, supporting economic growth on both sides of the border.

These types of partnership efforts, however, have not yet been brought forward into a broader economic development framework and are too often treated as one-off initiatives. AB 1420 will assist the state in examining its innovation-based infrastructure assets from a statewide perspective. Enormous potential exists in research, development, and product manufacturing by capitalizing on cross-border initiatives, if California can successfully transition to the new and more highly connected economic world of the 21st Century.

5) Related Legislation:

- a) ACR 162 (Farr): This resolution encouraged the establishment of the CCST by California academic research institutions, including the University of California, the University of Southern California, the California Institute of Technology, Stanford University, and the California State University. Status: Approved by both Houses, Res Chapter 148, Statutes of 1988
- a) AB 699 (Portantino and V. Manuel Perez): This bill would have updated the requirements for the development of a State Economic Development Strategy, including key elements related to innovation-based industries. Status: Held in the Assembly Appropriations Committee in May of 2009.
- b) AB 1606 (Arambula and Lieu): This bill would have required the development of a strategy to increase private investment in California's historically underserved communities, also known as emerging domestic markets. The bill also centralized the state's existing economic development programs with the Economic Strategy Panel, in order to improve their coordination and impact on California communities. Status: Vetoed by the Governor in 2007.
- c) AB 1916 (Portantino, Arambula, Price, Salas, and Caballero): This bill would have updated the membership and requirements of the California Economic Strategy Panel and required that the next State Economic Development Strategy be submitted to the Legislature by January 1, 2010. Status: Vetoed by the Governor in 2008.
- d) AB 2595 (Arambula): This bill would have required the Secretary of Labor and Workforce Development and the California Workforce Investment Board to establish a Logistics Worker Training Initiative for the purpose of increasing California workers' competitiveness within the global manufacturing value chain. The outcome of this initiative was to have a state strategy to support regionally based workforce intermediaries that provide training in advanced logistical systems, especially in the transportation and goods movement sectors. Status: Vetoed by the Governor in 2007.
- e) AB 2711 (Portantino, Arambula, Price and Salas): This bill would have required the Secretary of the Business, Transportation and Housing Agency to develop a comprehensive state technology and innovation strategy to guide future state expenditures and activities. Status: Held in the Assembly Committee on Appropriations in 2008.
- f) AB 2860 (Lieu): This bill would have renamed the California Commission on Industrial Innovation (Commission) the California Commission on Manufacturing Competitiveness and Innovation, specified the Commission should avoid recommendations that could

diminish certain worker protections, and made conforming changes to the enabling statute. Status: Held in the Senate Appropriations Committee in 2007.

- 6) Double Referral: The Assembly Committee on Rules referred this measure to JEDE and the Assembly Committee on Higher Education (HE). Should this measure receive a favorable vote recommendation at the JEDE hearing, it will be referred to HE for further action.

REGISTERED SUPPORT / OPPOSITION:

Support

Assembly Committee on Jobs, Economic Development and the Economy (Sponsor)

Opposition

None received

Analysis Prepared by: Toni Symonds / J., E.D. & E. / (916) 319-2090