



Written Statement of
Len Higashi
Acting Executive Director
Hawaii Technology Development Corporation
before the
House Committee on Finance
Thursday, February 21, 2019
12:30 p.m.
State Capitol, Conference Room 308

In consideration of
HB624, HD1
RELATING TO THE STRUCTURE OF GOVERNMENT.

Chair Luke, Vice Chair Cullen, and Members of the Committee.

The Hawaii Technology Development Corporation (HTDC) submits **comments** with concerns on HB624, HD1 that transfers the rights, powers, functions, and duties of the Hawaii Technology Development Corporation and Hawaii Strategic Development Corporation to the University of Hawaii.

As part of HTDC's vision to create 80,000 new innovation jobs in Hawaii earning \$80,000 or more by 2030, HTDC works closely with DBEDT, HSDC and University of Hawaii on initiatives aimed at promoting technology and innovation jobs. In the 2017 HTDC economic impact survey, 149 companies participating in HTDC programs reported 3,736 jobs in Hawaii, \$589 million in total revenue generating \$1 billion in total economic impact.

The Hawaii SBIR program is a good example of a program that HTDC developed to support tech businesses. HTDC has been providing Phase I matching grants to SBIR awarded companies since 1989. For every dollar invested through the Hawaii SBIR program, Hawaii companies have attracted over 20 federal dollars in return to the State, plus commercialization funding. In addition to the grants, HTDC's Hawaii SBIR program provides wrap-around business support services to companies. For example, HTDC provides assistance with grant writing, prototyping, manufacturing, partnering with the Federal Labs, patents, federal cost accounting, trade shows, and access to the Federal agencies and program managers. HTDC has built an extensive network of service providers and strong relationships with the Federal agencies. In FY16, the program was expanded to help companies get their technologies to market. Since, HTDC has been awarding Phase II/III matching grants and providing assistance with commercialization, market analysis, and industrial/rugged design. A few examples can be found at:

<https://www.htdc.org/wp-content/uploads/2018/01/2017SBIR-product-SuccessBook-ver-2-final.pdf>

HTDC has the following concerns with this measure:

- If the HTDC statute were repealed, the State would lose the 5 year \$2,500,000+ federal funding cooperative agreement for the National Institute of Standards and Technology (NIST) Manufacturing Extension Partnership program. The \$600k annual federal funding and the 4 federally funded positions would be lost. NIST does not allow the program to be transferred between hosting agencies. Our Federal program advisory board has voiced concerns and is requesting a plan in the event the bill becomes law.

- The transition will result in loss of experienced staff and disruption to the existing programs and projects including the Entrepreneurs Sandbox in Kakaako, tech park development projects, Manufacturing Assistance (MAP) Grant Program, accelerator programs, etc.

- This bill is starting to impact HTDC operations. The partners we are trying to recruit for the Sandbox have reservations. Most importantly, HTDC cannot afford to lose any more staff.

HTDC looks forward to working with all stakeholders to move the innovation economy forward. Thank you for the opportunity to offer these comments.



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Statement of
Karl Fooks
President

Hawaii Strategic Development Corporation
before the
HOUSE COMMITTEE ON FINANCE

Thursday, February 21, 2019
12:30 PM
State Capitol, Conference Room 308

In consideration of
HB624 HD1
RELATING TO THE STRUCTURE OF GOVERNMENT

Chair Luke, Vice Chair Cullen and members of the Committee, the Hawaii Strategic Development Corporation (HSDC) provides comments on HB 624 HD1 a bill that transfers the rights, powers, functions, and duties of the Hawaii Technology Development Corporation and Hawaii Strategic Development Corporation to the University of Hawaii.

It is the purview of the Legislature and the Administration to determine policy and the appropriate structure of government to implement that policy. HSDC's role is to execute on the mission established in its authorizing statute, §211F-2 HRS: to **provide incentives** and **reduce the risks** of private investment to encourage economic development and stimulate private capital investments. HSDC's mission is to co-invest with the private sector to **strategically** develop new growth sectors of the economy.

It is imperative that the State commit to a long-term, comprehensive, technology-based economic development (TBED) strategy to support sustainable economic growth. TBED is the only development effort that can create high wage opportunities for our citizens. Most of the jobs in our economy are relatively lower paying service sector jobs. With the emphasis on STEM education in our educational system, if we do not undertake a sustained effort to create jobs that use these skills, the trend of rising domestic outmigration will continue. A recommended TBED strategy is presented below.

Thank you for the opportunity to testify.

What is Technology-based Economic Development? *

Over the last several years, the U.S. economy has been undergoing a dramatic transformation as the nation moves to an economy driven by technology and innovation—through the creation of new industries and the application of technology in traditional industries. Competing in a global economy, regions must have an economic base composed of firms that constantly innovate and maximize the use of technology in the workplace. Technology-based economic development, or TBED, is the approach used to help create a climate where this economic base can thrive.

What is Required for a Technology-based Economy?

Based on the experience of tech-based economies like Silicon Valley, Research Triangle, and Route 128, the following elements are required for a tech-based economy:

- A research base that generates new knowledge;
- Mechanisms for transferring knowledge to the marketplace;
- An entrepreneurial culture;
- Sources of risk capital; and,
- A technically skilled workforce.

What Approaches Can Be Employed to Develop These Elements?

Research Capacity. Initiatives that strengthen the capacity to conduct research in universities, federal labs, or the private sector include: centers of excellence, university-industry partnerships, and initiatives to expand research facilities, recruit eminent scholars, or increase research funding through R&D tax credits.

Commercializing Research. Initiatives that promote the conversion of research into technologies and products with high commercial potential include proof-of-concept funds and centers, entrepreneurs-in-residence to assess commercial potential and develop commercialization strategies, and pilot-scale production and scalability testing.

Promoting Entrepreneurship. Enriching the skills and ability of entrepreneurs, increasing capacity of entrepreneurs to successfully grow and start companies, and improving the environment for entrepreneurial development can be delivered through many forms, including: venture development organizations, mentorship programs, and accelerators and incubators.

Increasing Access to Capital. The availability of capital to support startup and emerging companies is critical. Regions can address needs for capital through angel investor tax credits, investing in technology companies, using public funds to leverage private investment funds, and help companies access capital sources.

Technically Skilled Workforce. Approaches that regions can take to ensure the availability of a technically skilled workforce include encouraging more students to enter STEM fields, STEM internship programs and providing technical training for workers in existing companies.

* From the State Science & Technology Institute

State of Hawaii Efforts to Promote TBED

Area of TBED Focus	Responsible State Entity
Research Capacity	University of Hawaii
Commercializing Research	<ul style="list-style-type: none"> • University of Hawaii for university research (grants) • Hawaii Technology Development Corporation for private research (grants) • Hawaii Strategic Development Corporation (investments)
Promoting Entrepreneurship	Hawaii Technology Development Corporation
Increasing Access to Capital	Hawaii Strategic Development Corporation
Technically Skilled Workforce	University of Hawaii

The state's economic development strategy has emphasized organizational self-sufficiency. As a result, entities have pursued programs that focus on generating revenue to support their operations, like incubator rent revenue and licensing income from research, and not collaborative ecosystem and capacity building efforts.

In addition, too much policy emphasis has been placed on supporting research related activities while ignoring the need to promote entrepreneurship, access to capital and a tech workforce, the drivers of real economic activity and job creation. A successful TBED policy must be comprehensive and support all the elements required for a thriving tech-based economy.

Rather than simply create a new state entity that does not have a well-defined policy mandate it may be prudent to step back and assess:

1. Where does Hawaii stand in comparison to other states that are leading in this field?
2. What opportunities and challenges exist in Hawaii for growth in technology-based industries?
3. How does Hawaii become a leading center of technology-based industries?
4. What policy and organizational recommendations can we provide the Administration and Legislature to improve the capacity of the state to successfully execute a TBED Strategy?

The best way to develop a consensus on the appropriate path forward is to engage a consulting firm with domain expertise in TBED policy and programs. The consulting firm will work with the stakeholders in the state representing the areas of research capacity, research commercialization, entrepreneurship, access to capital and tech workforce development to produce a report that:

1. Sets out the objectives and benchmarks for the next 3-5-10 years that would put Hawaii on a trajectory to become a leading center of technology-based industries;
2. Identify specific programs and policies to implement that will drive economic growth in technology-based industries to achieve those objectives and benchmarks; and
3. Recommend organizational changes in the state to facilitate the successful implementation of those programs and policies.

HSDC ACCOMPLISHMENTS 2012-2018

Accelerators Establish Startup Ecosystem in Key Industry Sectors: Deploying the \$2 million Launch Akamai Venture Accelerator funding, HSDC helped establish accelerator programs in four key industry sectors: software, film and media, clean tech, and food innovation. UHERO's 2016 report, "Evolution of the HI Growth Initiative", concluded that HSDC leveraged state resources 11x and that HSDC's investment resulted in "the rapid growth in Hawaii based accelerators [that] may finally provide the necessary impetus to draw attention to entrepreneurship in the state, leading to further growth in venture capital, one of the necessary ingredients in a vibrant innovation ecosystem". HSDC supported accelerators achieved national recognition and are catalysts for their industry sectors through their mentor and investor networks, and the frequent community events they host to facilitate collaboration.

Continuum of Financing Creates Access to Startup Capital: HSDC's venture investment program helped to capitalize 6 funds spanning the pre-seed, seed and Series A stage of startup development. In their report, "Hawaii Venture Capital 2010 to 2018", Startup Capital Ventures documented the growth in venture capital in Hawaii. The report concluded that that HSDC's investment program significantly increased deal flow from 2012 onward through its establishment of various accelerator programs and investment funds. HSDC's \$13 million investment over this period attracted nearly \$235 million of investment. This activity generated \$24 million in state tax revenue and annual venture capital investment in the State is now averaging \$20 million a year. The US Treasury reported that Hawaii achieved 33x private capital leverage on its State Small Business Credit Initiative allocation, the highest in the nation.

Aquaculture Initiative to Jumpstart New Industry Sector: HSDC organized the first Statewide Aquaculture Summit, bringing together companies, researchers, investors, entrepreneurs and government agencies involved in Hawaii's aquaculture industry. The summit allowed the industry to articulate areas of strength, areas needing support, and recommendations on how to further develop the industry. This effort led to the successful funding for an aquaculture accelerator to be located at NELHA. HSDC was awarded a \$275,000 grant under the EDA's competitive Seed Fund Grant program. HSDC will partner with the University of Hawaii and NELHA and use this grant to build deal pipeline for the NELHA accelerator and support the capital raising activities of the investment fund affiliated with that accelerator.

Ecosystem Success Stories: Volta Charging, a Blue Startups graduate, has raised \$60 million to build its national network of EV charging stations. GVS released the film, "Running for Grace", in an 11-city national theatrical release and now available on the leading streaming services. The movie was completely filmed and produced on the Big Island utilizing GVS' Honua Studio. KinetiCor, commercialized UH and Queens technology to develop an image correction system for MRI machines. Siemens has incorporated the technology in its MRI machines. KinetiCor raised over \$12 million to grow and scale the business. IBIS Networks, a graduate of the Elemental Excelsior, has raised over \$4 million, and is now deploying its energy management system across California's community college system. OHi Superfood Bars, a graduate of the Maui Food Innovation Center, raised growth capital and is now selling its products in natural food retailers on the Mainland.



UNIVERSITY OF HAWAII SYSTEM

Legislative Testimony

Testimony Presented Before the
House Committee on Finance
February 21, 2019 at 12:30 p.m.

By
Vassilis L. Syrmos
Vice President for Research and Innovation
University of Hawai'i System

HB 624 HD1 – RELATING TO THE STRUCTURE OF GOVERNMENT

Chair Luke, Vice Chair Cullen and members of the Committee:

The University of Hawai'i (UH) would like to provide comments to HB 624 HD1, which transfers the rights, powers, functions, and duties of the Hawai'i Technology Development Corporation and Hawai'i Strategic Development Corporation to the University of Hawai'i.

Hawai'i's innovation ecosystem comprises of a vibrant and diverse number of incubators, accelerators, organizations, institutions of higher education and state agencies working to create a knowledge based economy that complements and transforms tourism, construction and military sectors to assure robust future growth by diversifying industries and revenues.

One of UH's four strategic directions is to grow the portfolio of its sponsored research and to promote innovation and workforce diversification in the state's economy. To help enable this, the Hawai'i State Legislature passed both Act 38 and Act 39, Session Laws of Hawai'i 2017, to allow UH to better engage in innovation and commercialization activities that include: the vetting the commercial potential of discoveries based on UH research, providing mentorship and entrepreneurial guidance to faculty or research staff, transferring UH-owned intellectual property to third parties via patents or licenses, and actively participating in public/private joint development, startup companies and partnerships.

The mission of the Hawai'i Technology Development Corporation (HTDC) is to help develop and retain high technology in the state through core initiatives that include the development and management of network of incubation services and facilities; business development services for new start-ups in the technology sector; secure and administer federal and private grants and contracts in support of technology research; and to support skilled workforce development for the technology sector through outreach programs and partnerships.

The charge of the Hawai'i Strategic Development Corporation (HSDC) is to develop investment capacity in the state and has combined various funding sources to implement a comprehensive investment program designed to generate a critical mass of startup activity to attract private capital investment.

By transferring the current functions of HTDC and HSDC into UH's existing research and innovation ecosystem, it is anticipated that both offices are aligned and complimentary to better assist with both the State of Hawai'i's continuing efforts and the University of Hawai'i's current and future innovation initiatives and programs.

Thank you for the opportunity to provide comments on this measure.

HB-624-HD-1

Submitted on: 2/19/2019 3:42:09 PM

Testimony for FIN on 2/21/2019 12:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Chenoa Farnsworth	Blue Startups	Oppose	No

Comments:

We strongly oppose the merger of HSDC and HTDC into the University of Hawaii. Both HSDC and HTDC programs have been instrumental to the success of the Blue Startups program and many other accelerator and technology programs around the State. Merging these agencies into the University will limit their effectiveness, functionality and reach into the community.

The future of our burgeoning innovation sector in Hawaii depends on continued public support for growth. We are building a new economic sector in Hawaii and providing high paying knowledge worker jobs to our people.

Hawaii Strategic Development Corporation (HSDC) provides seed investment dollars to attract additional private investments into the state.

- Because of HSDC's initial capital commitments to date, Blue Startups has been able to raise and invest \$2.4 million into 76 startup companies, which has been leveraged 50X, bringing in an additional \$115 million in follow on capital.

Hawaii Technology Development Corporation (HTDC) provides grant dollars to support accelerator operations and community events in the innovation sector.

- HTDC accelerator grant assistance helps Blue Startups run its nationally recognized a 13-week mentorship program providing entrepreneurs with strategic advice and business connections. We have completed 10 cohorts have with over 300 founders.
- HTDC events grant assistance helps with the annual East Meets West program which brings together investors and entrepreneurs from throughout the Pacific, highlighting Hawaii as Startup Paradise to the world. Over 500 attendees come out for this event including venture capitalists controlling billions of dollars in capital.

The HSDC and HTDC programs have been critical to the initial development and continued growth of the innovation sector in Hawaii. We believe now is not the time to abandon these efforts, but to double down on our successes to achieve our ultimate goal of building the innovation economy in Hawaii.

HB-624-HD-1

Submitted on: 2/17/2019 3:29:34 PM

Testimony for FIN on 2/21/2019 12:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Joseph Kohn MD	We Are One, Inc. - www.WeAreOne.cc - WAO	Comments	No

Comments:

There must be public oversight and accountability for all actions by the University of Hawaii and approval of any and all controversial land use, ie TMT, Haleakala, etc. The Public Trust Doctrine must be upheld over corporate exploitation of State resources.

www.WeAreOne.cc