

HB-1958

Submitted on: 1/24/2018 8:40:51 AM

Testimony for EDB on 1/26/2018 10:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
John Porter		Support	No

Comments:

The funds are very valuable in developing new technology. In our case we are developing a system to measure waves and dangerous coastal currents. This system is of interest to public health and coastal engineering experts. Our initial design was working but still had flaws. The state funds are allowing us to redesigned the system and we expect to releasing it by the end of 2018.



2800 Woodlawn Dr.
STE #150
Honolulu HI 96028
www.spectrum-photonics.com

24 January 2018

Statement of
Edward Knobbe
President and CEO
Spectrum Photonics

In consideration of

HB1958
RELATING TO THE HIGH TECHNOLOGY DEVELOPMENT CORPORATION.

Spectrum Photonics **supports** an appropriation to HTDC to continue providing financial stimulus to businesses with a federal small business innovation research (SBIR) contracts having successfully reached phase II or III award status.

The SBIR Program is highly competitive; Hawaii-based businesses that are successful in receiving phase II and III SBIR awards have distinguished themselves as technology innovators at the national and international level. Implementation of a state-sponsored incentive program, designed to augment all three phases of the federal SBIR program, will significantly accelerate the rate at which Hawaii small businesses can develop and commercialize new technologies.

Spectrum's support for appropriation to HTDC notwithstanding, I respectfully submit that **the proposed change from matching grant funds to convertible loan will substantially reduce the stimulative benefit of the proposed initiative** as compared to the former grant program. Based on my experience as a small business founder and owner, it is my opinion that convertible loans are only of value to small business under very select conditions and are not generally beneficial to the long-term growth of a typical, financially sound small business.

Spectrum Photonics has in benefitted significantly from the SBIR program, with approximately \$8,000,000 in federal SBIR funds contracted since 2010. Federally-awarded SBIR funds, in turn, have made our technologies competitive for larger follow-on commercial transition programs and federal acquisition contracts, including awards under the \$3,000,000 Rapid Innovation Fund (RIF) program, \$4,500,000 of funding under the Next-Generation Chemical Detection (NGCD) program, \$3,600,000 under the Surface Contamination Detection (SCD) Stryker NBCRV sensor upgrade program, and \$16,900,000 under the Standoff ILLuminator for Measuring Absorbance and Reflectance Infrared Light Signatures (SILMARILS) program. Continuation and expansion of an HTDC-administered state-funded matching grant program will greatly accelerate technology development and commercialization activities in the state.

Thank you or the opportunity to offer these comments. Please do not hesitate to contact me if you have follow-up questions.



Written Statement of
Robbie Melton
Executive Director & CEO
Hawaii Technology Development Corporation
before the
House Committee on Economic Development & Business
Friday, January 26, 2018
10:00 a.m.
State Capitol, Conference Room 309

In consideration of
HB1958
RELATING TO THE HAWAII TECHNOLOGY DEVELOPMENT CORPORATION

Chair Evans, Vice Chair Keohokalole, and Members of the Committee on Economic Development & Business.

The Hawaii Technology Development Corporation (HTDC) **offers comments** on HB1958 that authorizes HTDC to issue Hawaii Small Business Innovation Research (SBIR) phase II and III awards in the form of convertible note loans and appropriates funds for the Hawaii SBIR program.

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.

The convertible note loan is a proven effective financing structure to move technologies further along the commercialization pathway, increase the company's valuation, and lead to follow-on investment for further growth while providing the state opportunity to financially benefit from the success of the company and recoup some capital to sustain the program.

The bill offers HTDC the option of implementing the convertible note. However, HTDC currently only has funding to make a few awards a year. Every year, there have been more qualified applicants than available funds. Last year, with \$900,000 available, only 5 of 9 companies were funded. Since 2016, 20 of 29 projects were awarded, none receiving the full eligible amount. Over time, the current phase II and III program is anticipated to generate the same type of metrics of success as the Phase I only matching program. For every dollar invested through the Hawaii SBIR program, Hawaii companies have attracted 20 federal dollars in return to the state, plus commercialization funding. HTDC believes the existing grant program provides leverage and positive economic development value for the State by supporting projects with vetted technology and backed with federal funds.

Implementing a convertible note option for the Hawaii SBIR program would require additional funding, preferably through a separate appropriation. HTDC currently evaluates each phase II or III application on its economic potential impact for the state and only awards grants to well qualified applicants. Trying to determine which awards should be convertible notes versus grants would be challenging.

Under the current phase II and III program started in FY16, of the 29 applicants, 20 were awarded a total of \$4.8 million. The awardees had secured \$19.7 million of federal SBIR funding.

Provided adequate funding, we support this initiative as long as it does not replace our priorities requested in the Executive Budget. Thank you for the opportunity to offer these comments.

HB-1958

Submitted on: 1/24/2018 11:55:41 PM

Testimony for EDB on 1/26/2018 10:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Melodie Aduja	OCC Legislative Priorities	Support	No

Comments:

**PRESENTATION OF THE
OAHU COUNTY COMMITTEE ON LEGISLATIVE PRIORITIES
DEMOCRATIC PARTY OF HAWAII
TO THE COMMITTEE OF ECONOMIC DEVELOPMENT & BUSINESS
HOUSE OF REPRESENTATIVES
TWENTY-NINTH LEGISLATURE
REGULAR SESSION OF 2018
Friday, January 26, 2018
10:00 a.m.
Hawaii State Capitol, Conference Room 309**

RE: Testimony in Support of HB 1958, RELATING TO THE HAWAII TECHNOLOGY DEVELOPMENT CORPORATION

To the Honorable Cindy Evans, Chair; the Honorable Jarrett Keohokalole, Vice-Chair and Members of the Committee on Economic Development and Business:

Good morning, my name is Melodie Aduja. I serve as Chair of the Oahu County Committee ("OCC") Legislative Priorities Committee of the Democratic Party of Hawaii. Thank you for the opportunity to provide written testimony on House Bill No. 1958, relating to the Hawaii Technology Development Corporation. The OCC Legislative Priorities Committee is in favor of House Bill No. 1958 and support its passage.

House Bill No. 1958 is in accord with the Platform of the Democratic Party of Hawai'i ("DPH"), 2016, as it promotes the Hawaii Technology Development Corporation, small businesses and innovation. DPH "recognizes that the responsible use and development of technology in all its manifestations offer immense potential for our community, government, including institutions of higher education and business sectors. DPH encourages synergistic research, development, commercialization and educational programs that promote technological proficiency and innovation. DPH supports Science, Technology, Engineering and Math (STEM) initiatives in our public, private and charter schools as these prepare the next generation to address the needs of our state. DPH also support[s] programs that facilitate incubator, i.e., start-up opportunities for new and promising technologies and encourages the local retention of our intellectual resources." (DPH Platform, Lines 148-156 (2016)).

Given that House Bill No. 1958 authorizes HTDC to issue phase II and III awards in the form of convertible note loans which encourages Hawaii small business innovation research programs of the Hawaii technology development corporation, increases the competitiveness of small businesses in Hawaii, attracts additional federal dollars into the State, and helps Hawaii businesses to transform their research into innovative commercial products and services, it is the position of the OCC Legislative Committee to support this measure.

Thank you very much for your kind consideration.

Sincerely yours,

/s/ **Melodie Aduja**

Melodie Aduja, Chair, OCC Legislative Priorities Committee

Email: legislativepriorities@gmail.com, Tel.: (808) 258-8889

HB-1958

Submitted on: 1/25/2018 7:42:53 AM

Testimony for EDB on 1/26/2018 10:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Michael Reiley	HNu Photonics	Support	No

Comments:

Written testimony on HB1958

Submitted by: Michael Reiley, Ph.D., President HNu Photonics

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 less than 15%. Phase II and Phase III awards are even more competitive.

These awards are 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 develop and commercialize their innovative technologies.

The Hawaii SBIR matching grant program is crucial for leveling the playing field to enable Hawaii companies such as mine, who have been successful in winning SBIR awards. A convertible note program would be significantly less helpful than the existing grant program; however, any help to make Hawaii small businesses more competitive at a national level is greatly appreciated.

For my company, SBIR projects and matching Phase I and Phase II grants have directly resulted in our ability to hire additional qualified staff. This month alone, we hired two full-time staff, who previously interned with us and recently graduated from University of Hawaii, Maui College. 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 for your steadfast support of the SBIR matching grant program for all phases of SBIR development.



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Telephone: (808) 587-3830

Statement of
Karl K. Fooks
President

Hawaii Strategic Development Corporation

Before the
HOUSE COMMITTEE ON ECONOMIC DEVELOPMENT & BUSINESS

Friday, January 26, 2018
10:00 AM
State Capitol, Conference Room 309

In support of

HB 1958
RELATING TO THE HAWAII TECHNOLOGY DEVELOPMENT CORPORATION

Chair Evans, Vice Chair Keohokalole and Members of the Committee on Economic Development and Business:

The Hawaii Strategic Development Corporation (HSDC) **supports** HB 1958, which authorizes HTDC to issue Phase II and Phase III matching Hawaii SBIR awards in the form of convertible note loans.

HSDC defers to HTDC on the specifics relating to this measure.

If this measure is adopted, HSDC recommends that appropriate programs are implemented to provide access to follow-on investment to recipients of these awards as the convertible note loans will have the highest probability of being repaid if the recipients of these awards can access appropriate follow-on financing to grow and scale their businesses.

HSDC supports the bill as long as it does not either replace or adversely impact the Administration's priorities. We defer to the Department of Budget and Finance for the fiscal impact of this measure on the state budget.

Thank you for the opportunity to provide testimony.



HAWAII BIOTECH

Statement of
D. Elliot Parks, Ph.D.
President & CEO
Hawaii Biotech Inc.
before the
Committee on Ways and Means
Friday, January 26, 2018
10:00 a.m.
State Capitol, Conference Room 309

In consideration of
HB1958
RELATING TO THE HIGH TECHNOLOGY DEVELOPMENT CORPORATION.

Chair Evans, Vice Chair Keohokalole, and Members of the Committee on Economic Development and Business.

Hawaii Biotech Inc. **supports** HB1958 that makes an appropriation for the continuation of the small company innovation grant program within the High Technology Development Corporation.

Hawaii Biotech is the oldest and largest biotech company in the State of Hawaii, founded by four UH professors in 1982. Our company is a World's leader in developing safe and effective vaccines to protect against emerging and re-emerging infectious diseases. As many of these diseases derive from tropical regions of the World, our Hawaii company has a significant competitive advantage. Another competitive advantage that Hawaii Biotech has is the fact that we do not use infectious viruses in the formulation of our protective vaccines. Additionally, we lead the World in developing small molecule drugs to combat bioterrorism threats like Anthrax and Botulinum toxins.

We applaud the Hawaii State Legislature for its leadership through the long-standing small business innovation research matching grant program and urge the Legislature to continue this program as articulated in HB 1958. Funds from this HTDC matching grant program have allowed Hawaii Biotech to attract more than \$60 million in Federal grants and contracts to the State of Hawaii, to our local company, to maintain our current workforce, and to recruit new employees to expand our workforce.

We believe HTDC has been a prudent and judicious steward of the State funds that have been awarded to the innovation technology matching grant program in past years. Therefore, we would hope that the Legislature sees fit to provide flexibility to HTDC in the award of future awards, whether in the form of matching grants or convertible note loans.

As the CEO of a potential awardee company, we would welcome HSTC and the State of Hawaii as shareholders and find the convertible loan note alternative intriguing. However, valuing emerging companies is an art, not a science. Therefore, as a serial entrepreneur, a venture capital investor, and an angel investor, I am concerned about the administrative burden that establishing fair and equitable terms for convertible notes for multiple awardees may place upon the HTDC.

Thank you for the opportunity to offer these comments.



To: Hawaii State House Committee
From: Alex Cabello, Chief Technology Officer, AlgorithmHub Inc.

Re: HB1958 RELATING TO THE HAWAII TECHNOLOGY DEVELOPMENT CORPORATION

In Support

AlgorithmHub Inc., a Hawaii based startup, supports HB1958 Relating to the Hawaii Technology Development Corporation.

We believe HB1958 is instrumental in helping high-tech companies grow and expand operations in Hawaii. Grants such as the Hawaii SBIR/STTR matching grant allow local companies to continue development of commercial technology and generate high paying STEM jobs.

AlgorithmHub Inc., in collaboration with the University of Hawaii Cancer, has been awarded an NIH STTR Phase I grant in August of 2017 focusing on improving the effectiveness of immunotherapy. Immunotherapy is a relatively new cancer treatment which trains a person's immune system to fight cancer. Immunotherapy is very effective when it works, but not everyone responds to it. AlgorithmHub and the University of Hawaii Cancer Center are developing software which analyzes data from tumor samples to predict the effectiveness of immunotherapy in new cancer patients. Through this analysis, we save lives by allowing patients to receive the best treatment and incentivizes insurance companies to cover the cost.

AlgorithmHub Inc. will be submitting an application for an NIH STTR Phase II grant in April 2018. If awarded, the Hawaii SBIR/STTR matching grant will help significantly to commercialize this revolutionary technology. Through successful commercialization, we project to create 40 new high paying jobs in the field of computer science, data science, and biology within 5 years. Furthermore, the technology will be instrumental in the fight against cancer.

Thank you for the opportunity to submit testimony.

Alex Cabello
CTO, AlgorithmHub Inc.



Chamber of Commerce HAWAII
The Voice of Business

**Testimony to the House Committee on Economic Development & Business
Friday, January 26, 2018 at 10:00 A.M.
Conference Room 309, State Capitol**

**RE: HOUSE BILL 1958 RELATING TO THE HAWAII TECHNOLOGY
DEVELOPMENT CORPORATION**

Chair Evans, Vice Chair Keohokalole, and Members of the Committee:

The Chamber of Commerce Hawaii ("The Chamber") **supports the intent** of HB 1958, which authorizes the Hawaii Technology Development Corporation (HTDC) to issue Small Business Innovation Research program (SBIR) Phase II and III awards in the form of convertible note loans and appropriates funds for the SBIR program in Hawaii.

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.

Based on data provided by HTDC, 20 federal dollars are returned to the State for every dollar invested through the SBIR program. The existing grant program is successful in promoting innovation and stimulating economic development by supporting emerging technologies developed by Hawaii companies and creating innovation jobs.

This bill offers HTDC the option of awarding a convertible note loan rather than a grant. Not knowing what impact this may have on the future of Phase II and III awards and the Hawaii SBIR program, the Chamber is reluctant to provide its full support at this time, however, we appreciate the State's continued investment in this endeavor.

Thank you for the opportunity to testify.



Nalu Scientific
Data Acquisition Systems

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Phone: +1 (888) 717-6484
info@naluscientific.com

Jan 25, 2018

Re: Comments on HR1958

Dear members of the committee,

Nalu Scientific, LLC is a small business active in innovative research and development and under contract with US Department of Energy's SBIR program. We have recently benefited from the HSBIR's matching funds program which has helped us bring follow on Federal funding and grow our technical staff. We sincerely hope that the matching funds program continues .

The following is our comments regarding HR1958 for your consideration:

1. This is an innovative idea and possibly first of its kind in the nation and can have a big impact on future of innovation funding in the state.
2. Such convertible note program can show seriousness of a startup in attracting follow on private capital.
3. This bill can be beneficial for companies that seek follow on private investment, or companies that are at a stage in their product development to seek such funding.
4. Many startups active in hard technology development require multiple rounds of SBIR funding to perfect their product and become investor ready.
5. Implementation of a convertible note program might require a great deal of administrative burden for both parties, which might be outside the bandwidth of a small technology startup. Additionally, if not properly implemented can impede the company from raising follow on rounds.
6. The bill will be very beneficial if it is an added component to the existing matching funds grant program.

Please do not hesitate to contact me if you have any question.

Regards,

Isar Mostafanezhad,
Founder and CEO at Nalu Scientific, LLC

HB-1958

Submitted on: 1/25/2018 12:41:06 PM

Testimony for EDB on 1/26/2018 10:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Soojin Jun	Jun Innovations Inc	Oppose	No

Comments:

1. Last year when we applied for HSBIR Matching Fund for Phase 2 & 3 awards, the program clearly stated that the HSBIR would provide up to 50% match 'grant' for companies receiving SBIR awards, not 'convertible note loan'. This bill is intended to change the award form after all the awardees were selected.

2. Main emphasis for grant is to cover labor costs, local manufacturing, and R&D, which creates jobs in Hawaii. Grant would help us to offer comparable salaries to keep talented young local brains in Hawaii and State (or UH)-owned technologies.

3. Our company already received a similar typed convertible note loan from the outsider and accelerator program, which means we will be more indebted and more liable to pay back (even without any revenue generation in near future) once the bill is passed. Please note that our fragile startups are to struggle with this additional liability and our crispy R&D concentration will be seriously challenged due to likely cash shortage (won't exist if the current award form is exercised as stated before) and uncertain equity dilution.



LATE

25 January 2018

To : House Committee on Economic Development and Business

R.e. HB 1958

To be heard on Friday, January 26th, 2018, 10:00 a.m.

At State Capitol, Conference Room 309

Dear Chair Rep. Evans, Vice Chair Rep. Keohokalole, and Members of the House Committee on Economic Development and Business,

I write in **strong opposition to some elements** of HB 1958, RELATING TO THE HIGH TECHNOLOGY DEVELOPMENT CORPORATION, which authorizes HTDC to issue Phase II and III awards in the form of convertible note loans.

We are **highly supportive of the HTDC Phase II and Phase III awards**, which we believe are critical to the development of innovative small businesses in Hawaii, and which aid the transition from high-risk research to commercialization. Our company is an exemplar of how these funds can aid in this transition (see below).

However, we are **strongly opposed to these awards being made as convertible note loans**, for three primary reasons:

1. The terms of any convertible note loan are going to be complex, and the process of negotiating these terms will be complicated. It will invariably require approval of the Attorney General. This will further slow the HTDC approval process for Phase II and III awards, and – as timing is often critical in such matters – significantly reduce their impact.
2. A convertible note owed to the State government will be a considerable disincentive to any investor who might otherwise consider seed or Series A funding in a small business



in Hawaii. In the mind of most angel or early-stage investment partners, governments generally do not make good equity partners.

3. A convertible note will restrict the ability of the small business to re-organize or re-position itself, or form new strategic alliances. Flexibility is an essential element of start-up businesses, and the constraints of a convertible note held by the State government would be too restrictive.

For these reasons, **if our company was offered a convertible note for a Phase II or III award, we would be compelled to decline.** We would posit that most other companies would do likewise, and - rather than “help to maximize the efficiency of the appropriated funds” - this proposed legislation would render the Phase II and III award program much less effective.

Phase II and III awards can be phenomenally impactful. Consider our experience with the Velella Project, which was awarded one of **TIME Magazine’s “25 Best Inventions of the Year”** for 2012.

The Velella Project was funded by the National Science Foundation’s SBIR program. Our Phase I and Phase II research work laid the ground-work for understanding the opportunity, but did not identify a ready path to commercialization. By the end of the Phase II project, we were still a long way from having a viable business plan. By good fortune, one of our collaborating partners – the Illinois Soybean Association – had provided a significant matching contribution to our Phase II research to allow us to obtain a **further \$500,000 in Phase IIB funds from NSF**. This follow-on funding meant we could go back out offshore, and deploy and operate a modified version of the original concept, which could then more clearly demonstrate the social, ecological and commercial benefits of the project. Out of that Phase IIB work grew a new Lockheed-Martin spin-off company that now operates independently out of NELHA, with Kona-based employees totaling three engineers, a PhD biologist, one other technician (who is a UH Hilo graduate), and one other supporting employee.

The Velella Project technologies developed through these matching funds also underpin the commercial expansions that we are pursuing in Florida, Mexico and Honduras. Our Mexico project recently closed a Series A round. This operation will provide a commercial platform for application of additional technologies that we are developing in Kona in new feeds, new mooring and net pen systems and selective breeding. These technologies are also applicable to the Kona-based kampachi farm, and other future offshore farms in Hawaii and the Pacific Islands.



Without the Phase II matching support of Illinois soybean farmers, the NELHA-based Lockheed spin-off company, and our own ongoing research program at NELHA would all have wilted on the vine. As a Hawaii company, we cannot always rely on friends from Illinois; such critical support for Phase II and Phase III match needs to be also available locally, but without the complexities of a convertible note.

We would, however, like to applaud one proposed amendment to the governing language for Phase II and III awards. In past iterations of this program, HTDC Phase III match awards have only been available for companies that had Phase III funding from **government** sources (i.e. DoD, or NIH). These HTDC awards were therefore not made available to companies that had **private** sources of Phase III matching funds. This is completely wrong-headed! HTDC should be charged with offering **greater** support for private investors in SBIR technologies, not **less**. We therefore were very pleased to see in 4.(b) of the draft legislation that the clause now reads “phase II or III award or contract **from any participating federal agency**” (my emphasis added). This change is greatly appreciated.

Thank you for the opportunity to offer these comments.

Mahalo, and aloha,

A handwritten signature in black ink, appearing to read 'Neil Anthony Sims'.

Neil Anthony Sims, M.Sc.
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President, The Ocean Stewards Institute
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