



Statement of
Hermann Kugeler
Business Development Manager
Makai Ocean Engineering, Inc.

before the
Senate Committee on Energy, Economic Development, and Tourism
And
Senate Committee on Technology

Friday, March 15, 2019
3:30pm
State Capitol, Conference Room 414
In consideration of
HB340

RELATING TO THE HAWAII TECHNOLOGY DEVELOPMENT CORPORATION.

Chair Wakai, Vice Chair Taniguchi, and Members of the Committee on EET
And
Chair Keohokalole, Vice Chair English, and Members of the Committee on TEC

Makai Ocean Engineering, Inc. **STRONGLY SUPPORTS HB340** that makes an appropriation to HTDC to continue providing grants to businesses with federal small business innovation research (SBIR) award, and manufacturing programs.

Makai Ocean Engineering, Inc. is a locally-owned and operated technology company based in Hawaii for over 45 years and an active participant in the Small Business Innovation Research (SBIR) grant program. The SBIR program consists of three phases that encourages early stage investment and innovation in technology. Phase 1 provides a very small amount of money that is barely enough for proof of concept research. However, it is the Phase 2 and 3 funding stages that really provide a means of development for companies to transition the idea and research conducted in Phase I, to prototyping to commercialization.

According to HTDC, for every dollar invested through this program, Hawaii companies have attracted 20 federal dollars in return to the state, plus commercialization funding. The Hawaii SBIR program supports projects with vetted technology backed with federal funds. The state matching funds are critical in advancing development, which helps win later phase awards and assists in getting the technology out into the market. The SBIR matching grants assist companies that have a commercially-promising project that has a difficult development plan. Carefully selected matching grants represent more of a “sure bet” in terms of a successful and highly leveraged investment in economic development for the State, and growing our tech sector.

For example, Makai’s subsea cable laying software began as a Phase 1 SBIR (matched by State for \$20k in the year 2000) and then went on to Phase 2 and 3 and became the world’s #1 commercial cable laying software, with over \$30 million in commercial revenues and high tech jobs for Hawaii over the last 18 years. This is a direct multiplier of more than 1,500X for the State’s investment, not counting the indirect benefits of retaining some of the world’s best engineers in Hawaii and the additional technologies they have generated during this time.



Makai is currently working on a Phase 2 SBIR program focused on autonomous underwater vehicles, which could easily surpass the \$30 million cable laying software in terms of revenue to the state. Our federal customer noted that the work we had performed on the underwater vehicle under the HTDC Hawaii State matching grant program was a key reason we were selected for an additional \$2.1 million award that is currently underway. Makai will be testing this underwater vehicle technology in Hawaiian waters in the summer of 2019 using local engineers.

In addition, Makai and Referentia were two local companies honored with a national award, the SBIR Tibbetts Award at the Whitehouse in January, 2017. This award recognizes the very best SBIR companies in the country whose technologies have made a strong economic impact in terms of high paying jobs, and displaying success in **actually commercializing federal R&D**. We need this HTDC administered program to make possible more national success stories by local companies. See the Governor's press release about awards here: <http://governor.hawaii.gov/newsroom/latest-news/dbedt-news-release-htdc-small-business-grantees-honored-with-national-tibbetts-award-at-the-white-house/>

Makai Ocean Engineering, Inc. has historically been an engineering services provider, but now, with the help of the State's current manufacturing assistance program, Makai is diversifying into low-volume manufacturing. Makai has been involved in marine-related engineering in Hawaii for over 44 years, and recently began a heat exchanger R&D program. Now, we are ramping up production a small manufacturing plant for heat exchangers on the Big Island of Hawaii, which is sustaining approximately 8 highly-skilled, high-paying STEM / engineering jobs in rural Kona. We have a strategic advantage for developing and manufacturing low-volumes of these components in Hawaii for two reasons: the U.S. Navy and Air Force's presence in Hawaii, and Makai already owns and operates a marine heat exchanger test facility and marine corrosion lab on the Big Island. As an example, Makai was recently awarded a contract to design a new heat exchanger for the U.S. Air Force's next generation aircraft, including the new F-35 fighter jet, and we hope to be manufacturing units over the coming years.

The program limits reimbursement to 20% of qualified expenses capped at \$100,000. Because they are matching funds, a manufacturer is eligible only if they are already making an investment in the local community and providing jobs. The program amplifies these efforts, and shows the State's support for local manufacturers willing to make the investment and commitment to adding jobs, and growing their businesses and the industry in Hawaii.

This is why we **STRONGLY SUPPORT HB340**, which would provide the state matching funds for federal SBIR programs and manufacturing assistance to enable companies to commercialize new technologies more effectively. Not only would this expansion of funding enable our tech industry to compete and win more Federal monies for technology development and manufacturing, it would provide highly-skilled professional jobs for our keiki here at home.

Thank you for the opportunity to offer these comments.



Statement of
Russell Adkins
CFO
Maui Brewing Company
before the
House Committee on Energy, Economic Development & Tourism
And
House Committee on Technology
Friday, March 15, 2019
3:30 p.m.
State Capitol, Conference Room 414

In consideration of
HB340, HD1
RELATING TO THE HAWAII TECHNOLOGY DEVELOPMENT CORPORATION

Chair Keohokalole, and Members of the Committee on Technology, and Chair Wakai and Members of the Committee on Energy, Economic Development, and Tourism.

Maui Brewing Company **supports** HB340 HD1 that appropriates funds to the Hawaii Technology Development Corporation for the Small Business Innovation Research program and Manufacturing Assistance Program. The bill also disallows HTDC grants to businesses that were awarded a competitive contract from the Department of Defense to research hydrodynamics and demand response and makes an appropriation into, and out of, the Alternative Energy Research and Development Revolving Fund for the purpose of providing grants.

As you are aware, Manufacturing is at a significant disadvantage when competing with international manufacturing and even Mainland manufacturing due to our geographical location and high cost of doing business. The HTDC grants that we have received in the past have been instrumental in helping our business level the playing field when we invest in machinery by helping keep our equipment investment expenditures affordable in what is already a high cost environment. We highly recommend that HTDC continue to receive its funding and if possible, receive a larger allocation than they have in the most recent years. We are proving that manufacturing is viable in Hawaii, and we believe that the HTDC grants will encourage new manufacturing as well.

Thank you for the opportunity to offer these comments.

Handcrafted Ales & Lagers Brewed with Aloha

605 Lipoa Parkway, Kihei, HI 96753

808.213.3002

Russell Adkins, CFO
Maui Brewing Company

Handcrafted Ales & Lagers Brewed with Aloha
605 Lipoa Parkway, Kihei, HI 96753
808.213.3002



Written Statement of
DR. PATRICK K. SULLIVAN
PRESIDENT/CEO OCEANIT

Before the
SENATE COMMITTEE ON ENERGY, ECONOMIC DEVELOPMENT and TOURISM

March 15, 2019
3:30 p.m.
State Capitol, Conference Room 414

In Support of
**HB340 RELATING TO THE HAWAII TECHNOLOGY
DEVELOPMENT CORPORATION**

To: Chair Senator Glenn Wakai, Vice Chair Senator Brian T. Taniguchi, and
Members of the Committee

From: Dr. Patrick K. Sullivan, President/CEO

Re: Testimony in Support of HB340

Honorable Chair, Vice-Chair and Committee Members:

Thank you for the opportunity to submit testimony **in support of HB340**

The technology industry in Hawaii has grown over the past 12 years and has made significant strides towards achieving the goal of diversifying and stimulating Hawaii's economy. The continuation of the Small Business Innovation Research ("SBIR") grants is crucial to move the technology towards prototyping, customer interface, and commercialization,

The objectives of the SBIR grants are:

- To support economic growth and the diversification of our economy;
- To launch new ventures based on technology innovations; and
- To support the growth of the tech industry and the creation of intellectual property and innovation in the State.

We strongly urge you to support of HB340 and we appreciate your continued support of the technology industry.

HB-340-HD-1

Submitted on: 3/13/2019 5:04:56 PM

Testimony for EET on 3/15/2019 3:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Dirk Koeppenkastrop	Testifying for IL Gelato Hawaii	Support	No

Comments:

Statement of

Dirk Koeppenkastrop, Ph.D.

Owner

IL Gelato Hawaii

before the

House Committee on Energy, Economic Development & Tourism

And

House Committee on Technology

Friday, March 15, 2019

3:30 p.m.

State Capitol, Conference Room 414

In consideration of

HB340, HD1

RELATING TO THE HAWAII TECHNOLOGY DEVELOPMENT CORPORATION

Chair Keohokalole, and Members of the Committee on Technology, and Chair Wakai and Members of the Committee on Energy, Economic Development, and Tourism.

IL Gelato Hawaii **supports** HB340 HD1 that appropriates funds to the Hawaii Technology Development Corporation for the Small Business Innovation Research program and Manufacturing Assistance Program. The bill also disallows HTDC grants to businesses that were awarded a competitive contract from the Department of Defense to research hydrodynamics and demand response and makes an appropriation into, and out of, the Alternative Energy Research and Development Revolving Fund for the purpose of providing grants.

We are a local small business and produce high quality gelato with all natural mostly local ingredients. We have many young employees who love and are proud about what they do. Doing business in Hawaii is very difficult and we need assistance grants in order to afford the equipment needed to efficiently produce and to keep up with productivity requirements to stay in business.

Thank you for the opportunity to offer these comments.



Statement of

Premier Solutions HI LLC

before the

Hawaii State Senate
COMMITTEE ON ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM
& COMMITTEE ON TECHNOLOGY

Friday, March 15, 2019

State Capitol, Conference Room 414

In consideration of

HB340, HD1

RELATING TO THE HAWAII TECHNOLOGY DEVELOPMENT CORPORATION

Honorable Chair and Committee Members,

Premier Solutions HI LLC, a Honolulu-based, SBA-certified disadvantaged minority-owned and woman-owned small business that provides information technology, systems development and professional services to government and commercial customers, writes to offer our **STRONG SUPPORT** of HB340, HD1, which allocates funding to HTDC for the small business innovation research program.

Premier Solutions HI (PSHI) has benefited greatly from the programs offered by HTDC such as the Hawaii SBIR matching grant and the bi-annual Hawaii SBIR Conference. In 2017 PSHI was awarded our first Small Business Innovation Research contract from the Naval Supply Systems Command. In 2018, we were successful in winning Phase II funding of \$750,000 for that project. PSHI also won two additional Phase I SBIR awards from the Navy in in 2018.

HSBIR Phase I matching funds of \$60,000 were critical in this success, allowing us to travel from Hawaii to our mainland-based Navy customers, build invaluable relationships with our Federal sponsors, and develop product prototypes that exceeded our customer's expectations. HSBIR funding also allowed us to make investments in our Hawaii-based engineering staff. We plan to continue our growth as we build upon the new capabilities our SBIR success has provided, and are currently seeking to hire more Hawaii-based engineers.



We are very thankful for the support provided by HTDC and the State of Hawaii, and respectfully ask that the legislature pass HB340, HD1.

If you have any questions, please feel free to contact me at steveb@premiersolutionshi.com

Very respectfully,
Steve Brennan
Premier Solutions LLC
845 Fort Street, Suite 800
Honolulu, HI 96813
steveb@premiersolutionshi.com

HB-340-HD-1

Submitted on: 3/13/2019 9:26:17 PM

Testimony for EET on 3/15/2019 3:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Ehsan Yavari	Testifying for Adnoviv	Support	No

Comments:

Statement of

Ehsan Yavari

VP of Research

Adnoviv LLC

before the

House Committee on Energy, Economic Development & Tourism

And

House Committee on Technology

Friday, March 15, 2019

3:30 p.m.

State Capitol, Conference Room 414

In consideration of

HB340, HD1

RELATING TO THE HAWAII TECHNOLOGY DEVELOPMENT CORPORATION

Chair Keohokalole, and Members of the Committee on Technology, and Chair Wakai and Members of the Committee on Energy, Economic Development, and Tourism.

Adnoviv **supports** HB340 HD1 that appropriates funds to the Hawaii Technology Development Corporation for the Small Business Innovation Research program and Manufacturing Assistance Program. The bill also disallows HTDC grants to businesses that were awarded a competitive contract from the Department of Defense to research hydrodynamics and demand response and makes an appropriation into, and out of, the Alternative Energy Research and Development Revolving Fund for the purpose of providing grants.

Adnoviv is a technology startup specialized in True Presence Occupancy Detection Sensors (TruePODS) and we are the first to employ Doppler radar technology to detect true human presence in indoor spaces. TruePODS' revolutionary approach to occupancy sensing goes beyond the current generation of simple motion sensors to actually detect human "life signs" such as respiration and heartbeat, thus eliminating common false triggering issues. TruePODS technology provides the solution to the reliability problems long associated with traditional occupancy sensors and currently limiting their widespread adoption and effectiveness. TruePODS with more reliable and accurate performance can maximize the potential 50% energy saving which was reported by previous studies, but not realized due to the limitation of current available occupancy sensors in the market.

The HTDC grant was of enormous help to Adnoviv. Without the matching fund, there was a period that we literally had to shut down all the operations due to lack of funding and the matching fund enabled us to bridge the gap between two rounds of funding and avoiding layoffs. Furthermore, National Science Foundation grant is strictly limited to research and development; As a start up, we need to do marketing, fund raising, patent filing, etc ... which is not covered by federal grants but they expect us to do. The HTDC grant helped us to cover the business development costs which is critical to every start up.

According to HTDC for every dollar invested through this program, Hawaii companies have attracted 20 federal dollars in return to the state, plus commercialization funding. The Hawaii SBIR program supports projects with vetted technology backed with federal funds. The state matching funds are critical to winning later phase awards and getting some of the technologies to market.

Thank you for the opportunity to offer these comments.



Statement of

William Latham
Chief Technical Officer
Tridentis AMV, LLC.

before the

House Committee on Energy, Economic Development & Tourism
And

House Committee on Technology

Friday, March 15, 2019

3:30 p.m.

State Capitol, Conference Room 414

In consideration of

HB340, HD1

RELATING TO THE HAWAII TECHNOLOGY DEVELOPMENT CORPORATION

Chair Keohokalole, and Members of the Committee on Technology, and Chair Wakai and Members of the Committee on Energy, Economic Development, and Tourism.

Tridentis AMV, LLC. **supports** HB340 HD1 that appropriates funds to the Hawaii Technology Development Corporation for the Small Business Innovation Research program and Manufacturing Assistance Program. The bill also disallows HTDC grants to businesses that were awarded a competitive contract from the Department of Defense to research hydrodynamics and demand response and makes an appropriation into, and out of, the Alternative Energy Research and Development Revolving Fund for the purpose of providing grants.

Tridentis AMV is actively continuing our project to develop and market our Advanced Coastal Monitor (ACM) Autonomous Surface Vehicle for use by the National Oceanographic and Atmospheric Administration (NOAA) and other entities. This vehicle will provide cost effective scientific survey capabilities to NOAA and the State of Hawaii in the often neglected coastal zone for which it was specifically designed. This grant will allow us to continue our ground breaking controls development for collision avoidance to allow safer operation near shore, and continues the work originally funded under NOAA SBIR and HTDC grants. It will also allow us to perform further prototype operational testing to refine the design as we move forward. We expect to expand our technical team with an additional controls and/or electronics design engineer directly supporting this program as we continue forward.

Under a separate NOAA SBIR grant we are designing an Autonomous Underwater Vehicle specifically designed to map and evaluate the health of coral reefs. We hope to leverage this program in the future to accelerate the development of that platform and get it to market faster.

Thank you for the opportunity to offer these comments.

Advanced Marine Vehicles, LLC

73-4460 Queen Kaahumanu Hwy ▪ Suite 138 ▪ Kailua Kona, HI ▪ 96740



Maui Ku'ia Estate Chocolate Inc.

134 Keoawa Street
Lahaina HI 96761

Statement of

Dr. Gunars Valkirs

CEO

Maui Ku'ia Estate Chocolate, Inc.

before the

House Committee on Energy, Economic Development & Tourism

And

House Committee on Technology

Friday, March 15, 2019

3:30 p.m.

State Capitol, Conference Room 414

In consideration of

HB340, HD1

**RELATING TO THE HAWAII TECHNOLOGY DEVELOPMENT
CORPORATION**

Chair Keohokalole, and Members of the Committee on Technology, and Chair Wakai and Members of the Committee on Energy, Economic Development, and Tourism.

Maui Ku'ia Estate Chocolate, Inc. **supports** HB340 HD1 that appropriates funds to the Hawaii Technology Development Corporation for the Small Business Innovation Research program and Manufacturing Assistance Program. The bill also disallows HTDC grants to businesses that were awarded a competitive contract from the Department of Defense to research hydrodynamics and demand response and makes an appropriation into, and out of, the Alternative Energy Research and Development Revolving Fund for the purpose of providing grants.

Maui Ku'ia Estate Chocolate, Inc. (MKEC) is building a state-of-art, automated, chocolate factory to process raw cacao sourced exclusively from a 50-acre cacao farm which was started in 2013 and located on leased Kamehameha Schools land in Lahaina, and from single origin cacao from regions in Ecuador and the Amazon. The finished products will be a variety of high quality dark chocolate and dark milk chocolate, designated as "Made in Maui" and "Grown and Made in Maui." At full production, the factory will be capable of producing close to 80,000 kg or 176,000 lbs of chocolate. This factory and the business model will establish Maui as a producer of one of the best chocolates in the world. The factory is 100% off the grid, powered by 300kW of



Maui Ku'ia Estate Chocolate Inc.

134 Keoawa Street
Lahaina HI 96761

solar with 1050 kWh of Tesla batteries and a 200kW backup generator. This is supportive of Hawaii's goal of clean energy independence.

The MAP Grant program is critical to MKEC's ability to establish local manufacturing, create up to 30 jobs over a five-year period, support local agriculture, and create a new productive industry featuring cacao and chocolate.

Most importantly, MKEC will donate 100% of its net-profit to Maui charities and non-profit organizations. Over ten years this could be in the millions of dollars. The Small Business Innovation Research program and Manufacturing Assistance Program are essential to help defray the significant cost of capital and provide technical expertise in food safety, international sales, packaging, factory operations, marketing, and process facility optimization.

Thank you for the opportunity to offer these comments.

96-1205 Waihona Street, Pearl City, Hawaii 96782



Phone: (808) 687-6277 Fax (808) 681-7159

ALOHA SHOYU COMPANY

Statement of
David Y. Morikawa
Vice President - Operations

**Testimony to the House Committee on Energy,
Economic Development and Tourism
Friday, March 15, 2019 at 3:30 P.M.
Conference Room 414, State Capitol**

In consideration of
HOUSE BILL 340, HD1
RELATING TO THE HIGH TECHNOLOGY DEVELOPMENT CORPORATION

Chair Keohokalole and Members of the Committee on Technology, and Chair Wakai and Members of the Committee on Energy, Economic Development, and Tourism:

The Aloha Shoyu Company, Ltd. **supports** HB 340, HD1 that appropriates funds to HTDC for the Small Business Innovation Research program and the Manufacturing Development Program. The bill also disallows HTDC grants to businesses that were awarded a competitive contract from the Department of Defense to research hydrodynamics and demand response and makes an appropriation into, and out of, the Alternative Energy Research and Development Revolving Fund for the purpose of providing grants.

Thank you for the opportunity to offer these comments.



Written Statement of
Len Higashi
Acting Executive Director
Hawaii Technology Development Corporation
before the
**Senate Committee on Energy, Economic Development, and Tourism
and the
Senate Committee on Technology**
Friday, March 15, 2019
3:30 p.m.
State Capitol, Conference Room 414

In consideration of
HB340, HD1
RELATING TO THE HAWAII TECHNOLOGY DEVELOPMENT CORPORATION.

Chairs Wakai and Keohokalole, Vice Chairs Taniguchi and English, and Members of the Committees,

The Hawaii Technology Development Corporation (HTDC) **supports** HB340, HD1 that appropriates funds to the Hawaii Technology Development Corporation for the Small Business Innovation Research program and Manufacturing Assistance Program. The bill also disallows HTDC grants to businesses that were awarded a competitive contract from the Department of Defense to research hydrodynamics and demand response and makes an appropriation into, and out of, the Alternative Energy Research and Development Revolving Fund for the purpose of providing grants.

As part of HTDC’s vision to create 80,000 new innovation jobs in Hawaii earning \$80,000 or more by 2030, HTDC supports initiatives aimed at promoting technology and innovation jobs. HTDC has been providing Phase I matching grants to SBIR awarded companies since 1989 and started awarding Phase II and Phase III matching grants in FY16. A summary of the Phase II/III awards made by the matching grant program is listed below:

	FY16	FY17	FY18
Appropriation	\$2 MM	\$2 MM	\$1 MM
# of Applications	11	9	9
# of Awards	7	8	5
\$\$ Awarded	\$2 MM	\$1.9 MM	\$900 K
Federal SBIR \$\$ (match)	\$7.9 MM	\$10.9 MM	\$8.0 MM
Estimated New Jobs	17	70	15

The FY19 appropriation has not been awarded yet. Every year, there have been more qualified applicants than available funds. Since the Phase II/III program started in FY16, none of the applicants have received the full eligible amount. Over time, the program is anticipated to generate the same type of metrics of success as the Phase I matching program. 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 FY18, the MAP grant program funded 29 of the 51 applicants a total of \$930k with the companies investing over \$13.6 million. The program had \$876 million of total economic impact (2017). The Office of Naval Research Alternative Energy Research (HONR) grant program last awarded in FY17. In FY17, all 3 companies that applied were awarded a total of \$950,000. The companies matched the State award with a total of \$10.2 million of federal funds.

HTDC believes the grant programs provide leverage and positive economic development value for the State. We support this request provided it does not supplant the Governor's priorities in the Administrative budget. Thank you for the opportunity to offer these comments.

Statement of
Dr. Michael Reiley
President, HNu Photonics, LLC
before the
House Committee on Energy, Economic Development & Tourism
And
House Committee on Technology
Friday, March 15, 2019
3:30 p.m.
State Capitol, Conference Room 414

In consideration of
HB340, HD1
RELATING TO THE HAWAII TECHNOLOGY DEVELOPMENT CORPORATION

Chair Keohokalole, and Members of the Committee on Technology, and Chair Wakai and Members of the Committee on Energy, Economic Development, and Tourism.

HNu Photonics **STRONGLY SUPPORTS** HB340 HD1 that appropriates funds to the Hawaii Technology Development Corporation for the Small Business Innovation Research program and Manufacturing Assistance Program. The bill also disallows HTDC grants to businesses that were awarded a competitive contract from the Department of Defense to research hydrodynamics and demand response and makes an appropriation into, and out of, the Alternative Energy Research and Development Revolving Fund for the purpose of providing grants.

Recognizing that small businesses are the engine of economic growth in the United States, many Federal agencies fund early-stage research endeavors under the Small Business Innovative Research (SBIR) program. SBIR awards are extremely competitive with an overall win probability of about 15%.

These awards are firm fixed price at predetermined funding levels, regardless of the geographic location of the Company. This puts Hawaii companies at a distinct disadvantage to companies from many other states because our cost of doing business is so much higher. From salaries to facilities to taxes to travel expenses, it is much more difficult for Hawaii companies to deliver results to win awards for additional phases of SBIR research under a fixed budget.

The Hawaii SBIR matching grant program is crucial for leveling the playing field to enable Hawaii companies, who have been successful in winning an SBIR award, to deliver results of a caliber to secure funding for subsequent SBIR phases.

My company has been the grateful recipient of multiple of these matching awards and it has made an enormous contribution to accelerating much-needed technologies for NASA, the U.S. Army, the U.S. Air Force, and the Defense Logistics Agency. This program truly has a real impact on economic development and diversification.

For my company, SBIR projects and matching Phase I and Phase II grants have directly resulted in our ability to hire additional qualified staff including multiple full-time staff, who have graduated from University of Hawaii, Maui College or UH Manoa. These new hires would not have been possible without the funding from both our SBIR awards and the HTDC matching grants. Living wage jobs for Kama'aina graduates are a tangible outcome of this program. Mahalo!



Statement of
Jason Heckathorn
CEO
Forever Oceans
before the
House Committee on Energy, Economic Development & Tourism
And
House Committee on Technology
Friday, March 15, 2019
3:30 p.m.
State Capitol, Conference Room 414

In consideration of
HB340, HD1
RELATING TO THE HAWAII TECHNOLOGY DEVELOPMENT CORPORATION

Chair Keohokalole, and Members of the Committee on Technology, and Chair Wakai and Members of the Committee on Energy, Economic Development, and Tourism.

Forever Oceans **supports** HB340 HD1 that appropriates funds to the Hawaii Technology Development Corporation for the Small Business Innovation Research program and Manufacturing Assistance Program.

Forever Oceans is a small business focused on aquaculture technology. Our development facility is based in Kona, Hawaii. We have been fortunate enough to win several federal government grants for innovation of technologies in robotics and machine learning. While these programs helped stimulate capabilities, they do not provide for the comprehensive development costs or set-up of manufacturing. These costs can be substantial and even insurmountable for growing companies. The HTDC programs have been the "missing link" for us twice with grants that allowed us to commercialize industry leading technologies. Through these successes Forever Oceans has been able to add several high-paying jobs for technology experts at our Kona facility. Thus, it is with great passion that we encourage you to recognize this vital role of HTDC and continue the funding of MAP.

Thank you for the opportunity to offer these comments.



4009 Black Point Rd, Honolulu, HI 96816 • (206) 588-5811

Statement of
Rex Jakobovits, PhD
President, Experiad Solutions
before the
House Committee on Energy, Economic Development & Tourism
And
House Committee on Technology
Friday, March 15, 2019
3:30 p.m.
State Capitol, Conference Room 414

In consideration of
HB340, HD1
RELATING TO THE HAWAII TECHNOLOGY DEVELOPMENT
CORPORATION

Chair Keohokalole, and Members of the Committee on Technology, and Chair Wakai and Members of the Committee on Energy, Economic Development, and Tourism.

Experiad **supports** HB340 HD1 that appropriates funds to the Hawaii Technology Development Corporation for the Small Business Innovation Research program and Manufacturing Assistance Program. The bill also disallows HTDC grants to businesses that were awarded a competitive contract from the Department of Defense to research hydrodynamics and demand response and makes an appropriation into, and out of, the Alternative Energy Research and Development Revolving Fund for the purpose of providing grants. My Honolulu software startup, Experiad Technologies, has raised \$5M in federal SBIR grants from the National Institutes of Health. We are developing software that will change how healthcare is performed in a wide range of fields, including the treatment of autism. I am a Kalani grad who went on to earn a PhD in computer science. Thanks in part to HTDC's matching SBIR program, I am happy to be back home now, winning millions of federal dollars to build a company that will ultimately create many local high-tech jobs.

During critical stages of our development effort, we received matching HISBIR funds from HTDC. **The HISBIR matching funds were critical to helping us expand our team and meet the goals of our research. The HISBIR program was directly responsible for us bringing in our 2nd \$1.8M Phase II award last year.** To date, the majority of our expended funds have been spent on employees in Hawaii. This is direct, compelling evidence that dollars invested in HISBIR matching funds attract large amounts of federal



4009 Black Point Rd, Honolulu, HI 96816 • (206) 588-5811

dollars in return to the state, which is seeding a sustainable business that will ultimately lead to an expansion of our local workforce for years to come.

Mahalo for listening,

A handwritten signature in black ink that reads "Rex Jakobovits". The signature is fluid and cursive, with a large initial "R" and a long, sweeping underline.

Rex Jakobovits, PhD



1928 Republican Street Honolulu, HI 96819 Phone: (808) 845-9868 Fax: (808) 848-7848

Statement of
Jimmy Chan
Owner
Hawaiian Chip Company
before the
House Committee on Energy, Economic Development & Tourism
And
House Committee on Technology
Friday, March 15, 2019
3:30 p.m.
State Capitol, Conference Room 414

In consideration of
HB340, HD1
RELATING TO THE HAWAII TECHNOLOGY DEVELOPMENT CORPORATION

Chair Keohokalole, and Members of the Committee on Technology, and Chair Wakai and Members of the Committee on Energy, Economic Development, and Tourism.

Hawaiian Chip Company **supports** HB340 HD1 that appropriates funds to the Hawaii Technology Development Corporation for the Small Business Innovation Research program and Manufacturing Assistance Program. The bill also disallows HTDC grants to businesses that were awarded a competitive contract from the Department of Defense to research hydrodynamics and demand response and makes an appropriation into, and out of, the Alternative Energy Research and Development Revolving Fund for the purpose of providing grants.

The Hawaiian Chip Company is a manufacturer of taro & sweet potato chips with operations based in Honolulu. With assistance from HTDC in the form of training and professional consultation the company was able to implement a comprehensive food safety plan. This plan is essential in protecting the company's nearly three million dollars in annual revenue because it meets the criteria of new federal guidelines. Ensuring operations will continue also allows for retention of the company's twenty employees. The Hawaiian Chip Company would have struggled to achieve compliance without help from HTDC's technical and safety training sessions. HTDC also provided assistance in purchasing equipment which has contributed to a ten percent increase so far in 2019's sales in comparison to the same period in 2018.

« Recipient's Name »
« Subject »

March 14, 2019

2

Thank you for the opportunity to offer these comments.

Diagenetix Inc

Biological Risk-Assessment in the Palm of your Hand

Statement of
Ryo Kubota
CEO
Diagenetix, Inc.
before the
House Committee on Energy, Economic Development & Tourism
And
House Committee on Technology
Friday, March 15, 2019
3:30 p.m.
State Capitol, Conference Room 414

In consideration of
HB340, HD1
RELATING TO THE HAWAII TECHNOLOGY DEVELOPMENT CORPORATION

Chair Keohokalole, and Members of the Committee on Technology, and Chair Wakai and Members of the Committee on Energy, Economic Development, and Tourism.

Diagenetix, Inc. **supports** HB340 HD1 that appropriates funds to the Hawaii Technology Development Corporation for the Small Business Innovation Research program and Manufacturing Assistance Program. The bill also disallows HTDC grants to businesses that were awarded a competitive contract from the Department of Defense to research hydrodynamics and demand response and makes an appropriation into, and out of, the Alternative Energy Research and Development Revolving Fund for the purpose of providing grants.

Diagenetix, Inc. provides a mobile gene-based diagnostic platform for a variety of industries, particular food safety, agriculture, and healthcare. Our handheld diagnostic unit, called BioRanger allow to perform on-site diagnostics through mobile phone App, and enable to share the test results through the cloud server in real-time. The company's mission is to make molecular diagnostics more accessible and applicable and visualize the threats of infectious disease.

Diagenetix manufactures BioRanger units locally in Hawaii and Manufacturing Assistant Program (MAP) is very attractive program for us because it supports the effort and the cost of the manufacturing process. Since BioRanger unit is an electronic device, it requires specialized tools and apparatus, and the assembly line requires meticulous skill sets. The training process for the assembly line requires tremendous amount of time and effort and currently we are getting more inquiries from oversea customers. MAP is an important resource for us as our business grows more in order to fulfill the demands from our markets.

3669 Woodlawn Drive Apt. C, Honolulu, HI 96822

Phone: (808) 542-4503, E-mail: info@diagenetix.com, Website: diagenetix.com

March 14, 2019 2

**House Committee on Energy, Economic Development & Tourism And
House Committee on Technology
HB340, HD1
RELATING TO THE HAWAII TECHNOLOGY DEVELOPMENT CORPORATION**

Diagenetix is awarded Small Business Innovation Research grant (SBIR) Phase I grant from US Department of Agriculture. This project mainly focus on the development of new gene-based diagnostic platform for food safety industry. If we successfully complete the research and development phase of this project and move on to the manufacturing process, MAP will reduce our financial risk to add a new product line and support the growth of our business.

Thank you for the opportunity to offer these comments.

Sincerely,



Statement of
Scott A. Wecker
Director of Business Development
Maui Innovation Group, Inc.
before the
House Committee on Energy, Economic Development & Tourism
And
House Committee on Technology
Friday, March 15, 2019
3:30 p.m.
State Capitol, Conference Room 414

In consideration of
HB340, HD1
RELATING TO THE HAWAII TECHNOLOGY DEVELOPMENT CORPORATION

Chair Keohokalole, and Members of the Committee on Technology, and Chair Wakai and Members of the Committee on Energy, Economic Development, and Tourism.

Maui Innovation Group, Inc. **supports** HB340 HD1 that appropriates funds to the Hawaii Technology Development Corporation for the Small Business Innovation Research program and Manufacturing Assistance Program. The bill also disallows HTDC grants to businesses that were awarded a competitive contract from the Department of Defense to research hydrodynamics and demand response and makes an appropriation into, and out of, the Alternative Energy Research and Development Revolving Fund for the purpose of providing grants.

The Maui Innovation Group, Inc. is developing a new Magnetic Valve technology that completely eliminates leaks and fugitive emissions promising to significantly reduce air pollution, fuel spills, and the loss of potable water and fuel resources. Over the past 8 years, HTDC has been a strong supporter and has assisted us in our development of Magnetic Valve prototypes, our marketing development with the Oil & Gas Industry, and commercial Valve manufacturers, and in our securing of 9 U.S. patents and Patents Pending. With HTDC's help and guidance, we were recently awarded an Air Force SBIR Phase I contract and are the process of developing new Phase II and Phase III proposals that we anticipate leading to substantial sales and licensing revenues in the coming months.

Thank you for the opportunity to offer these comments.

Statement of
Nelson Kanemoto
President and CEO
Referentia Systems Incorporated
before the
House Committee on Energy, Economic Development & Tourism
And
House Committee on Technology
Friday, March 15, 2019
3:30 p.m.
State Capitol, Conference Room 414

In consideration of
HB340, HD1
RELATING TO THE HAWAII TECHNOLOGY DEVELOPMENT CORPORATION

Chair Keohokalole, and Members of the Committee on Technology, and Chair Wakai and Members of the Committee on Energy, Economic Development, and Tourism.

Referentia Systems **strongly supports** HB340 HD1 that appropriates funds to the Hawaii Technology Development Corporation for the Small Business Innovation Research program and Manufacturing Assistance Program.

Referentia Systems is a technology company with headquarters in Honolulu, Hawaii. Over the past 15 years, HTDC's grant funding has supported and enabled Referentia to develop proprietary technologies that are being commercialized within the State and on the U.S. mainland through several technology spin-offs.

One such technology and spin-off is LiveAction Inc., www.liveaction.com, which, on the basis of the technology supported by SBIR funding, raised over \$30 million in Series A and B venture financing. Most recently, with SBIR funding from HTDC, Referentia developed an innovative time-series database and analytics platform, in2lytics, which is providing the Hawaiian Electric Companies the insight needed to incorporate more renewables into their grid.

The grant that we received from HTDC in 2017 significantly helped further develop and commercialize this product, helping Hawaii work towards the goal of 100% renewables. More importantly, the funding helped position our technology platform to be the back-end database for a U.S. mainland partner with 900 electric utility co-operative customers. This achieves the State's objectives of increasing technology exports to grow high-tech companies and jobs at home.

Thank you for the opportunity to offer these comments in strong support of this measure.



1012 Piikoi St.
Honolulu HI 96814
www.spectrum-photonics.com

Statement of
Edward Knobbe
President
Spectrum Photonics
House Committee on Energy, Economic Development & Tourism
And
House Committee on Technology
Friday, March 15, 2019
3:30 p.m.
State Capitol, Conference Room 414

In consideration of
HB340, HD1
RELATING TO THE HAWAII TECHNOLOGY DEVELOPMENT CORPORATION

Chair Keohokalole, and Members of the Committee on Technology, and Chair Wakai and Members of the Committee on Energy, Economic Development, and Tourism.

Spectrum Photonics **supports** HB340 HD1 that appropriates funds to the Hawaii Technology Development Corporation for the Small Business Innovation Research program and Manufacturing Assistance Program. The bill also disallows HTDC grants to businesses that were awarded a competitive contract from the Department of Defense to research hydrodynamics and demand response and makes an appropriation into, and out of, the Alternative Energy Research and Development Revolving Fund for the purpose of providing grants.

Spectrum Photonics' core business is largely based on intellectual property licensed from University of Hawaii. During the past 8 years we have received approximately \$14,000,000 in federal SBIR contracts, which in turn has enabled Spectrum to win highly-competitive broad agency announcement (BAA) awards.

The Hawaii SBIR program supports projects with reviewed and vetted technologies, backed by investment of federal funds. The state matching funds are critical to winning later phase awards and getting HI-borne of the technologies to market.

Thank you for the opportunity to offer these comments.



Nalu Scientific
Data Acquisition Systems

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Phone: +1 (888) 717-6484
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March 14, 2019

Statement of
Isar Mostafanezhad, Ph.D.
Founder and CEO
Nalu Scientific, LLC
before the
House Committee on Energy, Economic Development & Tourism
And
House Committee on Technology
Friday, March 15, 2019
3:30 p.m.
State Capitol, Conference Room 414

In consideration of
HB340, HD1
RELATING TO THE HAWAII TECHNOLOGY DEVELOPMENT CORPORATION

Chair Keohokalole, and Members of the Committee on Technology, and Chair Wakai and Members of the Committee on Energy, Economic Development, and Tourism.

Nalu Scientific, LLC **supports** HB340 HD1 that appropriates funds to the Hawaii Technology Development Corporation for the Small Business Innovation Research program and Manufacturing Assistance Program. The bill also disallows HTDC grants to businesses that were awarded a competitive contract from the Department of Defense to research hydrodynamics and demand response and makes an appropriation into, and out of, the Alternative Energy Research and Development Revolving Fund for the purpose of providing grants.

Nalu Scientific was founded in 2015 to commercialize high speed integrated circuits for US Department of Energy and its national labs. Since then we have been receiving steady support from the DOE SBIR program which has allowed us to grow to 7 full time employees. We have plans to even grow further and provide support to DOE and the national labs in their mission.

Being in Manoa, and having access to a subsidized facility, has been extremely helpful in our growth. Additionally, we have immensely benefited from various HTDC's programs. We have also benefited from the matching funds grant program administered through the Hawaii SBIR program of HTDC. Given high cost of doing business in Hawaii and the high risk- high reward nature of our innovation, these matching funds have been essential in helping us finish Phase I projects in time and bring in Phase II follow-on funding.

According to HTDC for every dollar invested through this program, Hawaii companies have attracted 20 federal dollars in return to the state, plus commercialization funding. The Hawaii SBIR program supports projects with vetted technology backed with federal funds. The state matching funds are critical to winning later phase awards and getting some of the technologies to market. We respectfully request correction of the defective effective date. Thank you for the opportunity to offer these comments.

Thank you for the opportunity to offer these comments.

Isar Mostafanezhad, Ph.D.

Founder and CEO at Nalu Scientific, LLC



Chamber of Commerce HAWAII

The Voice of Business

**Testimony to the Senate Committees on Energy, Economic Development, and
Tourism and Technology
Friday, March 15, 2019 at 3:30 P.M.
Conference Room 414, State Capitol**

RE: HB 340 HD1 RELATING TO THE HAWAII TECHNOLOGY DEVELOPMENT CORPORATION

Chairs Wakai and Keohokalole, Vice Chairs Taniguchi and English, and Members of the Committee:

The Chamber of Commerce Hawaii ("The Chamber") **supports** HB 340 HD1, which appropriates funds to the High Technology Development Corporation (HTDC) for the Small Business Innovation Research Program (SBIR) and the Manufacturing Assistance Program (MAP). Additionally, this bill would also make appropriations into and out of, the Alternative Energy Research and Development Revolving Fund for the purpose of providing grants.

The Chamber is Hawaii's leading statewide business advocacy organization, representing about 2,000+ businesses. Approximately 80% of our members are small businesses with less than 20 employees. As the "Voice of Business" in Hawaii, the organization works on behalf of members and the entire business community to improve the state's economic climate and to foster positive action on issues of common concern.

HTDC has offered assistance to SBIR awarded companies since 1989; as a result, Hawaii companies have attracted 20 federal dollars in return to the state plus commercialization funding for every dollar invested through this program. Although the federal SBIR grant program has increased efforts to move companies through grant awards to commercial product sales, funds have not been dedicated towards these efforts. This bill would allow HTDC to continue to provide the necessary support of a commercialization assistance program to all phases in the program.

Continuing to support MAP is also vital to HTDC's mission. This program has become a positive resource to aid companies with their investments for manufacturing equipment, training of their employees on newly purchased equipment, energy efficiency, and feasibility studies. We believe that the continuation of this program will help fuel manufacturing in Hawaii to grow and provide more products for both local consumption and export, and this amendment will help companies in Hawaii to start or grow their operations.

HTDC and its programs actively support and advocate for the specific needs of Hawaii's technology and manufacturing businesses. We have seen a rising demand from local companies wanting to manufacture here in Hawaii in order to maintain quality control, as well as an



increasing desire for 'Made in Hawaii' products from consumers globally, which will continue to economically benefit our state. HTDC and its programs are integral to the growth and success of these companies who seek information and guidance on what it takes to succeed in Hawaii.

Thank you for the opportunity to testify.

HAWAII FISH COMPANY

Established 1978

P. O. Box 740
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Cellular: 808-429-3147, 429-3187
E-mail: hawaiiifish@gmail.com

City Bank TIGR Award 2000- Aquaculture
U.S. SBA Tibbetts Award/
SBIR Hall of Fame 2000
Certificate of Congressional Recognition

Hawaii Fish Company (HFC), a small, family-owned, multigenerational North Shore aquaculture farm, testifies in strong support of HB 340 HD1 which would appropriate funds for the continuation of the Hawaii Small Business Innovation Research (HSBIR) matching grant program and the Manufacturing Enterprise Program (MEP) administered by the High Technology Development Corporation (HTDC).

HFC has received six USDA/SBIR Phase I feasibility grants to date totaling \$452 thousand, with one currently in progress. These research efforts have been enhanced by six HSBIR Phase I matching grant awards totaling \$125 thousand. HFC has converted these Phase I awards into four follow-on USDA/SBIR Phase II research & development grants totaling more than \$1.4 million, with a fifth Phase II award anticipated in 2020.

HFC's two most recent USDA/SBIR Phase II awards were enhanced by two Hawaii SBIR Phase II matching grant awards totaling \$286 thousand to help support our farm's ambitious research and development efforts to expand our sustainable seafood production, product development, and sales, to develop our production related renewable energy-based aquaculture technologies, to protect our intellectual property, to retain our existing employees, and to support our carefully planned Phase III commercialization efforts. Phase III commercialization is anticipated for both projects, and these efforts would benefit from and be enhanced by a Phase III matching grant opportunity.

The Federal SBIR program is increasingly known in the innovation technology and investment sectors as "America's Seed Fund". Similarly, the HSBIR matching grant program is well known to the Federal agencies, with the additional support provided to Hawaii awardees helping to enhance the quality of awardees research efforts and the opportunity for commercialization success by which Congress evaluates the Federal program. This can only help Hawaii's applicants in the Federal review process.

The HSBIR program's competitive written application, 5-minute pitch, and third-party review employed by HTDC in their award process ensures that the States' investment in innovation awards is well targeted, and the carefully selected contract milestones tied to the award payment schedule ensures project performance.

In summary, this is a very strong and beneficial State program supporting nationally-vetted local innovators across multiple economic sectors that is worthy of continued legislative support.

Thank you for the opportunity to testify in strong support of HB 340 HD1.

Ronald P. Weidenbach
Co-Owner & President

Kauai Beer Company

James Guerber

4265 Rice Street

Lihue, HI 96766

98080 639 7821

jim@kauaibeer.com



House Committee on Energy, Economic Development & Tourism And House Committee on Technology

Friday, March 15, 2019, 3:30 p.m. State Capitol, Conference Room 414

Position: **Support**

HB340, HD1

RELATING TO THE HAWAII TECHNOLOGY DEVELOPMENT CORPORATION

Chair Keohokalole, and Members of the Committee on Technology, and Chair Wakai and Members of the Committee on Energy, Economic Development, and Tourism.

Kauai Beer Company supports HB340 HD1 that appropriates funds to the Hawaii Technology Development Corporation for the Small Business Innovation Research program and Manufacturing Assistance Program. The bill also disallows HTDC grants to businesses that were awarded a competitive contract from the Department of Defense to research hydrodynamics and demand response and makes an appropriation into, and out of, the Alternative Energy Research and Development Revolving Fund for the purpose of providing grants.

Thank you for the opportunity to offer these comments.

Sincerely,

Jim Guerber
President
Kauai Beer Company

HB-340-HD-1

Submitted on: 3/15/2019 6:59:13 AM

Testimony for EET on 3/15/2019 3:30:00 PM



Submitted By	Organization	Testifier Position	Present at Hearing
Ann Chung	Individual	Support	Yes

Comments:

I STRONGLY SUPPORT HB340 relating to the Hawaii Technology Development Corporation which appropriates funds to HTDC for three very successful existing programs: Small Business Innovation Research (SBIR), Manufacturing, and Alternative Energy grants. These are very successful existing program that has been working for many years. I urge you to continue funding these very important programs. Based on data provided by HTDC, 20 federal dollars are returned to the State for every dollar invested through the SBIR program alone. These existing grant programs are successful in promoting innovation and stimulating economic development by supporting emerging technologies developed by Hawaii companies and creating innovation jobs – high-skilled, high-paying jobs that Hawaii needs. I URGE YOU TO PASS THIS BILL.