ECONOMIC DEVELOPMENT

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FOSTERING PROSPERITY: LEVERAGE THE INNOVATION ECOSYSTEM FOR SUSTAINABLE ECONOMIC DEVELOPMENT

Requested Actions:

- Invest in the following innovation hubs, which will have impacts across the region-wide innovation ecosystem, including for needed infrastructure:
 - Aggie Square in the City of Sacramento
 - o The Plant@ California
 - The Woodland Research and Technology Park
- Invest in regional Entrepreneurial Support Organizations building our food, health, and life sciences innovation ecosystem by mentoring entrepreneurs, accelerating commercialization, managing wet lab space, providing access to capital, fostering networks of partners and advisors, and engaging industry.
- Advance our region as a key recipient for federal funding to support tech hubs and other R&D investments and seek appropriations for a second round of EDA-funded tech hubs supported by the Administration and Congress.
- Support workforce development and training in plant and life sciences through industry-led partnerships with the region's community college and four-year institutions.



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California's Capital Region is a hub for economic growth fueled by inclusive economic development and sustainability. The region's well-known research and innovation capabilities in agricultural and biological sciences, driven by UC Davis and the region's agrifood tech and life sciences industries, incubators, labs, and entrepreneurs, offer cross-cutting potential for capturing even greater economic benefit across industries.

These innovations are contributing to solutions for major global challenges of human, animal, and environmental health. The region's economic strategy includes strengthening this important industry cluster, capitalizing on new innovation assets such as the UC Davis-led Aggie Square in the city of Sacramento, the Woodland Research and Technology Park, and The Plant@ California, led by the University of California

Agriculture and Natural Resources (UC ANR) and uniting the food, ag, tech, and bio industries; securing funding to advance key projects; and bridging the quality job gap. Emphasizing the need for additional tools and ecosystem cohesion to maximize commercialization and cluster-building, this strategic plan aims to create high-quality jobs and lead the region to the next level of impact statewide and nationally.

Background

The Capital Region is at a pivotal moment to build upon existing assets, momentum, and a shift towards a more climate resilient, inclusive, and diverse economy. In 2018, the Brookings Institute conducted an economic assessment for the six-county region that identified key areas for economic growth, leading to our region's 2020 EDA-funded Comprehensive Economic Development Strategy (CEDS), The Prosperity Strategy. In 2023, the State of California awarded the region a California Jobs First (formerly Community Economic Resilience Fund) grant to build a collaborative strategy for inclusive growth in the Capital region as part of a major investment in 13 regions across the state to foster the transition toward more resilient and equitable growth. In addition, the Capital Region received one of 13 designations to become an Inclusive Innovation Hub designated by the California Office of the Small Business Advocate and their Accelerate CA program. The Brookings Institute analyzed the region's post-Covid economy and provided recommendations to increase quality jobs through more inclusive pathways and increase opportunities for disinvested communities.

Brookings found that the region needs to produce 335,000 quality jobs to support the 38% of our population who are struggling to make ends meet. They recommended a focus on four key tradeable sectors to produce quality jobs in sustainable industries: AgTech and Biomedical Sciences, Precision Manufacturing, Working Lands, and Advanced Business Services. Investment is needed in talent, innovation, small business and entrepreneurship, and infrastructure to drive cluster growth. The innovation analysis documented that UC



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Davis is a global research powerhouse, but that commercialization should be strengthened so the cluster meets its growth potential.

UC Davis sits at the heart of the region's innovation ecosystem. It is a top-tier (R-1) land grant university and federally designated Hispanic-Serving Institution (HSI) that produces 90% of the region's research activity. The College of Agricultural and Environmental Sciences and School of Veterinary Medicine rank first in the nation and second globally. UC Davis ranks third in the nation for agricultural and biological engineering and is among the top 20 universities in the country for external research funding (more than \$1 billion). Areas of expertise include bioenergy, water energy, food for health and wellbeing, microbiology and molecular genetics, molecular and cellular biology and plant biology.

The presence of multinational life-science heavyweights such as AstraZeneca, Bayer Crop Science, Sanofi, and ThermoFisher Scientific; a major international seed cluster; and the high levels of NIH funding secured by UC Davis researchers each year indicate the potential of this innovation-intensive cluster.

Bringing a life sciences innovation from idea to product involves a lengthy R&D process, in part because products must meet stringent standards for human consumption and use. Ensuring that high-potential startups have sufficient resources to survive until they are ready to go to market is a vital concern in this sector.

UC Davis is the future home of Aggie Square, a 1.1 million-square-foot district in the city of Sacramento focused on translating food and biotechnology innovations into needed products and services. Once complete,

Aggie Square will offer needed wet lab facilities, startup and scale-up space for food bioeconomy entrepreneurs, offices, mixed-use space, housing, and other amenities. A Community Benefits Partnership Agreement among UC Davis, the City of Sacramento and developer Wexford Science & Technology will ensure that Aggie Square also benefits local communities and boosts inclusive economic growth. The District is slated to open its doors in early 2025, with students moving into Aggie Square residential halls later that fall.

Two other planned projects will further expand the region's innovation capacity. The Plant@California will create a new node for food, agriculture, and health R&D. Led by the University of California Agriculture and Natural Resources (UCANR) in partnership with UC Davis Innovation Institute for Food and Health and other public and private sector organizations, this catalytic investment will accelerate commercialization by providing the facilities and programming needed for early-stage firm scale-up, open innovation, and corporate research, all within close proximity to UC Davis. The Plant is in the process of securing federal funds for the construction design and planning phase; as a whole, the entire project will require significant investment. The Plant will anchor the new Woodland Research and Technology Park, a 350-acre site that will be a major asset for the region, with dedicated research, innovation, and manufacturing facilities that will be built on the City



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of Woodland's Food Front Initiative. The project is moving forward, though build-out will require improvements to utilities and roadway infrastructure in and around the Park.

In today's challenging investment environment, reduced access to venture capital ultimately prevents needed innovations from reaching the market. Connecting innovators with proof-of-concept funding, affordable lab space, back-office assistance, and mentorship can help startups advance to the next stage and make them more attractive to potential investors.

UC Davis Venture Catalyst uses grant support, technical assistance, and its extended network to promote innovation-intensive entrepreneurship among university students, staff, faculty, and alumni. Demand for proof-of-concept funding far outstrips the resources available. Venture Catalyst awards between five and nine proof-of-concept grants each year, even though half of the 40-odd applications receives merit funding.

The Growth Factory, a regionally focused early-stage venture fund with an accompanying nonprofit ESO, has made 17 investments in companies emerging from UC Davis in the last 2 years. They have also built bespoke programming along with a robust national advisor and investor network to support companies going to market in highly regulated industries.

Nonprofit ESO AgStart works with high-potential entrepreneurs in the fields of agriculture, food, and health. Its wet lab facility, The Lab@AgStart, provides affordable shared equipment and lab space for early-stage bench research. This facility also features a food lab for researchers testing ingredients and prototyping food products. EDA's investments in AgStart and UC ANR's The Vine – the Verde Innovation Network of food and agtech incubators and accelerators across the state - have provided a strong foundation for future investment in and growth of this cluster.

Sources:

- California Jobs First Capital Region Regional Plan, Part 1 Report, Prepared for Valley Vision, December 2023
- Greater Sacramento Life Science Report 2023, Greater Sacramento Economic Council, Colliers and CBRE