The Fresno-Merced Region is the unrivaled food production region of the country

25% of the nation’s food is produced in California’s vast Central Valley\(^1\) using only 1% of total U.S. farmland

60% of the nation’s fruits and nuts and 30% of its vegetables are produced here, as the region has a 10x to 30x greater industry concentration relative to the rest of the country

$70B in total revenue is the annual output of region’s agriculture economy with over 13,500 farming enterprises producing over 350 commodities

---

1. Fresno-Merced Region includes Fresno, Madera, Merced, Tulare and Kings Counties in California’s Central Valley
   Source: U.S. Department of Agriculture Census of Agriculture
However, the region experiences a slow-growing economy that struggles to spur, adopt, and commercialize innovation.

**Economic hardship**
- 22% of the residents in the region live below the federal poverty line.
- Region ranks 87th out of the top 100 U.S. metros in GDP per capita and experiences the 3rd worst food hardship in the U.S.

**Social inequalities**
- Region’s economy ranks 268 out of 274 large cities in the nation for economic inclusion.
- The unemployment rate above national average (8.1% vs 6.2% in 2021), with ~40% of the unemployed being of Hispanic origin.

**Environmental degradation**
- Region suffers severe environmental degradation, which threatens the stability and resiliency of the Central Valley – and the nation’s independent food supply!
The Opportunity: Climate-Smart Agrifood Technology and Engineering Cluster

- **Develop and commercialize solutions** for climate-adaptive food production needed locally and globally and access the $900B market for food technology
- **Create quality jobs** across all skill levels for Central Valley residents
- **Engage small farmers**, mobile food vendors, and cottage food entrepreneurs in tech development, tech adoption, and new markets access

### Target Technologies

<table>
<thead>
<tr>
<th>Digitalization and Data Science</th>
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<tbody>
<tr>
<td>- Predictive Analytics</td>
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<tr>
<td>- Artificial Intelligence</td>
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<tr>
<td>- Edge Computing</td>
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<td>- Environmental Remote Sensing</td>
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<tr>
<th>Mechatronics</th>
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<tbody>
<tr>
<td>- Cyberphysical Systems</td>
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<tr>
<td>- Automation and Robots</td>
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<tr>
<td>- Internet of Things</td>
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<td>- Digital Twins</td>
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<tr>
<th>Equipment and Manufacturing</th>
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<tr>
<td>- Agriolaficcs</td>
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<tr>
<td>- Energy-Water Systems</td>
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<tr>
<td>- Biomass Processing</td>
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<td>- Complex Logistics</td>
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<tr>
<th>Systems Integration and Implementation</th>
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<tbody>
<tr>
<td>- Test Beds and Validation for Third-Party Products</td>
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<tr>
<td>- Small and Mid-size Producer Problem-Solving, Information, and Access</td>
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<tr>
<td>- Online Marketing Platforms</td>
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<tr>
<td>- Aggregation &amp; Distribution Systems</td>
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</tbody>
</table>

### Target Applications

<table>
<thead>
<tr>
<th>Precision Agriculture</th>
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<tbody>
<tr>
<td>- Precision irrigation and nutrition</td>
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<tr>
<td>- Precision pest management</td>
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<tr>
<td>- Soil health management</td>
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<tr>
<td>- Carbon monitoring</td>
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<thead>
<tr>
<th>Farm Automation</th>
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</thead>
<tbody>
<tr>
<td>- Precision spray &amp; weeding</td>
</tr>
<tr>
<td>- Robotic harvesting</td>
</tr>
<tr>
<td>- Precision thinning &amp; pruning</td>
</tr>
<tr>
<td>- Electric/autonomous tractors</td>
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<tr>
<td>- Dairy and livestock robotics</td>
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<tr>
<th>Smart Food Processing</th>
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<tbody>
<tr>
<td>- Real-time food safety</td>
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<tr>
<td>- Plant automation</td>
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<tr>
<td>- Waste upcycling</td>
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<td>- Energy recapture</td>
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<td>- Emissions monitoring</td>
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<tr>
<th>Small-Scale Farm and Food Tech</th>
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</thead>
<tbody>
<tr>
<td>- Handheld and miniaturized equipment</td>
</tr>
<tr>
<td>- Small field robots</td>
</tr>
<tr>
<td>- Farm management software</td>
</tr>
<tr>
<td>- Low cost and biodegradable sensors</td>
</tr>
<tr>
<td>- Mobile apps for small food vendors</td>
</tr>
</tbody>
</table>

### Knowledge Creation, Feedback, and Scaffolding >> Market Research & Cost-Benefit Analyses
Overview of the ‘F3’ Strategy

1. iCREATE
   - Integrator, navigator and champion of the cluster; tech-based economic development
   - Goals: Diversified regional economy; higher quality jobs; increased exports; sustainable food production
   - Complementary Investment: CA High Speed Rail - Connecting the region to Silicon Valley’s innovation resources

2. Local Farm & Food Innovation
   - Industry adoption and investment in small BIPOC farms & entrepreneurs
   - Goals: Inclusive, resilient local food systems; small business growth; small-to-large producer-informed innovation; sustainable tech adoption

3. Opportunity Walkway
   - Pedestrian access to iCREATE and jobs in Region’s economic center

4-6. AgTEC
   - Regional skilled workforce pipeline ready for the future
   - Goals: Industry-recognized skilled talent pipeline; removing barriers to upskilling; wage growth; creating & filling jobs

7. Partner Integration & Collective Impact
   - Coordination of lead applicants, community engagement & measurement and evaluation
   - Goals: Integrated, leveraged network of civic actors in support of cluster
<table>
<thead>
<tr>
<th><strong>F3 Component Project</strong></th>
<th><strong>Project Descriptions</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong> iCREATE</td>
<td>- Agrifood Tech and Engineering Cluster hub with 4 pillars (Industry Leadership; Innovation; Commercialization; Talent Pipeline Coordination) that catalyze innovation, 3,500 jobs and &gt;$250M in private investment</td>
</tr>
<tr>
<td><strong>2</strong> Local Farm &amp; Food Innovation</td>
<td>- Driving inclusive economic growth of small-to-large scale farmers and food entrepreneurs, achieving a 40% adoption rate of new economically, environmentally sustainable technologies and key contributor to $250M in private investment</td>
</tr>
<tr>
<td><strong>3</strong> SIEMBRA Food Fund</td>
<td>- $4.5M revolving loan fund to expand BIPOC-owned farms and food businesses</td>
</tr>
<tr>
<td><strong>4</strong> Ag-TEC Workforce Initiative</td>
<td>- Regional workforce collaborative of 8 community colleges building industry-aligned agrifood tech pathways for &gt;8,000 workers, including 4,000 incumbent workers, increasing salaries by 60%</td>
</tr>
<tr>
<td><strong>5</strong> Reedley Innovation Center</td>
<td>- 9,000 SF for industry, tech, and workers to test and demonstrate technologies focused on grapes, citrus, and stone fruit</td>
</tr>
<tr>
<td><strong>6</strong> Merced Innovation Center</td>
<td>- 15,000 SF for industry, tech, and workers to test and demonstrate food processing systems</td>
</tr>
<tr>
<td><strong>7</strong> Opportunity Walkway</td>
<td>- Public walkway connecting disinvested neighborhoods to jobs &amp; opportunity in Downtown Fresno, the region’s economic center</td>
</tr>
<tr>
<td><strong>8</strong> Partner Integration</td>
<td>- Collective impact of F3 investments through integration, community engagement, and shared measurement and evaluation</td>
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</tbody>
</table>
# F3 Coalition

<table>
<thead>
<tr>
<th>Partner Category</th>
<th>Role</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Industry Partners</strong></td>
<td>Volunteer leadership of iCREATE, AgTEC, and Small Farm Tech Innovation Alliance</td>
<td>Agricultural associations, co-ops, and large employers representing 15,000 farm and food enterprises with more than 430,000 employees – Agriland, Almond Board, Blue Diamond Growers, California Citrus Mutual, California Fresh Fruit Association, California League of Food Processors, HMC Company, Western Ag Processors, Western Growers Association, Wonderful Company</td>
</tr>
<tr>
<td><strong>Anchor Institutions</strong></td>
<td>Founding iCREATE board members (501c3)</td>
<td>California Department of Food and Agriculture, Governor’s Office of Business &amp; Economic Development, California State University-Fresno, Central Valley Community Foundation, UC Ag &amp; Natural Resources, University of California, Merced</td>
</tr>
<tr>
<td><strong>Component Project Lead Applicants</strong></td>
<td>iCREATE Lead</td>
<td>University of California, Merced (UCM)</td>
</tr>
<tr>
<td></td>
<td>AgTEC Lead</td>
<td>Merced College</td>
</tr>
<tr>
<td></td>
<td>Local Farm and Food Innovation Lead</td>
<td>University of California Ag and Natural Resources (UC ANR)</td>
</tr>
<tr>
<td></td>
<td>AgTEC Construction – Merced College Lead</td>
<td>Merced College</td>
</tr>
<tr>
<td></td>
<td>AgTEC – Reedley Construction Lead</td>
<td>Reedley College</td>
</tr>
<tr>
<td></td>
<td>Opportunity Walkway Lead</td>
<td>City of Fresno</td>
</tr>
<tr>
<td></td>
<td>SIEMBRA Fund Lead</td>
<td>Fresno Area Hispanic Foundation</td>
</tr>
<tr>
<td></td>
<td>Partner Integration &amp; Collective Impact Lead</td>
<td>Central Valley Community Foundation (CVCF)</td>
</tr>
<tr>
<td><strong>Implementation Partners</strong></td>
<td>iCREATE</td>
<td>Fresno State; UC ANR; UCM</td>
</tr>
<tr>
<td></td>
<td>AgTEC</td>
<td>Clovis Community College, College of the Sequoias, Fresno CC, Madera CC, Merced College, Reedley College, West Hills College – Coalinga, West Hills College – Lemoore, California Farmworker Foundation</td>
</tr>
<tr>
<td></td>
<td>Local Farm and Food Innovation</td>
<td>Community Alliance with Family Farmers, Cultiva La Salud, Fresno Metro Ministry, UC ANR</td>
</tr>
</tbody>
</table>
F3 Budget

iCREATE
EDA: $40M
MATCH: $6M
TOTAL: $46M

Local Farm & Food Innovation
EDA: $26.1M
MATCH: $6.1M
TOTAL: $32.2M

AgTEC Workforce Initiative
EDA: $32M
MATCH: $7.5M
TOTAL: $39.5M

Partner Integration & Collective Impact
EDA: $1.9M
MATCH: $1M
TOTAL: $2.9M

F3 PROJECT TOTAL
EDA: $100M
MATCH: $20.6M
TOTAL: $120.6M
# Overview of Outcomes

<table>
<thead>
<tr>
<th>Project</th>
<th>Goals/Intended Outputs</th>
<th>Outcomes</th>
</tr>
</thead>
</table>
| **iCREATE**                   | Establish 75 industry-academic partnerships, developing 100 ag tech innovations, of which 40% will be commercialized. Attract $250M non-public sector capital dollars and coordinate 3.5K new research and job opportunities, including 2.5K created for BIPOC and low-income students and incumbent workers | • Broad food production industry alignment and engagement, including > 200 dues-paying, committed industry champions contributing to R&D agenda and activities, conferences, exchanges, tech development and demonstration within 4 years  
• Continuously growing portfolio of ~100 industry and university-driven research projects within 4 years, and a robust entrepreneurship ecosystem with 50+ new businesses  
• Growing investment channel with 15 investors partnered, 60 engaged within the first 4 years, ensuring a consistently high-level of funding to drive cycles of innovation  
• Industry-aligned, responsive and inclusive middle and high skilled workforce, including a sustainable internship / fellowship model attracting >300 K-14 and university students to full-time careers in agriculture-related industries in the region |
| **Local Farm and Food Innovation (LFFI)** | Drive industry technology adoption enabling 40% commercialization to 1,000 growers and ranchers. Provide support to 3,000 small-scale and BIPOC farms & food businesses | • Regional brand contributes to $250M in annual investments to support a vibrant local food economy, including >1,000 growers  
• Marketing training and services delivered to >1000 local small-scale farmers, producers, and agrifood business entrepreneurs  
• Increases regional profitability by 30% across crop production systems and scale  
• Achieves a 40% adoption rate of new sustainable technologies available through the tool library, demonstrations, and co-developed with grower communities |
| **AgTEC**                     | Nearly double the annual workforce pipeline to over 8,400 job-ready workers in four years, enabling an increase in average wages of 60% for the workforce                                                                         | • Increased demand-based education regionally through establishing a short-term interdisciplinary certificate in Applied Agriculture Systems across all 8 colleges based on in-demand industry skills  
• Reskilling and upskilling of ~4K incumbent workers through Competency Based Education taught by college faculty and “worker-instructors” through flexible modules (e.g., online, incumbent workforce training units) positioning workforce to meet rapidly changing needs  
• Improved access to talent pipeline for industry and higher quality jobs for incumbent and future workers |
Partner Integration & Collective Impact

Regional Assets
Across all projects: 5m acres of farm, higher ed, industry associations, test farms, regional “know how”, etc.

Industry Membership
Robotics and automation, digital tech, food energy and water systems, Fresh to Finished Food Production

Partner Integration & Collective Impact
Integration, community engagement and shared M&E

iCREATE
501(c)3 convened by CDFA, UCM, UCANR, FSU, GoBiz
Additional board seats for SFTIA, AgTEC, Industry

Local Farm & Food Innovation (LFFI*)
Agroecology Hub
Del Valle

F3 Network

Talent Development Task Force
(HR leader and worker orgs)

Ag-TEC Workforce Collaboration
MOU with 8 Community Colleges

Small Farm Tech Innovation Alliance
Mobile Food Vendor Association
Cottage Food Entrepreneurs
Capital Access SIEMBRA Fund
Food to Share Neigh. Food Hub
Future Neigh. Food Hub #2
Future Neigh. Food Hub #3
Food Security
Local Small Business Network
The ‘F3 Initiative’ is part of the broader Fresno DRIVE strategy aimed at building an inclusive, vibrant, and sustainable economy.

As part of Fresno Drive, the F3 Initiative benefits from 150+ organizations and institutions representing a diverse cross-section of civic, community, and business stakeholders in the Greater Fresno Region.

**Partners Include:**

- Skilling, Reskilling, and Upskilling
- Pre-Conception to Five
- Integrated Data System
- College Completion+: Enhanced Existing System
- College Completion+: Integrated K-16 System
- Teacher Workforce
- UCSF School of Medicine Fresno Branch Campus
- Fresno Attracts Talent
- Wealth Creation in Communities of Color
- Downtown 2.0
- Fresno Opportunity Corridor
- Civic Infrastructure Network
- Permanent Affordable Housing
- Fresno-Merced Future of Food Innovation Corridor (F3 Initiative)
- Betting on Small Businesses Owned by Women and People of Color
- Second Office Fresno
- Next Generation Aviation Academy, Working Group, and Testing Lab
- Water for All
- F3 Initiative
- iCREATE
- Ag TEC
- Small Farm & Food Innovation
- Opportunity Trail
- SEMBRA Food Fund
PROJECT SUMMARY:

California’s Central Valley is a food-producing powerhouse with 13,650 farming enterprises generating 350 commodities annually valued at $70B and an emerging hub for the American research enterprise. However, the five-county region remains one of the most persistently impoverished in the U.S. because its commodity-driven economy does not create enough quality jobs to retain local talent and spur innovation. Systemic barriers to innovation and investment prevent the region from benefiting from its human talent and globally recognized food system assets. Data and qualitative analyses confirm a competitive niche and global opportunity for building the Central Valley “Climate-Smart Agrifood Technology and Engineering Cluster” for products and services traded outside the region, drawing investment, and generating quality jobs for all skill levels. Missing is a cluster strategy with a “center of gravity” to organize regional assets intentionally into a market-driven ecosystem. Following international best-practices, iCREATE fills this gap as a functional hub for implementation. With a small, enabling team that will integrate, navigate, and champion the cluster, iCREATE centers on four programmatic pillars: (1) Industry Leadership and Global Identity; (2) Innovation; (3) Commercialization and Business Acceleration; and (4) Talent Pipeline Coordination. iCREATE is a public-private partnership anchored by industry, two universities, a statewide research and extension consortium, 2,400 acres of test farms, and $32M in state investment. EDA funding seeds proof-of-concept economic activity that catalyzes other investments and results in 75 industry-university partnerships; 100 agrifood tech innovations with a 40% commercialization rate; $250M in private investment; and creates and fills 3,500 quality jobs.

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<thead>
<tr>
<th>Pillars</th>
<th>Goals</th>
<th>Outcomes</th>
<th>Data collected</th>
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<tbody>
<tr>
<td>Industry Leadership and Global Identity</td>
<td>Serethe cluster navigator for businesses, entrepreneurs, and investors into the region, building the global identity of the region, enabling F3 to become a nationally recognized innovative ag tech cluster</td>
<td>• Broad food production industry alignment and engagement, including &gt; 200 dues-paying, committed industry champions contributing to the R&amp;D agenda and activities, conferences, exchanges, tech development and demonstration within 4 years</td>
<td>• Employer profiles (e.g., employees, focus areas)</td>
</tr>
<tr>
<td>Innovation</td>
<td>Develops an innovation pipeline of 75+ university-industry partnerships, producing ~100 frontier &amp; applied ag tech products &amp; services</td>
<td>• Continuously growing portfolio of ~100 industry and university-driven research projects within four years, with $2.5M secured in complementary investments</td>
<td>• Inventory database of industry-university partnerships</td>
</tr>
<tr>
<td>Commercialization and Business Acceleration</td>
<td>Attracts $250M in non-public sector capital dollars, and foster &gt;30 fast growing businesses, becoming one of the fastest growing ag tech entrepreneurship hubs nationally</td>
<td>• Robust entrepreneurship ecosystem with 50+ new businesses initiated, and 400 businesses / projects supported in 4 years</td>
<td>• Innovation pipeline (e.g., project size, volume, and staffing information)</td>
</tr>
<tr>
<td>Talent Pipeline Coordination</td>
<td>Coordinates across academia and industry to develop pipeline for 8,000 job seekers and incumbent workers into middle and high skill, quality jobs, making F3 a national model for creating a sustainable workforce development pipeline</td>
<td>• Industry-aligned, responsive and inclusive middle and high skilled workforce, including career exploration, sustainable internship / fellowship model attracting &gt;300 K-14 &amp; university students to careers in agriculture-related industries in the region</td>
<td>• IP utilization and tracking</td>
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<td>• Shared prosperity through facilitating inclusion of local farmers in the growing food industry cluster, including &gt;100 farmworkers accessing farm management and ownership trainings</td>
<td>• Corporate formation activity</td>
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<td></td>
<td>• Employed workforce skills gaps</td>
<td>• Internship / fellowship application volume and applicant backgrounds</td>
</tr>
<tr>
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<td>• Training attendance and student job placements</td>
<td>• Employment profiles (e.g., number of participants)</td>
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Local Farms & Food Innovation (LFFI)

PROJECT SUMMARY:
California’s Central Valley leads U.S. food production, with nearly 350,000 agriculture jobs and $70B in sales, yet the region remains one of the nation’s most impoverished. The region’s 6,795 historically underserved BIPOC farmers and 4,700 small-scale food producers are disproportionately affected lacking a strong local food economy and inability to participate in large export markets. Local Farm and Food Innovation (LFFI) leads two key components driving global technology adoption while strengthening the local food system as critical complements to iCREATE innovation and AgTEC workforce development. First, the San Joaquin Valley Agroecology Hub engages the region’s farming and food industry to co-develop and de-risk technologies driving faster market adoption locally among the region’s 13,650 farms and globally. Second, Del Valle catalyzes local growth of the small-scale farm and food industry by scaling up food entrepreneurship training, value-added product development, farm aggregation, and new markets to increase the opportunity and profitability of regional small-scale, BIPOC producers. LFFI in anchored by the University of California, Agriculture and Natural Resources and the Community Alliance with Family Farmers; supported by 2,400 acres of test farms and a network of 100 local, 1,300 statewide agrifood experts. EDA investment creates 1,000+ new jobs and 300 new small-scale and BIPOC businesses; drives a 30% increase in profitability of farms and food businesses of all sizes; supports 1,000 growers and ranchers and 3,000 small-scale and BIPOC businesses; contributes to $250M of non-public investment and improves regional sustainability.

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<tr>
<th>Pillars</th>
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<tbody>
<tr>
<td><strong>San Joaquin Valley Agroecology Hub</strong></td>
<td>Provide small-to-large scale producers access to technological and product innovations, accelerating net-new exports of crops, food, and technology, and improving profitability and sustainability</td>
<td>• Increase regional profitability by 30% across farm types, crops and scale&lt;br&gt;• Achieve a 40% adoption rate of new economically and environmentally sustainable technologies to 1,000 growers and ranchers&lt;br&gt;• Support &gt;3,000 local, small-scale, and BIPOC agrifood business owners in the growing food industry cluster, accessing programmatic activities&lt;br&gt;• Diverse participation with 70% of local underserved growers and producers engaging in programming and services</td>
<td>• Employer profiles (e.g., principal and employee demographics, profits, commodity)&lt;br&gt;• Technology profiles (e.g., agroecological benefits)&lt;br&gt;• Patent and copyright tracking&lt;br&gt;• Tool library database&lt;br&gt;• Technical assistance feedback surveys&lt;br&gt;• Training attendance logs</td>
</tr>
<tr>
<td><strong>Del Valle</strong></td>
<td>Creates access to markets and capital to stimulate business and job growth and economic mobility; create profitable new local markets for small-scale and BIPOC producers; Develop and support food entrepreneurs in the region for a strong local food economy</td>
<td>• Regional brand attracts $50M in non-public investments to support a vibrant local food economy&lt;br&gt;• Marketing training and services delivered to &gt;1,000 local small-scale farmers, producers, and agrifood business entrepreneurs&lt;br&gt;• 1,000 new jobs and 300 new small-scale, BIPOC agrifood businesses&lt;br&gt;• Improved sustainability through reduced water and chemical use indicated by technology adoption</td>
<td>• Employer profiles (e.g., principal and employee demographics, profits, commodity)&lt;br&gt;• Training attendance logs&lt;br&gt;• Investment size, volume and returns&lt;br&gt;• Corporate formation activity&lt;br&gt;• Direct job creation &amp; growth&lt;br&gt;• Business plan and supporting documents (e.g., building permits, design and engineering plans)&lt;br&gt;• Technology adoption categories from programmatic activities &amp; sustainability projections</td>
</tr>
</tbody>
</table>
California’s Central Valley remains one of the most persistently impoverished regions in the U.S. Stretching 16,000 square miles across five counties, the region experiences stranded assets, a commodity-driven economy, severe environmental degradation, and extreme income inequality. Many of those at the bottom of the wage spectrum seek entrepreneurship as a tool towards wealth creation, yet access to quality capital remains difficult, and predatory lending continues to victimize the most vulnerable. Between 2017 and 2020, 25% of banks closed their doors in the low-to-moderate-income neighborhoods with high minority populations, including several rural areas in the Fresno region and surrounding neighborhoods. During the early Covid-19 pandemic, 41% of Black-owned businesses closed, opposed to 17% of white-owned. As marginalized groups struggle to stabilize and recover, they also face a racial gap in financial literacy that cripples their path to entrepreneurship. Historic exclusion from conventional financial lending due to factors ranging from rigid credit requirements to high capital costs for less experienced borrowers keep small entrepreneurs from creating critical jobs and building strong local economies. By providing non-traditional growth capital to underinvested communities, SIEMBRA Food Fund will serve as the preferred vendor for the Local Farm and Food Innovation (LFFI), addressing a funding gap for small farmers and food entrepreneurs. Led by Fresno Area Hispanic Foundation (FAHF), SIEMBRA will offer flexible and affordable financing as well as capacity-building support to enable local business growth of the most disadvantaged local food system entrepreneurs. By administering 180 micro-, nano-, and small business loans to small food industry businesses (with 90% of loans made to BIPOC entrepreneurs), SIEMBRA Food Fund aims to create 540 jobs, catalyzing economic mobility and increased resiliency for the local food system.

### PROJECT SUMMARY:

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<th>Pillars</th>
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<th>Data collected</th>
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<tbody>
<tr>
<td>Promote entrepreneurship through access to capital</td>
<td>Administer 180 micro-, nano-, and small business loans (including 144 Local Farm and Food Innovations entrepreneurs), contributing to the creation or retention of at least 540 jobs; help 72 eligible entrepreneurs receive additional funding</td>
<td>• Equitable and sustainable economic regional growth with 180 loans awarded and 90% of loans distributed to BIPOC entrepreneurs and farmers</td>
<td>• Employees hired / retained per small business assisted</td>
</tr>
<tr>
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<td></td>
<td>• Robust entrepreneurship ecosystem through with 40 businesses supported annually on average 3 jobs created for each $25,000 of loan administered</td>
<td>• Demographic data of loan borrowers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Increasing financial literacy and strengthening credit profile by helping 300 entrepreneurs become loan ready or access alternating funding in 5 years</td>
<td>• New partnering small entrepreneurs’ info and total count annually</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Growing investment channel in establishing 4 new partnerships between small businesses and industry community partners</td>
<td>• Current and forecasted private investment and other funding</td>
</tr>
<tr>
<td>Support local business growth through technical assistance</td>
<td>Provide capacity building support to &gt;600 BIPOC entrepreneurs build sustainable businesses over 4 years</td>
<td>• Business acumen and financial basics acquired with tailored business development and financial capability building support to 600 entrepreneurs</td>
<td>• Data tracking on loans’ community impact</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Shared prosperity through facilitating inclusion of local entrepreneurs with over 30% of borrowers indicating 15% revenue increase 12-month post completion of training / capacity building</td>
<td>• Database of CDFIs and TA partnerships</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Tracking of supported small businesses’ performance throughout their lifetime</td>
<td>• Business support pipeline (e.g., workshop class size, volume, and staffing information)</td>
</tr>
</tbody>
</table>
Agrifood Technology & Engineering Collaborative (AgTEC)

PROJECT SUMMARY:
California’s Central Valley is a food producing powerhouse with the world’s largest supply of Class I soil and 13,650 farming enterprises. Food production and processing is the foundation of the Central Valley economy, generating about 88,000 jobs representing 30% of all employment. More than 70% currently are low-skill, low-wage jobs with high potential for automation. However, the region’s talent system struggles to help workers meet existing employer demands and fulfill evolving skills needs as industry adopts ag-tech innovations to remain competitive and improve job quality. The result is a cycle of persistent poverty that threatens the region and, therefore, the nation’s food supply. AgTEC develops a skilled, next-generation workforce to support advanced, sustainable food production and manufacturing through 3 pillars aligned to EDA investment priorities: (1) industry-aligned, interdisciplinary workforce training and pathways, (2) Competency-Based Education (CBE), and (3) connecting talent to industry. F3’s AgTEC program integrates iCREATE’s Talent Task Force to inform, validate, and translate industry needs into curriculum that places workers at the forefront of this solution. Innovative training methods will eventually include competency-based education (CBE) that awards credit for demonstrating needed competencies versus mandating redundant traditional coursework. Building on AB1786 which mandates credit for prior learning at California Community Colleges, AgTEC creates consistency plus flexibility for employers and workers through a regional industry-recognized “applied agriculture systems certificate” with stackable credentials applicable to incumbent or new labor force entrants. The result will be open to a joint regional training program with the capacity to double the annual workforce pipeline to over 8,400 job-ready workers in 4 years, enabling an average 60% increase in wage growth for the workforce and moving the region toward building workforce equity.

<table>
<thead>
<tr>
<th>Pillars</th>
<th>Goals</th>
<th>Outcomes</th>
<th>Data Collected</th>
</tr>
</thead>
</table>
| Industry-aligned, interdisciplinary workforce training and pathways | With 2 years, roll out industry-aligned, worker-informed competency-based education program with recognized certificates and an on-ramp to existing degree-bearing pathways | • Increased regional education and upskilling through establishing a short-term interdisciplinary certificate in Applied Agriculture Systems across all 8 colleges based on in-demand industry skills identified by the F3 Talent Development Industry Task Force  
• STEM pathways established through regional 2-year degree programs in ag tech with onramps to 4-year degrees, enabling access to higher quality jobs  
• Inclusive talent development program with targeted learner supports to reduce barriers to access, persistence, and completion of educational programs for underserved populations | • Current and forecasted industry skills and competency needs  
• Learner profiles and supports required to enable access  
• Database of certificates and mapping of potential pathways |
| Competency-based education (CBE)             | Over 4 years train 8,400 students (including incumbent workers) through CBE, including hands-on, earn-and-learn industry experience | • Skilling and upskilling of “4K workers” (~50K students to be incumbent workers) through CBE curriculum taught by college faculty and “worker-instructors” through flexible modules (e.g., online, incumbent workforce training units) positioning workforce to better meet rapidly changing industry needs  
• Increased awareness and evidence-base for potential policy changes related to curriculum and enrollment based on partnerships between college presidents, CCCCO Institutional Effectiveness Division and ASCCC  
• Workforce with increased mastery of critical skills and exposure to industry through placement of 1500 students in Earn-and-Learn and other work-based training (e.g., internships, apprenticeships, bootcamps) | • Student enrollment rates (including by certificate, pathways, modality)  
• Expected outcomes and impacts of potential policy changes  
• Student work-based placement tracking |
| Connection of talent to industry             | Connect talent with higher paying jobs (on average 60% higher wages)   | • Improved access to talent pipelines for industry as a result of AgTEC Innovation Centers recruiting, supporting, and placing individuals in agriculture technology jobs (including 8 career counselors), formalized HR partnerships with 4 Industry Task Force and robust databases  
• Higher quality jobs for incumbent and future workers | • Job placement tracking  
• Match rate across AgTEC job opportunities  
• Database of employers and job opportunities  
• Internship / employment application volume |
California’s Central Valley is the Country’s leading agricultural region with 13,500 farming enterprises and 1 in 3 jobs tied to agriculture. Food production and processing is the foundation of the Central Valley economy, generating about 88,000 jobs representing 30% of all employment. More than 70% currently are low-skill, low-wage jobs with high potential for automation. As industry adopts ag-tech to remain competitive, the region’s talent providers must train workers to meet existing employer demands.

Establishing the Reedley College AgTEC Innovation Center is one of the proposed outcomes of the Agrifood Technology & Engineering Collaborative (AgTEC) workforce initiative (‘F3’ initiative), led by a coalition of the eight California central valley community colleges. The proposed Reedley College (RC) AgTEC Innovation Center will house Ag Technology startups providing students throughout the region with critical work experience through internships, job-shadows, and part-time employment. Reedley’s AgTEC Innovation Center will respond to two primary needs – be a conduit to resolving labor shortages and a hub to train skilled personnel focusing on addressing critical issues in agriculture. Due to the significant shortage of farm laborers needed during harvest, local industries began the move towards automation. This change requires workers skilled in technology. The AgTEC Innovation Center will directly respond to the local farm needs by providing opportunities to upskill current workers as their previous jobs become obsolete. The Center will also be an opportunity for startups to develop a network with local growers giving them the ability to market and sell their products which will require additional personnel and lead to an increase in jobs.

<table>
<thead>
<tr>
<th>Pillars</th>
<th>Goals</th>
<th>Outcomes</th>
<th>Data Collected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry-aligned, interdisciplinary curriculum</td>
<td>• Develop partnership with innovation center ag tech companies and ag tech program trainers and educators as well as instructors in engineering, manufacturing, agriculture</td>
<td>• Instructors will continue to revise and refine coursework to reflect industry changes.</td>
<td>• New coursework developed in each discipline</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• More robust industry advisory created at Reedley college that is cross disciplinary, reflecting the true nature of industry</td>
<td>• Increase numbers of program completers</td>
</tr>
<tr>
<td>Competency-based education (CBE)</td>
<td>• Identify new skills in ag technology that will be the focus of new coursework for CBE</td>
<td>• Instructors will hold meetings with innovation center companies • New ag tech specific skills identified</td>
<td>• CBE Lesson plans developed to teach ag tech specific skills</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Assessments developed to document skill attainment</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Lessons merged into modules for training purposes</td>
</tr>
<tr>
<td>Connection of talent to industry</td>
<td>• Create Internship, earn-and-learn, part-time employment opportunities</td>
<td>• Work with innovation center companies to identify part-time employment opportunities and internships. • RC will develop process to connect students to innovation center job opportunities and opportunities outside of the innovation center.</td>
<td>• work opportunities created in innovation center</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• work opportunities created in local industry</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• students participated in work experience</td>
</tr>
</tbody>
</table>

PROJECT SUMMARY:
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Food production and processing is the foundation of the Central Valley economy, generating about 88,000 jobs representing 30% of all employment. More than 70% currently are low-skill, low-wage jobs with high potential for automation. Increasing value-add and productivity of workers is essential to enable self-sufficiency wages in a commodity sector.

The Merced Ag Innovation Center will serve to deliver trained, service-ready employees. Mirroring the industry, this facility will connect complex food systems through simulated training and interactions across the value chain. Students will learn hands-on skills and experience how these systems integrate and depend on each other to supply the consumer with agricultural products in a contextualized environment. The AgTEC Innovation Center will create interactive lab space for students to learn about nut and fresh produce fabrication, automation, logistics, and high-tech processing equipment. Students will work alongside other students in multiple disciplines to simulate real-world application models along the food systems value chain—culminating in the AgTEC innovation center consumer store and agribusiness lab for students to experience, assess, and coordinate the sale of consumer goods. The AgTEC Innovation Center will develop a responsive and skilled next-generation workforce to support advanced, sustainable food production. Overall, the Ag TEC initiative will nearly double the annual workforce pipeline to over 8,400 job-ready workers in four years, enabling an average 60% increase in wage growth for the workforce and moving the region toward building workforce equity.

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<tr>
<td><strong>Industry-aligned, interdisciplinary curriculum</strong></td>
<td>Within 2 years, roll out industry-aligned, worker-informed competency-based education program with recognized certificates and an on-ramp to existing degree-bearing pathways</td>
<td>• Increased regional education and upskilling through establishing a short-term interdisciplinary certificate in Applied Agriculture Systems across all 8 colleges based on in-demand industry skills identified by the F3 Talent Development Industry Task Force</td>
<td>• Current and forecasted industry skills and competency needs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• STEM pathways established through regional 2-year degree programs in ag tech with onramps to 4-year degrees, enabling access to higher quality jobs</td>
<td>• Learner profiles and supports required to enable access</td>
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<tr>
<td></td>
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<td>• Inclusive talent development program with targeted learner supports to reduce barriers to access, persistence, and completion of educational programs for underserved populations</td>
<td>• Database of certificates and mapping of potential pathways</td>
</tr>
<tr>
<td><strong>Competency-based education (CBE)</strong></td>
<td>Over 4 years train 8,400 students (including incumbent workers) through CBE, including hands-on, earn-and-learn industry experience</td>
<td>• Skilling and upskilling of ~4K workers (~50% students to be incumbent workers) through CBE curriculum taught by college faculty and “worker-instructors” through flexible modules (e.g., online, incumbent workforce training units) positioning workforce to better meet rapidly changing industry needs</td>
<td>• Student enrollment rates (including by certificate, pathways, modality)</td>
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<td>• Increased awareness and evidence-base for potential policy changes related to curriculum and enrollment based on partnerships between college presidents, CCCCO Institutional Effectiveness Division and ASCCC</td>
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<td></td>
<td></td>
<td>• Workforce with increased mastery of critical skills and exposure to industry through placement of 1500 students in Earn-and-Learn and other work-based training (e.g., internships, apprenticeships, bootcamps)</td>
<td>• Student work-based placement tracking</td>
</tr>
<tr>
<td><strong>Connection of talent to industry</strong></td>
<td>Connect 4,200 people with higher paying jobs (on average 40% higher wages)</td>
<td>• Improved access to talent pipelines for industry as a result of Ag TEC Innovation Centers recruiting, supporting, and placing individuals in agriculture technology jobs (including 8 career counselors), formalized HR partnerships with 4 Industry Task Force and robust databases</td>
<td>• Job placement tracking</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Higher quality jobs for incumbent and future workers</td>
<td>• Match rate across Ag Tech job opportunities</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Database of employers and job opportunities</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Internship / employment application volume</td>
</tr>
</tbody>
</table>
**PROJECT SUMMARY:**

California’s Central Valley is a food producing powerhouse with 13,650 farming enterprises producing 350 commodities annually valued at $70 billion. However, the 5-county region remains one of the most persistently impoverished in the U.S. Just a mile from the region’s economic hub (Downtown Fresno) lies one of the most disadvantaged communities in the nation with over 46% of residents living below the Federal poverty level. Marked by a history of disinvestment, Southwest Fresno is bounded by two major highways, creating physical barriers for its residents, where one in five households are dependent on public transit, walking, or bicycling. As construction of the California High-Speed Rail creates connectivity throughout the State, it is a strategic imperative that Southwest Fresno residents also gain equitable access. As part of the F3 portfolio, Opportunity Walkway provides a critical physical link to jobs and economic opportunity. Led by the City of Fresno, Opportunity Walkway, a Class I/Class II pedestrian and bicycle facility, reimagines and rebuilds 1 mile of streetscape in Southwest Fresno, increasing trail capacity in the vicinity by 65% and reducing vehicle travel by 10,517 miles annually. Leading from Southwest Fresno to the Downtown Fresno economic hub, Opportunity Walkway builds back better physical access and connects residents with limited transportation options to some of the region’s agrifood tech capital, High-Speed Rail, and community resources.

### Goals

- **Increase trail capacity** in the vicinity by 65%, decrease the amount of vehicle miles travelled by 10,517 miles annually; reduce **4.2 metric tons of carbon dioxide equivalent per year**

### Outcomes

- Increased use of walking / biking as means of transportation by 1.8% / 1.1% with the development of the 1-mile walkway
- Reduced greenhouse gas pollution within the area with a shift from automobile use to active transportation
- Alleviations of environmental pollution in heavily impacted neighborhood by reducing Fresno’s carbon footprint, consistent with the City’s Greenhouse Gas Reduction Plan (part of the City of Fresno General Plan)

### Data collected

- Pedestrian and bicycle counts completed prior to construction and six months following construction to measure the changes in use demonstrated by the walkway
F3 Partner Integration and Collective Impact

PROJECT SUMMARY:
The story of California’s Central Valley is one of a globally distinct, food-producing powerhouse, well known for its vast agricultural assets, but struggling to overcome persistent poverty and environmental degradation. However, another story is unfolding in this sprawling five-county region – alongside the work to build R&D capacity, create a regional workforce pipeline, and support local farm and food systems. It’s a behind-the-scenes story of partnerships and collaboration, of under-resourced communities mobilizing to forge new paths for civic renewal, inclusion, and change. More than just economic development, it is a story of marshalling collective impact, and that is the focus of F3’s Partner Integration and Collective Impact (PICI) application. The F3 PICI application provides resources to ensure investments across the F3 portfolio are leveraged across the cluster by consistently convening F3’s leads and coalition members to ensure integration of multiple work streams; meaningfully engaging impacted communities in support of each F3 application; and implementing a shared monitoring and evaluation program. The Central Valley Community Foundation (CVCF), the backbone organization for the Fresno DRIVE (Developing the Region’s Inclusive and Vibrant Economy) Initiative and convener of the F3 Initiative, will serve as the lead for this vital role. Its team has extensive experience in inclusive economic development and managing collective impact programs. Through this application, CVCF will work with F3 program leads to establish the infrastructure needed to support collective impact, including strategies to (1) facilitate partner integration, (2) increase community engagement, and (3) collect usable data to inform strategic decision making.

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Goals</th>
<th>Outputs</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partner Integration</td>
<td>Launch F3 Partners’ Table as backbone infrastructure needed to leverage, guide, and support F3 collective impact efforts (Year 1, Q1-2)</td>
<td>Appoint members to F3 Partners’ Table (F3 project leads and implementing partners, and CVCF staff); develop structure for F3 Partners’ Table (roles, meeting frequency, work groups)</td>
<td>F3 Partners’ Table established</td>
</tr>
<tr>
<td></td>
<td>Develop a common agenda, including a shared understanding of the problem and a joint approach for change that centers equity, and a collective plan of action. (Year 1)</td>
<td>Develop common agenda</td>
<td>Common agenda developed; collective plan of action developed</td>
</tr>
<tr>
<td></td>
<td>Support a culture of learning through intentional collaboration, dialogue, and reflection (Years 2-4)</td>
<td>Develop processes to support ongoing learning, including sharing of lessons, challenges, best practices, opportunities, and innovations</td>
<td>Processes developed to support ongoing learning</td>
</tr>
<tr>
<td></td>
<td>Practice consistent communication across F3 coalition to leverage impact and create motivation, and externally to build public will and consensus (Years 2-4)</td>
<td>Implement communication structures to keep internal and external stakeholders informed and engaged; hold regular F3 Partners’ Table meetings and distribute meeting notes</td>
<td>Communication structures in place</td>
</tr>
<tr>
<td>Sample Indicators</td>
<td>F3 coalition members are aware of and committed to the common agenda</td>
<td>The plan of action is used by F3 coalition members; members understand each other’s work and how it supports the common agenda</td>
<td>Partners openly and regularly share lessons, challenges, best practices, opportunities, and innovation</td>
</tr>
<tr>
<td>Community Engagement</td>
<td>Engage community members most impacted by the pandemic to define a collective vision for just-economic recovery, providing input on key F3 components (Years 2-3)</td>
<td>Implement competitive grant process for local community-based organizations to obtain community input on F3 components and provide analysis, reports, and data visualization</td>
<td>Community input data on key F3 components are collected</td>
</tr>
<tr>
<td></td>
<td>Apply community input to inform F3 program goals and activities (Year 4)</td>
<td>Develop process to share findings with F3 coalition members; integrate input, and pivot program activities as needed</td>
<td>Community input data are shared and integrated</td>
</tr>
<tr>
<td>Sample Indicators</td>
<td>Reports summarizing qualitative and quantitative data collected on community members’ vision for just-economic recovery across F3’s three main project components F3 Coalition members understand and reflect on community input, and pivot program activities</td>
<td>Hire evaluation consultant and data manager; launch evaluation team; fund evaluation leads for each F3 program</td>
<td>Consultant and data manager hired; evaluation team created</td>
</tr>
<tr>
<td>Measurement and Evaluation</td>
<td>Develop a shared measurement system, based on F3’s common agenda and action plan, to collect and report on key program-level and collective impact outcomes (Year 2)</td>
<td>Develop database and data management system for data collection, cleaning, analysis, visualization, and reporting</td>
<td>Database and data management system developed</td>
</tr>
<tr>
<td></td>
<td>F3 coalition members use data to assess progress, inform strategy, and pivot programs as needed (Years 3-4)</td>
<td>Develop system for F3 Partners Table to regularly review data and use it in strategic planning</td>
<td>System developed to review data</td>
</tr>
</tbody>
</table>

Evaluation team has capacity and resources to collect and report quality quantitative and qualitative data. F3 coalition members understand the value of the shared measurement system and commit to contributing quality data. Achievable data on program-level and collective impact outcomes are collected, analyzed, and reported. F3 coalition members use the data to assess progress, inform strategy, and pivot programs as needed.
LETTERS OF SUPPORT

Coalition Partners

Central Valley Community Foundation
University of California, Merced
Merced College
Reedley College
University of California, Agriculture and Natural Resources
City of Fresno
Fresno Area Hispanic Foundation
Implementation Partners

University of California, Merced
California State University, Fresno
Merced College
Reedley College
Madera Community College
Clovis Community College
College of Sequoias
Fresno City College
West Hills College - Lemoore
West Hills College - Coalinga
Cultiva La Salud
Los Angeles Regional Technology Alliance
Fresno Economic Development Corporation
Global SF
San Joaquin Valley Manufacturers Association
Community Alliance with Family Farmers
Fresno Metro Ministry
California Farmworker Foundation
LETTERS OF SUPPORT

Government Partners

U.S. Senator Dianne Feinstein
U.S. Senator Alex Padilla
Governor Gavin Newsom
Secretary Karen Ross
Congressman Jim Costa
Congressman Devin Nunes
Congressman David Valadao
State Senator Andreas Borgeas
State Senator Anna Caballero
State Senator Melissa Hurtado
Assemblymember Joaquin Arambula
Assemblymember Frank Bigelow
Assemblymember Adam Gray
Assemblyman Robert Rivas
Assemblymember Rudy Salas

California Department of Food and Agriculture
16th Congressional District
22nd Congressional District
21st Congressional District
8th Senate District
12th Senate District
14th Senate District
31st Assembly District
5th Assembly District
21st Assembly District
30th Assembly District
32nd Assembly District
LETTERS OF SUPPORT

Industry Partners

A Bar Ag Enterprises
Agriland
AgTech Insight
Airosa Dairy
American Pistachio Growers
AWS Welding
Blue Diamond Growers
Borga
Bowles Farming
BlueScope
Brian Watte Farms
Burrough Family Farms
California Almond Board
California Citrus Mutual
California Dairies
California Farmworker Foundation
California Food Producers
California Fresh Fruit Association
California League of Food Producers
Cattani Farms
Career Nexus
Citrus Mutual
Creekside Farming
Culterra Capital
DeJager Farms
Dumont Printing
E&J Gallo Winery
Empresas Del Bosque
Foster Farms
Fowler Packing
Fresno Business Council
Fresno County Farm Bureau
Gusmer Enterprises
Hilmar Cheese
HMC Farms
HotSpot AG
Jain Farm Fresh
Jain Irrigation
Joseph Gallo Farms
Laird Manufacturing
Leprino Foods
Madera County Farm Bureau
Workforce Development Board Madera County
Masumoto Family Farm
Monarch Industries
N&S Tractor
Nutrien
Pi Shop
Pitigliiano Farms
PNM Manufacturing
P-R Farms
Sensient Natural Ingredients
Seqouias Adult Education Consortium
Soldier Fly Technologies
SPEC Crop
Steel Structures
Strategic Mechanical
Sun Harvest Inc
SunWest
Total Concept Enterprises
Universal Ag Compliance
United Western Industries
Vegalab
Wawona
Western Ag Irrigation
Western Agricultural Processors Association
Western Growers Association
The Wonderful Company
Yosemite Farm Credit
LETTERS OF SUPPORT

Community Partners

A Hopeful Encounter
American Friends Service Committee
Building Youth Tomorrow Today
California Association of Resource Conservation Districts
California FarmLink
Cen Cal Mobile Food Consultation Service
Central Valley Health Policy Institute - Fresno State
Community Vision
Coke Farms Inc.
Cultiva La Salud
El Dorado Park Community Development Corporation
Every Neighborhood Partnership
Feed the Hunger Fund
Fresno BIPOC Produce
Fresno Community Health Improvement Partnership
Fresno Economic Opportunities Commission
Fresno Housing Authority
Fresno Interdenominational Refugee Ministries
Fresno K-16 Collaborative
Fresno Unified School District
Generation Changers
Highway City Community Development Corporation
Image Church
Jackson Community Development Corporation
Jakarta Movement
Kings County Job Training Office
Kitchen Table Consulting
Kresge Foundation
Linguistica Interpreting & Translation Services
Live Again Fresno
Madera/Chowchilla Resource Conservation District
Mobile Food Vendor Association
Regenerate California Innovation
St Agnes Medical Center
Sierra Health Foundation: The Center
Sierra Nevada Research Institute
Sierra Resource Conservation District
Southwest Fresno Development Corporation
Sustainable Agriculture Education
Transform Fresno
UC Merced Calteach
UC Merced Health Science Research Institute
United Health Centers
University of California - Nutrition Policy Institute
Valley Children's Healthcare
Fresno-Merced
Future of Food (F3) Innovation
SECTION 1: Synopsis of F3’s Vision for Regional Economic Development

Our Vision – California’s Central Valley is a food producing powerhouse with over 13,650 farming enterprises producing 350 commodities annually worth $70B, including 60% of the nation’s fruits and nuts and 30% of its vegetables. Despite this agricultural bounty, 45% of the five-county region’s workers struggle to put food on their own tables. The status quo is untenable with the region’s children 68% more likely to live in poverty than in the rest of the nation, unemployment over twice the national average, residents exposed to the worst air quality in the nation, and communities living with contaminated water from the legacy of traditional farming practices. The region remains among the most persistently poor and unequal in the U.S. because its agriculture commodity-driven economy cannot create enough quality jobs that enable residents to make ends meet. Furthermore, while it represents 30% of regional employment, agriculture threatens its own future in the Central Valley as a primary contributor to climate change and is at the greatest risk of its impact.

Yet, these challenges are also the opportunity. An adjacent, higher-value “engineering for agriculture” cluster is emerging from the region’s unique concentration of industry supply chain, research expertise, and specialized infrastructure. The region is ideally positioned to develop and commercialize solutions for climate-adaptive food production needed locally and around the world, while creating high-quality jobs across skill levels for Central Valley residents. Fresno DRIVE’s Fresno-Merced Future of Food (F3) Innovation Initiative organizes the region’s assets into an ecosystem that unlocks a world class “Climate-Smart Agrifood Technology and Engineering Cluster” based on capabilities in digitalization and data science, mechatronics, equipment, and systems testing and integration for agrifood applications (see Figure 1).

The F3 portfolio drives both economic growth and equity – spurring inclusive innovation and commercialization with supports that proactively engage small farmers and entrepreneurs alongside multinational companies; building a seamless talent development pipeline; and catalyzing local market growth of the small-scale farm and food industry. As a result, over four years F3 will increase regional GDP from 2.1% to 3.0% annually; attract $250M in private investment; and create/fill more than 10,000 quality jobs that pay 60% more than current, low-skilled jobs. In addressing economic, agricultural, and climate challenges, F3 is transformational for resiliency and competitiveness of the region and nation. While the Central Valley has been investment-worthy for generations, it is now investment-ready for the Future of Food.

Figure 1: Cluster Target Technologies & Applications
Coalition Members: F3 brings all sectors together in support of the cluster with roles defined precisely in F3’s component applications and summarized below in Figure 2.

**Figure 2: F3 Coalition Members and Partners**

<table>
<thead>
<tr>
<th>Partner Category</th>
<th>Role</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Industry Partners</strong></td>
<td>Volunteer leadership of iCREATE, AgTEC, and Small Farm Tech Innovation Alliance</td>
<td>Agricultural associations, co-ops, and large employers representing 15,000 farm and food enterprises with more than 430,000 employees – Agrianl, Almond Board, Blue Diamond Growers, California Citrus Mutual, California Fresh Fruit Association, California League of Food Processors, HMC Company, Western Ag Processors, Western Growers Association, Wonderful Company</td>
</tr>
<tr>
<td><strong>Anchor Institutions</strong></td>
<td>Founding iCREATE board members (501c3)</td>
<td>California Department of Food and Agriculture, Governor’s Office of Business &amp; Economic Development, California State University-Fresno, Central Valley Community Foundation, UC Ag &amp; Natural Resources, University of California, Merced</td>
</tr>
<tr>
<td><strong>Component Project Lead Applicants</strong></td>
<td>AgTEC Lead</td>
<td>University of California, Merced (UCM)</td>
</tr>
<tr>
<td></td>
<td>Local Farm and Food Innovation Lead</td>
<td>University of California Ag and Natural Resources (UCANR)</td>
</tr>
<tr>
<td><strong>Implementation Partners</strong></td>
<td>iCREATE</td>
<td>Fresno State; UC ANR; UCN</td>
</tr>
<tr>
<td></td>
<td>AgTEC</td>
<td>Clovis Community College, College of the Sequoias, Fresno CC, Madera CC, Merced College, Reedley College, West Hills College – Coalinga, West Hills College – Lemoore, California Farmworker Foundation</td>
</tr>
<tr>
<td></td>
<td>Local Farm and Food Innovation</td>
<td>Community Alliance with Family Farmers, Cultiva La Salud, Fresno Metro Ministry, UC ANR</td>
</tr>
</tbody>
</table>

Overall Success of the Regional Cluster and Component Projects — Figures 3 and 4 describe the F3 projects and show alignment to the overall success of the cluster and the regional CEDS.

**Figure 3: F3 Component Projects and the Agrifood Technology and Engineering Cluster**
### Figure 4: Component Project Descriptions and Support of Regional CEDS

<table>
<thead>
<tr>
<th>Component Project</th>
<th>Project Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICREATE</td>
<td>• Agrifood Tech and Engineering Cluster hub with 4 pillars (Industry Leadership; Innovation; Commercialization; Talent Pipeline Coordination) that catalyze innovation, 3,500 jobs and &gt;$250M in private investment</td>
</tr>
<tr>
<td>Local Farm &amp; Food Innovation</td>
<td>• Driving inclusive economic growth of small-to-large scale farmers and food entrepreneurs, achieving a 40% adoption rate of new economically, environmentally sustainable technologies and key contributor to $250M in private investment</td>
</tr>
<tr>
<td>SIEMBRA Food Fund</td>
<td>• $4.5M revolving loan fund to expand BIPOC-owned farms and food businesses</td>
</tr>
<tr>
<td>Ag-TEC Workforce Initiative</td>
<td>• Regional workforce collaborative of 8 community colleges building industry-aligned agrifood tech pathways for &gt;8,000 workers, including 4,000 incumbent workers, increasing salaries by 60%</td>
</tr>
<tr>
<td>Reedley Innovation Center</td>
<td>• 9,000 SF for industry, tech, and workers to test and demonstrate technologies focused on grapes, citrus, and stone fruit</td>
</tr>
<tr>
<td>Merced Innovation Center</td>
<td>• 15,000 SF for industry, tech, and workers to test and demonstrate food processing systems</td>
</tr>
<tr>
<td>Opportunity Walkway</td>
<td>• Public walkway connecting disinvested neighborhoods to jobs &amp; opportunity in Downtown Fresno, the region’s economic center</td>
</tr>
<tr>
<td>Partner Integration</td>
<td>• Collective impact of F3 investments through integration, community engagement, and shared measurement and evaluation</td>
</tr>
</tbody>
</table>

### Complementary Initiatives — F3 is a central component of a broader, inclusive economic development strategy for investments being made in the Fresno-Merced region. Major complementary initiatives include:

- **Financial Support from the State of California and Renovation of iCREATE Headquarters** – The State of California has been the lead investor in F3 committing $32M in seed funding. As documented across the F3 component applications, $14.25M of the State’s initial investment is being provided as a direct match to the BBBRC proposals. The remaining funding will enable the renovation of a 65,000 SF historic building in Downtown Fresno near High Speed Rail to serve as the headquarters for iCREATE.

- **Fresno DRIVE (Developing the Region’s Inclusive and Vibrant Economy) Initiative:** F3 is one of 14 initiatives that comprises DRIVE’s 10-year, $4.2B community investment plan, which has attracted nearly $100M in philanthropic and public capital to support small businesses, civic infrastructure, the K-16 pipeline, and early childhood initiatives.

- **California’s Community Economic Resilience Fund (CERF):** Fresno DRIVE’s equity-centered model of inclusive economic development inspired the State of California to create the $600M CERF for regional economic development plans like DRIVE. F3 projects may be eligible for complementary investments from CERF.

- **California High Speed Rail (HSR):** The $6.8B Central Valley segment of HSR will connect Fresno and Merced in less than 30 minutes by 2029 and the Central Valley to San Jose in less than an hour by 2031 providing Central Valley innovators access to the Silicon Valley.

- **Community College Investment:** Over $40M has been invested in the last 24 months in the agrifood tech-aligned facilities and equipment at the region’s community colleges.

- **State Funding for Climate-Smart Agrifood Tech:** $1.1B of state funding for climate-smart agrifood has been proposed in the FY23 budget, to be approved by June 2022.
• **Research Funding Awards:** UC Merced, Fresno State, and UC ANR have been awarded $160M in collective funding for agrifood tech research over the last two years.

• **EDA Awards for Related Projects:** Merced College, Fresno City College, and the Fresno Area Hispanic Foundation are being awarded $6M in EDA grants to support F3-aligned programs. The VINE Network was awarded $2.8M to UC ANR by EDA.

• **Philanthropic Support:** The James Irvine Foundation has made 3 grants in the last 3 months in support of grassroots leadership in Fresno DRIVE and other economic justice initiatives. This support includes engaging USC’s Equity Research Institute to assist F3 with data and analysis of opportunities and barriers in the agrifood tech industry, and to build collective impact infrastructure that can be leveraged by F3.

**Specific Metrics of Success** — In total, the F3 portfolio is expected to attract $250M in private investment, create/fill 10,000 jobs and contribute ~$500M to GDP annually after 4 years with the contribution growing each year thereafter, resulting in an annual increase in regional GDP from ~2.1% (regional 20-year CAGR) to 2.7-3.0% after 4 years and stabilized GDP growth, which has fluctuated heavily due to lack of economic diversification. Job creation will decrease unemployment by 1.2%, resulting in a 6.3% unemployment rate across the 5-county region, where 10- and 20-year average unemployment rates have been 12.2% and 11.5% respectively. Of the jobs created/filled, approximately 7,000 are projected to employ BIPOC community members with average wages that are at least 60% higher than current employment.

**Timeline** — Figure 5 outlines the overall project plan for the next 4 years, including construction of the community college innovation centers and the Opportunity Walkway.

**Figure 5: F3 Implementation Timeline**

**SECTION 2: F3’s Location and Region**

F3 will primarily serve California’s 5-county Central Valley region, which includes Fresno (06019), Kings (06031), Madera (06039), Merced (06047), and Tulare (06107) Counties. The 16,000 square mile region is home to over 2M people living in 108 cities, towns, and unincorporated areas. It aligns with EDA’s focus on equitable recovery from the pandemic and persistently impoverished regions. Approximately 70% of Central Valley residents identify as BIPOC. Fresno is the geographic and population center of the region with over 1.02M residents where the economy ranks 268th of 274 large cities nationwide for economic inclusion. 
Almost a third of jobs are associated with the food industry, but the region experiences the 3rd worst food hardship in the nation. \(^8\) Target communities and stakeholders include:

- **Farming Enterprises Across the Region:** There are 13,650 farms across five counties that will benefit from the innovations and financial resources coming to the region.\(^9\)
- **BIPOC and Underserved Farmers:** According to the USDA 2017 census, there are 6,795 BIPOC and underserved farmers in the five-county region.
- **Small-Scale Producers and Mobile Food Vendors:** There are 4,700 small-scale food producers in the region, with 1,600 mobile food vendors in Fresno County alone.
- **Ag Workers Impacted by Automation:** 72% of the roughly 88,000 existing agrifood jobs in the region require no formal education.\(^10\) Workers in these lower skilled jobs are at the greatest risk of automation\(^11\) and are the target for the AgTEC investments.
- **Agrifood Manufacturers:** The approximately 220 agrifood manufacturers\(^12\) in the region are an important part of identifying industry needs for the iCREATE innovation ecosystem.

**Industry & Regional Assets:** Figure 6 showcases the region’s substantial industry assets.

**Figure 6: Central Valley Industry and Regional Assets**

**SECTION 3: Private Sector Participation and Stakeholder Commitments**

F3 embeds industry participation in governance and leadership as follows:

- **iCREATE Board of Directors** – In addition to the founding institutions, the iCREATE board will include industry representatives and BIPOC and underserved farmers.
- **Small Farm Tech Innovation Alliance** – Convenes small-scale and BIPOC farmers, tech companies, research & extension professionals, and CBOs to ensure small-scale priorities and needs are embedded into F3 R&D and workforce development activities.
- **AgTEC Talent Task Force** – The AgTEC Workforce Initiative establishes the Talent Task Force, a regional coordinating body comprised of industry associations, employers, and workers to champion and oversee the development of the regional workforce pipeline.

The F3 projects also offer high-quality, high-demand services for industry partners, including the Catalyst R&D Fund for industry-engaged R&D; innovation and commercialization support; promotion of the industry through symposia and international conferences; small business lending; support for market access; and innovative demand-driven workforce training.
Stakeholder Commitments – F3 has secured the following commitments from industry partners who collectively employ over 400,000 annually in the five-county agrifood industry:

**Figure 7: Industry Commitments to F3**

<table>
<thead>
<tr>
<th>Industry Partner</th>
<th>Description</th>
<th>Annual Industry or Firm Hiring Needs</th>
<th>F3 Partnership Commitments</th>
<th>Letter Provided</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriland</td>
<td>Farming 31,000 acres in 5-county region</td>
<td>800</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Almond Board of CA</td>
<td>Association representing 7,000 almond growers</td>
<td>10,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blue Diamond Growers</td>
<td>Almond co-op representing 3,000 growers</td>
<td>1,400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>California Citrus Mutual</td>
<td>Association representing 2,500 growers</td>
<td>20,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>California Cotton Ginners &amp; Growers</td>
<td>Association representing 1,000 employers</td>
<td>11,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>California Fresh Fruit Association</td>
<td>Association representing 350 employers, 100,000 employees</td>
<td>Approx.100,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>California Industry League of Food Processors</td>
<td>Association representing hundreds of processors and 200,000 workers</td>
<td>15,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HMC</td>
<td>Stone fruit grower</td>
<td>500-1,500</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Western Growers Association</td>
<td>Association representing 2,000 growers</td>
<td>1,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wonderful Company</td>
<td>Grower/Producer – almonds, citrus, pistachios, pomegranates, wine grapes, nursery stock</td>
<td>&gt;1,000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Philanthropic Commitments – To date, philanthropic funders have invested nearly $25M in the Fresno DRIVE Initiative, the original sponsor of F3. They have expressed interest in investing alongside EDA in AgTEC, community engagement, and other aspects of the projects related to economic mobility for low-wage workers in the region.

**SECTION 4: Financial and Operational Sustainability**

Financial Sustainability: As outlined in each component application, F3’s activities have the potential to become financially and operationally sustainable within 4 years, ensuring BBBRC investments create sustainable change and equitable, long-term prosperity. The Cluster will draw from existing and establish several new funding streams to enable financial sustainability.

**Figure 8: Key Post-Award Funding Streams by F3 Initiative**

<table>
<thead>
<tr>
<th>Project</th>
<th>Key Funding Streams</th>
</tr>
</thead>
</table>
| ICREATE                              | - Membership dues: Low-cost membership fees received from industry partners that join the cluster  
- Industry funded R&D: Fees and charges for industry-engaged research  
- Grants and contracts: Obtained through public and philanthropic sources  
- Other funding opportunities: Events, conferences, direct solicitation of donations |
| Local Farm and Food Innovation        | - Revenue from operations: Revenue from operations of De Valle Food Hub  
- Industry sponsored: Capital and resources from ICREATE commercialization activities  
- Grants and contracts: Obtained through public and philanthropic sources |
| Ag-TEC Workforce Initiative           | - State apportionment: State funding based on enrollment in certificates and degree programs  
- District funding: Funding from the district for OPEX (e.g., innovation center staffing costs)  
- Innovation center fees: Fees to utilize the center’s facilities and resources |

Operational Sustainability: While each core project has its own formal and/or collaborative governing body to provide oversight and accountability for outcomes, the F3 project leads and implementing partners are committed to the “Partner Integration and Collective Impact” model,
as depicted in Figure 9. Coordinated by the Central Valley Community Foundation, Partner Integration will ensure coordinated and well-leveraged implementation, deeper community engagement, and joint measurement and evaluation.

Figure 9: F3 Partner Integration Model

SECTION 5: Engagement of Community-Based Organizations (CBOs)

For over twenty years, the Greater Fresno Region has been aggressively pursuing civic renewal and revitalization led by both institutional and grassroots leaders resulting in interconnected networks of CBOs, civic institutions, industry groups, and residents who are deeply committed to and working towards the economic transformation of the region. F3 benefits from the work to date to build the region’s civic capacity for change and has intentionally planned to engage the CBO sector in key ways to ensure resident voices and economic inclusion are embedded in the Cluster’s efforts. Specifically, F3 will engage CBOs as follows:

- **Implementation Partners in F3 Component Applications** – As trusted partners with successful track records in engaging, advocating for, and providing services to F3 target communities, the following CBOs are sub-awardees in F3 component applications:
  - *California Farmworker Foundation (CFF)*: CFF represents 5,000 farm and field workers in California’s Central Valley and Coachella Valley and will help ensure workers are included in designing and implementing the AgTEC workforce initiative.
  - *Community Alliance with Family Farms (CAFF)*: Founded in 1978, CAFF builds sustainable farming and food systems and will support implementation of the Local Farm and Food Innovation (LFFI) component application.
  - *Cultiva La Salud*: Cultiva La Salud creates health equity in the Central Valley by fostering changes in communities that support healthy eating and active living. Cultiva is an implementation partner in the LFFI application.
• *Fresno Area Hispanic Foundation (FAHF)*: FAHF, a U.S. Treasury certified community development financial institution, has been assisting low-income entrepreneurs with their business development needs since 2004. FAHF is the project lead for the SIEMBRA Food Fund. In this role, FAHF will provide invaluable services and insight to the cluster on the needs of micro-enterprises in the food and ag sector.

• *Fresno Metro Ministry*: Since 1970, Fresno Metro Ministry has led community advocacy for health and well-being and is an implementing partner in the LFFI application.

• **Understanding Barriers to Access through CBO-Led Community Engagement**: Included in the Partner Integration and Collective Impact component application are matching funds for CBOs to facilitate engagement with underserved residents from agricultural communities. Through a competitive grantmaking process, the Central Valley Community Foundation will provide funding to the selected CBOs to ensure meaningful community engagement throughout the implementation of the EDA grant.

**SECTION 6: Equitable Sharing of Cluster Benefits**

As an initiative of Fresno DRIVE, equitable sharing of cluster benefits is a core prerequisite of the cluster and has been institutionalized by:

• **Adopting the F3 Guiding Principles for Inclusive Innovation**: F3 has developed and adopted eight inclusion-focused principles that stipulate all core component projects and cluster activities must be (1) Affordable, (2) Appropriately-scaled, (3) Accessible, (4) Translatable and Transferrable, (5) Low-Risk, (6) Multi-Beneficial, (7) Networked and (8) Protective of Privacy. These guiding principles have and will continue to ensure the cluster remains focused on equity and inclusive growth.

• **Embedding Equity and Inclusion as Core Tenets of Component Programs**: F3’s component projects each embed inclusion, shared prosperity, and economic mobility for low-wage workers as follows:

  • **iCREATE** – iCREATE coordinates with the Small Farm Tech Innovation Alliance (SFTIA) to place BIPOC and underserved farmers at the center of the innovation process.

  • **AgTEC Programmatic and Construction Applications**: The AgTEC Initiative offers tremendous economic mobility for low-wage workers in the agricultural sector. With a target of ~50% of resources dedicated to incumbent workers at risk of automation, AgTEC invests in wrap-around services and training to increase salaries by an average of 60%.

  • **Local Farm and Food Innovation**: Through the Agroecology Hub and Del Valle, the cluster will work to support local farms and food businesses, particularly historically underserved and small-scale producers, and ensure local food systems have access to capital, markets, training, business support and innovations.

  • **SIEMBRA Food Fund**: By delivering more than $4.5M through loans to micro-enterprises, mobile vendors, and other small businesses, 90% of which will be BIPOC, SIEMBRA directly invests in historically and presently excluded entrepreneurs.

  • **Opportunity Walkway**: This 1-mile walkway increases access between neighborhoods with the lowest incomes and highest pollution levels in California and Downtown Fresno, the economic center of the region.
• **Partner Integration and Collective Impact:** This project centers race equity outcomes by supporting meaningful community engagement through the life of the EDA grant and funding formal measurement and evaluation to ensure equity outcomes are achieved.

**SECTION 7: Overview of Outcomes**

Investments in F3 will accelerate the pace of agrifood tech innovation in the region and lead to (1) a diversified Central Valley economy with high-quality jobs and economic mobility for its residents, especially the underserved; (2) sustainable regional food systems within the Central Valley; and (3) sustainable solutions for global food production. In total, investments in F3 will:

- **Attract $250M** in private investment;
- **Create/Fill ~10,000 jobs** with an average wage increase of 60%, decreasing the unemployment rate by 1.2% to a 6.3% unemployment rate across the five counties;
- **Employ ~7,000 BIPOC community members** (70% of total created jobs); and
- **Contribute ~$500M to GDP annually** after 4 years, increasing annual GDP growth rate from ~2.1% (regional 20-year CAGR) to up to 3.0% after 4 years.

To transform the region, F3 has outlined the following specific goals and outcomes for its interrelated applications:

**Figure 10: Overview of Outcomes**

<table>
<thead>
<tr>
<th>Project</th>
<th>Goals/Intended Outputs</th>
<th>Outcomes</th>
</tr>
</thead>
</table>
| iCREATE                       | Establish 75 industry-academic partnerships, developing 100 ag tech innovations, of which 40% will be commercialized. Attract $250M non-public sector capital dollars and coordinate 3.5K new research and job opportunities, including 2.5K created for BIPOC and low-income students and incumbent workers | • Broad food production industry alignment and engagement, including > 200 dues-paying, committed industry champions contributing to R&D agenda and activities, conferences, exchanges, tech development and demonstration within 4 years  

Continually growing portfolio of ~100 industry and university-driven research projects within 4 years and a robust entrepreneurship ecosystem with 50+ new businesses  
Growing investment channel with 15 investors partnered, 60 engaged within the first 4 years, ensuring a consistently high-level of funding to drive cycles of innovation  
Industry-aligned, responsive and inclusive middle and high skilled workforce, including a sustainable internship / fellowship model attracting >300 K-14 and university students to full-time careers in agriculture-related industries in the region |

| Local Farm and Food Innovation (LFFI) | Drive industry technology adoption enabling 40% commercialization to 1,000 growers and ranchers. Provide support to 3,000 small-scale and BIPOC farms & food businesses | • Regional brand contributes to $250M in annual investments to support a vibrant local food economy, including >1,000 growers  
Marketing training and services delivered to >1000 local small-scale farmers, producers, and agrifood business entrepreneurs  
Increases regional profitability by 30% across crop production systems and scale  
Achieves a 40% adoption rate of new sustainable technologies available through the tool library, demonstrations, and co-developed with grower communities |

| AgTEC                          | Nearly double the annual workforce pipeline to over 8,400 job-ready workers in four years, enabling an increase in average wages of 60% for the workforce | Increased demand-based education regionally through establishing a short-term interdisciplinary certificate in Applied Agriculture Systems across all 8 colleges based on in-demand industry skills  
Reskilling and upskilling of ~4K incumbent workers through Competency Based Education taught by college faculty and “worker-instructors” through flexible modules (e.g., online, incumbent workforce training units) positioning workforce to meet rapidly changing needs  
Improved access to talent pipeline for industry and higher quality jobs for incumbent and future workers |

**SECTION 8: Cluster Developments and Progress Updates**

**Phase I Planning Efforts** – The F3 coalition has been extremely active during the planning phase of the BBBRC grant with extensive stakeholder / community outreach and detailed business planning for each application, as summarized below.

**Stakeholder / Community Outreach** – The F3 coalition completed two surveys and six stakeholder convenings across its portfolio to solicit input in one or more component applications. Three additional surveys are under way with results expected in July 2022.
- **Agricultural Worker Survey**: The California Farmworker Foundation administered a survey in Spanish for farm and field workers on their perceptions and interests in education and training opportunities. 250 surveys were completed. 55% expressed interest in furthering their training, and 75% considered education to be extremely important.

- **Small BIPOC Farmers Survey**: The Community Alliance with Family Farms surveyed BIPOC farmers to understand the services most needed to sustain and grow their businesses. Of 120 responses, 44.8% identified support for distribution and marketing as the top need with light packaging, crop planting and processing also identified as priorities. Over 90% expressed interest in a centralized food hub.

- **Industry, Faculty, and Mobile Food Vendor Surveys Under Way**: The AgTEC project leads are in the field collecting data from both industry leaders and community college faculty for input into the design and operation of the envisioned AgTEC workforce pipeline. Cultiva La Salud (Local Farm and Food Innovation project) is collecting survey data from mobile food vendors to affirm and assess community priorities.

- **Industry Convening**: On January 26, 2022, over 100 industry leaders and training partners participated in a summit to discuss workforce needs and emerging technologies, which is directly informing AgTEC’s proposal for stackable certificates and degree programs.

- **Community College Faculty Convening**: On March 4, 2022, faculty and administrators representing the eight regional community colleges attended a virtual summit to translate insights from the industry convening into next steps for implementing the AgTEC project.

- **Mobile Food Vendor and Cottage Entrepreneur Convenings**: In January and February 2022, Cultiva La Salud coordinated four in-person meetings in Spanish, Hmong, Syrian, and Lao to determine needs for mobile food vendors and cottage entrepreneurs. Major themes from these community “pláticas” (conversations) were safety concerns, wraparound services for small businesses, and the need for community kitchens to support these micro-enterprises.

**Partner Engagement and Business Planning** – In addition to the above outreach and engagement, representatives from the coalition (approximately 50 people) met at least twice weekly to refine implementation details for the F3 projects resulting in the following changes and refinements:

- **iCREATE**: Secured $1M in additional matching funds; added a major institutional partner, UC ANR and its VINE resources, to provide commercialization support; secured commitments from industry to provide volunteer leadership for iCREATE.

- **AgTEC**: Secured $7.5M in additional matching funds; secured commitments from employers and associations who annually employ more than 400,000 to help develop AgTEC and use it as a major source for new hires annually.

- **Local Farm and Food Innovation**: Secured $1M in additional matching funds; added a major institutional partner, UC ANR, as the project lead; expanded the focus on agroecological practices to improve local food system resiliency; adjusted the scope for the Hecho En Fresno warehouse from construction / renovation to planning only.

- **Opportunity Walkway**: Secured $1.14M in total matching funds from the City of Fresno.

- **Partner Integration and Collective Impact**: Added a project to ensure (1) integration across all cluster activities; (2) expanded community engagement during the life of the grant; and (3) shared measurement and evaluation of the efficacy of the F3 projects. Secured an additional $1M in matching funds for this project.
WORKS CITED


4. Residents of San Joaquin Valley counties are 165% more likely than in the rest of California to be exposed to the state’s most polluted drinking water (top 10% of census tracts by drinking water burden). Source: CalEnviroScreen 4.0. https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40


6. McKinsey & Co, unpublished research, March 2022. Job creation assumptions include 240 jobs from funded research projects; 880 jobs from spin-off businesses supported by iCREATE’s commercialization support; and 2,655 jobs from small business expansion. 8,400 jobs filled assumption based on available jobs in the region that require upskilling the current workforce. Reduction in unemployment is calculated by applying the jobs created and filled estimate to 2021 FRED unemployment data for the five-county region. Wage growth is calculated with EMSI data comparing low-skilled jobs in the agrifood tech industry filled by workers with no formal education to wages earned by workers with a high school equivalency and some community college CTE training. GDP growth is calculated based on jobs created and filled with wage increase assumptions.


9. Number of farms for each country are taken from the 2017 Census of Agriculture, which tracks number of farms by county; from 2012 to 2017, the number of farms across regions has been decreasing


13. California Office of Environmental Health Hazard Assessment (OEHHA), 2021. Draft CalEnviroScreen 4.0. OEHHA defines CalEnviroScreen (CES) as “a science-based method for identifying impacted communities by taking into consideration pollution exposure and its effects, as well as health and socioeconomic status, at the census-tract level.” CES incorporates a total of 21 measures encompassing pollution exposure, the presence of environmental hazards, population sensitivity, and socioeconomic factors.

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