

HB2282 HD1

Amends section 206M-15, Hawaii Revised Statutes, to add Phase II or III Small Business Innovation Research grants to qualifying criteria. Increases the ceiling on transfers from the Hawaii Capital Loan Revolving Fund from \$100,000 to an unspecified amount. Effective January 20, 2050. (HB2282 HD1)

Written Statement of
ROBBIE MELTON
Executive Director & CEO
High Technology Development Corporation
before the
**SENATE COMMITTEES ON ECONOMIC DEVELOPMENT, GOVERNMENT
OPERATIONS AND HOUSING
AND
TECHNOLOGY AND THE ARTS**
Monday, March 17, 2014
2:45 p.m.
State Capitol, Conference Room 16
In consideration of

HB 2282 HD1 RELATING TO HIGH TECHNOLOGY.

Chairs Dela Cruz and Wakai, Vice Chairs Slom and Nishihara, and Members of the Committees on Economic Development, Government Operations and Housing and Technology and the Arts.

The High Technology Development Corporation (HTDC) **supports** HB 2282 HD1 relating to High Technology. HTDC has been assisting Phase I SBIR awarded companies since 1989 and continues to do so each year. For every dollar invested through this program, Hawaii companies have attracted 16 federal dollars in return to the state, plus commercialization funding. The federal SBIR grant program has increased their efforts to move companies through grant awards to commercial product sales. However, the federal SBIR program has not dedicated additional funds towards these efforts. HB 2282 HD1 allows HTDC the opportunity to further assist these companies in the SBIR path to commercialization. For clarification, the Hawaii Capital Revolving Loan fund mentioned in the bill was repealed by section 7 of Act 178, SLH 2003. HTDC respectfully requests the correction of the defective effective date.

Thank you for the opportunity to offer these comments.



Chamber of Commerce HAWAII
The Voice of Business

**Testimony to the Senate Committee on Economic Development, Government
Operations and Housing and Committee on Technology and the Arts
Monday, March 17, 2014 at 2:45 P.M.
Conference Room 016, State Capitol**

RE: HOUSE BILL 2282 HD1 RELATING TO HIGH TECHNOLOGY

Chairs Dela Cruz and Wakai, Vice Chairs Slom and Nishihara, and Members of the Committees:

The Chamber of Commerce of Hawaii ("The Chamber") **supports** HB 2282 HD1, which amends section 206M-15, Hawaii Revised Statutes, to add Phase II or III Small Business Innovation Research grants to qualifying criteria.

The Chamber is the largest business organization in Hawaii, representing over 1,000 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.

The Chamber supports continuing efforts to develop the innovation sector of our economy. A diversified economy is important to Hawaii's economic long term viability. This bill will help provide much needed funding to a wider spectrum of small businesses as well as create opportunities for investments in a booming and diverse economy.

Thank you for the opportunity to testify.



2800 Woodlawn Dr.
STE #150
Honolulu HI 96028

15 March 2014

Committee on Economic Development, Government Operations and Housing

Chair: Senator Donovan M. Dela Cruz

V Chair: Senator Sam Slom

Committee on Technology and the Arts

Chair: Senator Glenn Wakai

V Chair: Senator Clarence K. Nishihara

Growth of the state's technology sector is an important component of any plan to achieve diversification in Hawaii's economy. The most cost-effective method for stimulating growth in the technology sector is through the founding and maturation of Hawaii-based small businesses. The federal government provides early-stage research and development funds for small businesses through the Small Business Innovation Research ("SBIR") program. Implementation of a state-sponsored matching incentive program, designed to augment all three phases of the federal SBIR program, will significantly accelerate the rate at which small businesses can develop and commercialize new technologies.

The highly competitive SBIR program makes non-dilutive seed funds available to small businesses in a purposefully structured, multi-phase programmatic structure aimed at developing and commercializing early stage innovations. Spectrum Photonics has benefitted significantly from this program, with more than \$5,000,000 in federal SBIR funds contracted since 2009. These SBIR funds, in turn, have helped to make our technologies competitive for follow-on federal acquisition programs and commercial transition opportunities such as the Rapid Innovation Fund (RIF) program. Enactment of HB2282-HD1 will greatly accelerate technology development and commercialization activities in the state.

Phase I SBIR awards are generally only sufficient to conduct a paper study or to conduct a primitive proof-of-concept experiment. Phase II project awards, while more substantial, are typically only sufficient to assemble and conduct limited testing of a first generation brassboard capability. Additional follow-on funding is essential to move the technology beyond the initial prototype towards field demonstrations, customer interface, and beta-stage development. From an economic development perspective, the return on State investment may be maximized through the leveraging of federal Phase II and Phase III SBIR program awards with an incentive matching program aimed at increasing the trained labor base and shortening product development cycle times.

The Hawaii Technology Development Corporation's grant program, which has been in place since 1983, has been used to match SBIR Phase I contracts. It has been effective in helping to secure Phase II awards for grant recipients. HB2282-HD1 will fill critical follow-on funding needs by supplementing all three phases of the federal SBIR program. By adding matching funds to Phase II and Phase III SBIR contracts, HB2282 will significantly enhance the output of the SBIR project deliverables by facilitating critical supporting efforts aimed at maturing and commercial transition of novel technologies. The bill will directly leverage competitively-awarded federal R&D awards, accelerate growth of Hawaii's tech industry, and will help to create new jobs and increased innovation in the State of Hawaii.

We strongly urge you to support of HB2282.

Sincerely,

A handwritten signature in black ink, appearing to read "Edward T. Knobbe".

Edward T. Knobbe, Ph.D.
President and CEO
Spectrum Photonics, Inc.



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

Before the
**SENATE COMMITTEE ON ECONOMIC DEVELOPMENT, GOVERNMENT
OPERATIONS AND HOUSING**

And
COMMITTEE ON TECHNOLOGY AND THE ARTS

March 17, 2014

2:45 p.m.

State Capitol, Conference Room 16

In Support of

HB2282 RELATING TO HIGH TECHNOLOGY

To: Chair Senator Donovan M. Dela Cruz, Vice Chair Senator Sam Slom and
Members of the Committee

Chair Senator Glenn Wakai, Vice Chair Senator Clarence K. Nishihara and
Members of the Committee

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

Re: Testimony in Support of HB2282

Honorable Chairs, Vice-Chairs and Committee Members:

Thank you for the opportunity to submit testimony in support of HB2282

The tech industry in Hawaii has grown over the past 10 years and has made significant strides toward achieving the goal of diversifying Hawaii's economy. Many companies compete for federal support through the Small Business Innovation Research ("SBIR") grant program, which encourages and funds early stage ideas and innovations.

As a local diversified science and engineering company with capabilities/facilities in advanced technology, life sciences, information systems, aerospace and energy Oceanit supports HB2282 and the White Paper attached hereto.

Specifically, we support the objectives of this bill which:

- Acts as a bridge across the "valley of death" and to assist in commercializing research discoveries for societal benefit;
- Supports economic growth and the diversification of our economy;
- Will allow companies to launch new ventures based on technology innovations; and
- Supports the growth of the tech industry and the creation jobs and innovation in the State of Hawaii.

Therefore, we strongly urge you to support HB2282.

WHITE PAPER
High Technology Transfer Bridge
(HTTB)
11/6/13 ver.

Background

The technology industry in Hawaii has grown over the past 10 years and has made strides towards achieving the goal of diversifying Hawaii's economy and in establishing the feasibility and desirability of growing this industry to become the "third pillar" (with tourism and the military) of our economy.

Early stage support has been made available to "start up" companies, through state support of "accelerators". These accelerators provide mentoring and modest financial support to kick start a business.

Other companies that are developing cutting edge technologies rely on federal support through the Small Business Innovation Research ("SBIR") grant program, which encourages and funds early stage ideas and innovations. The technology risk level for these programs are often high and untested. Great ideas emerge from this early stage funding, and these ideas and technologies are vetted and competed at a national level. However, with the level of funding that is provided in a SBIR Phase I grant, there is barely enough money to demonstrate proof-of-concept for a technology. The follow-on funding that is required is essential to move the technology towards prototyping, customer interface and development.

HTTB would fill this critical "gap" in funding by supplementing the SBIR program, a program that has been tested by time. This funding gap (aka known as the "valley of death") is an acute problem in Hawaii due to our immature capital market support. Investment capital for technology in Hawaii faces critical challenges because this industry is still in the early stages of development in Hawaii, and there is a general lack of historical investment into this arena. This creates tremendous hurdles to the evolution of this industry.

Over the last several years, much attention was given to the development of software start-ups and social media as an industry. This has been an attractive industry as it requires little to no start-up capital and has low barriers to entry. Today, the leading tech arenas in the nation have found that the need to support "hard tech" is still required in order to maintain a vital, stable and critical part of the economic infrastructure. This industry is in flux, and most in Silicon Valley would agree that the days of these easy start-ups are gone. The focus is once again on developing cutting edge technology – development that requires longer timeframes, and significantly more capital investment.

Proposed Solution

The proposed solution leverages the Hawaii Technology Development Corporation's (HTDC) grant program, which has been in place since 1983. The purpose of the program has been to match SBIR Phase I grants. Phase I grants cover early stage ideas and technology development. Proposal topics are developed by agencies to address areas of national need. Proposals are vetted nationally and are extremely competitive. Ideally, a successful Phase I project will be able to show "proof of concept". More often than not - this usually means proof on paper – there is not enough funding in these early stage grants to actually develop or test a prototype.

This proposal would broaden the existing program by adding a matching grant component to mid- to later- stage funding at the SBIR Phase 2 or Phase 3 stages to support the development of working prototypes that stem out of these technologies. This would fill a large gap in the technology development process and would promote the maturation and commercialization of novel technologies.

The objectives of HTTB are:

- **To act as a bridge across the “valley of death” and to assist in commercializing research discoveries for societal benefit;**
- **To support economic growth and the diversification of our economy,**
- **To launch new ventures based on technology innovations;**
- **To support the growth of the tech industry and the creation of intellectual property and innovation in the State.**

Testimony in Support of HB2282



To: Senate Committee on Economic Development, Government Operations and Housing;
Committee on Technology and the Arts

Dear Chair Dela Cruz, Vice Chair Slom, Chair Wakai, Vice Chair Nishihara, and Members of the Committee:

This letter is to provide my support for HB2282 regarding increasing the scope of the Hawaii Technology Development Corporation's SBIR matching program to include phase 2 and 3.

TeraSys Technologies has received, to date, almost 40% of our revenue through the Small Business Innovative Research (SBIR) program, totaling \$2.8M over the past 6 years. We have received a total of \$120K through the HTDC SBIR matching grant program. TeraSys has been successful in securing \$2.5M in phase 2 funding, representing a 20X return on investment from the HTDC SBIR matching funds received by TeraSys.

What has proven elusive to us so far, however, is to reach the "holy grail" of the SBIR program which is to secure a phase III large scale commercial order. One of the greatest hurdles in securing a phase 3 contract is the often cited "funding valley of death" which occurs between phase 2 and phase 3. This valley of death is aptly named, since many companies simply "die" attempting to reach phase III because there are very few bona fide sources of funding that can bridge the gap between phase 2 and phase 3.

Typically, the phase 2 results are the first demonstration of a working prototype which provides the customer with the confidence that the research is successful. However, entering into a phase 3 contract requires a working product which is a large step from successful research. Very few funding sources exist for performing the packaging, optimization, and feature development necessary to turn applied scientific research into a fully functional product, hence the phrase funding valley of death. Initiatives such as HB2282 are critical in filling this gap to enable the true commercialization of SBIR funded research.

HB 2282 would broaden the existing program by adding a matching grant component to mid- to later- stage funding at the SBIR Phase 2 or Phase 3 stages to support the development of working prototypes that stem out of these technologies. This would fill a large gap in the technology development process and would promote the maturation and commercialization of novel technologies. In addition, the bill will support of the growth of the tech industry and the creation of jobs and innovation in the State of Hawaii.

We strongly urge you to support of HB2282 and thank you for your time and attention,

Mahalo Nui Loa,

Kevin Miyashiro
President

Digitally signed by Kevin
Miyashiro:AO1096900000132483F4D070000E350
DN: c=US, o=U.S. Government, ou=ECA,
ou=entirety, ou=TERASYS TECHNOLOGIES LLC,
cn=Kevin
Miyashiro:AO1096900000132483F4D070000E350
Date: 2014.03.14 15:02:31 -10'00'