



Written Statement of
Len Higashi
 Executive Director
 Hawaii Technology Development Corporation
 before the
Senate Committee On Energy, Economic Development, And Tourism
 Tuesday, January 31, 2023
 1:00 P.M.
 Conference Room 229 & Videoconference

In consideration of
SB703
RELATING TO THE HAWAII TECHNOLOGY DEVELOPMENT CORPORATION

Chair DeCoite, Vice Chair Wakai, and Members of the Committee.

The Hawai'i Technology Development Corporation (HTDC) **supports** SB703 that appropriates funds to the Hawai'i Technology Development Corporation for the Small Business Innovation Research Program.

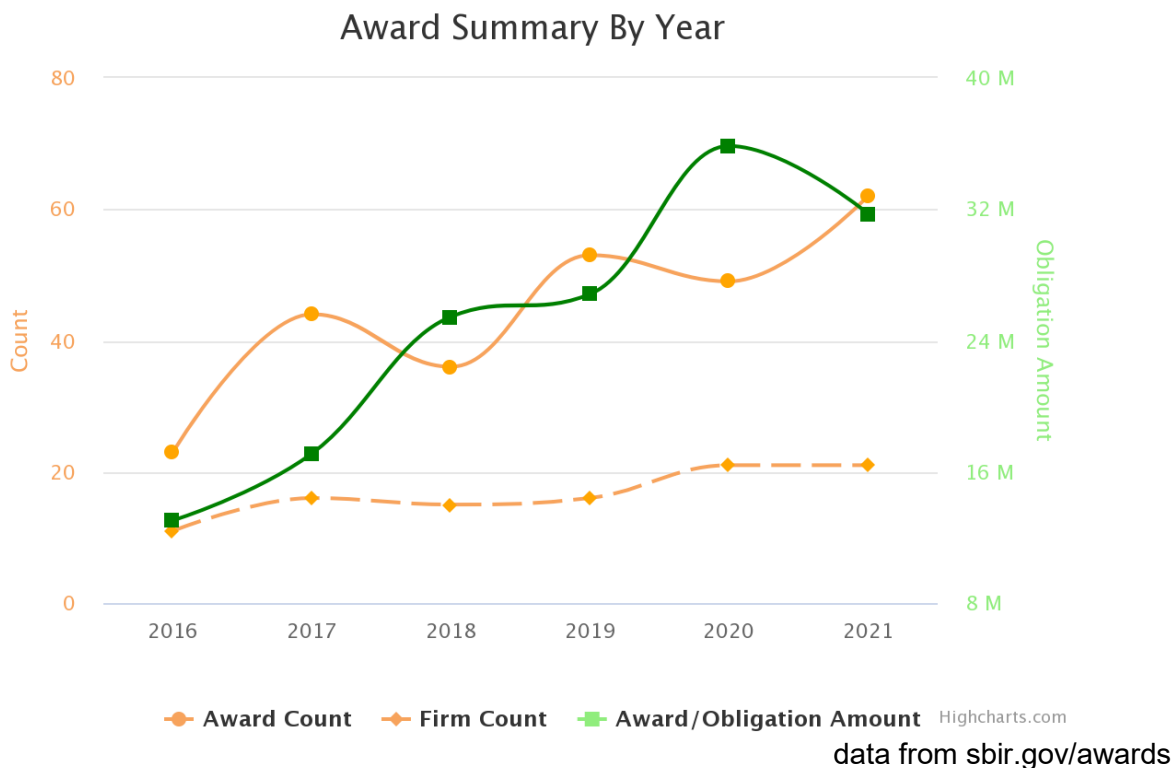
HTDC supports initiatives aimed at growing tech and innovation jobs. The federal Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) program is known as America's seed fund awarding over \$4 billion a year to domestic small businesses to engage in Federal Research/Research and Development (R/R&D) with the potential for commercialization. The Hawai'i Small Business Innovation Research Program (HSBIR) provides matching grants and wrap-around support services to small businesses in Hawai'i who are able to secure these funds and conduct their activities within the State. The companies provide high-wage engineering and science jobs in the State. The goals of the program are to increase the number of participating companies, increase the federal funds awarded, and increase the number of jobs in the State.

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	FY19	FY20	FY21/22	FY22
Appropriation	\$2 MM	\$2 MM	\$1 MM	\$1.5 MM	\$1 MM	-	\$1.5 MM
# of Applications	11	9	9	12	16	-	17
# of Awards	7	8	5	6	14	-	TBD
\$\$ Awarded	\$2 MM	\$1.9 MM	\$900 K	\$1.4 MM	\$900 K	-	TBD
Federal SBIR \$\$ (match)	\$7.9 MM	\$10.9 MM	\$8.0 MM	\$11 MM	\$53 MM	-	\$20 MM
Estimated New Jobs	17	70	15	135	509	-	TBD

Impact:

A chart of the federal SBIR awarded to Hawai'i companies follows.



The federal research dollars awarded to Hawai'i small businesses has been increasing. Hawai'i small businesses are securing funds that would otherwise be awarded to companies in other states because the federal SBIR program has a fixed budget each year and a highly competitive application process. Every year, there have been more qualified applicants for matching HSBIR grants 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.

HTDC is working with the University of Hawai'i Office of Innovation and Commercialization to continue growing the pipeline of companies pursuing SBIR funds and with several Department of Defense (DoD) and DoD related groups on developing further commercialization opportunities for Hawai'i companies developing new technologies. HTDC is also working with the Department of Defense on strategies to accelerate the transition of the Hawaii SBIR technologies into solutions for the government. The program provides great leverage for the state. Thank you for the opportunity to offer these comments.



Chamber of Commerce HAWAII

The Voice of Business

Testimony to the Senate Committee on Energy, Economic Development, and Tourism

**Tuesday, January 31, 2023, at 1:00 P.M.
Conference Room 229 & Videoconference**

RE: SB 703 Relating to the Hawaii Technology Development Corporation

Chair DeCoite, Vice Chair Wakai, and Members of the Committee:

The Chamber of Commerce Hawaii ("The Chamber") **strongly supports** SB 703, which appropriates funds to the Hawaii Technology Development Corporation (HTDC) for the Small Business Innovation Research Program (SBIR).

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.

The Small Business Innovation Research Program (SBIR) is a highly competitive federal program that encourages domestic small businesses to engage in federal research and development that has the potential for commercialization. Through the Hawaii SBIR Program, Hawaii-based companies receive matching funds that can help them to enhance their project development, compete for more lucrative awards and ultimately reach successful commercialization.

The Hawaii Technology Development Corporation has provided assistance to SBIR awarded companies since 1988; as a result, Hawaii companies have attracted federal dollars in return to the state plus commercialization funding for every state dollar invested through this program. The federal SBIR grant program has continued its efforts to move companies through grant awards to commercial product sales, and this bill would allow the Hawaii Technology Development Corporation to continue to provide the necessary support of a commercialization assistance program to all phases in the program for local businesses here in Hawaii.

The Chamber of Commerce Hawaii believes an increase in funding would spur more economic growth for our small businesses and continue the advancement of technology and innovation through an increase in research and development.

Thank you for the opportunity to testify.



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To whom it may concern,

I strongly support bill SB703 and am an avid advocate of HTDC and the work they do. The matching grants of the SBIR program give startup companies like Ai.Fish a huge competitive advantage for a local company like ours to compete on the national and international stage. It's huge.

Being one of the few companies not only in Hawaii, but in the whole world that performs cutting edge Artificial Intelligence development in the marine space, this type of funding is critical for us to attract and keep the necessary talent to perform machine learning and computer vision algorithm development.

Our work in the marine space using computer vision is perfected for us to stay in Hawaii. We have worked with UH, specifically HIMB (Coconut Island), identifying and classifying different corals from drone footage, the Hawaii Longline Association and NOAA identifying and counting fish on longline boats among many other interesting projects in a space in which we have carved out a nice niche.

Please don't hesitate to have anyone from your office contact me with any questions a business owner and multiple entrepreneur might be able to answer for you.

Mahalo,

Jimmy Freese

CEO and Co-Founder, Ai.Fish

jimmy@ai.fish

(808) 262 2666



Testimony Presented to
Committee on Energy, Economic Development, and Tourism
Tuesday, January 31, 2023 1:00pm, Conference Room 229

by
Ron Weidenbach, Co-owner/President, Hawaii Fish Company Inc., Waialua, HI

SUBJECT: Strong support for SB 703 – RELATING TO THE HAWAII TECHNOLOGY DEVELOPMENT CORPORATION

Senator Lynn DeCoite, Chair, Rep. Glenn Wakai, Vice Chair, and Members of the Committee on Energy, Economic Development, and Tourism:

Hawaii Fish Company Inc. (HFC), established in 1978, is Hawaii's oldest commercial fish farm and a federal SBIR awardee and Hawaii SBIR matching grant awardee since 1993. In 2000, HFC was awarded the U.S. Small Business Administration's Tibbitts Award as a national model of excellence for the SBIR program, and a place in the SBIR Hall of Fame, Washington DC. Our continuing SBIR success, with thirteen awards to date, has been made possible by the supplemental research support received from the Hawaii SBIR matching grant program.

HFC therefore strongly supports SB 703 which appropriates funds for fiscal year 2023-2024 for the HTDC's Hawaii SBIR Matching Grant Program. This valuable program supports matching grants of up to 50% of the Federal SBIR Phase II/III awards to a maximum of \$500,000, enabling awardees to cover important research, development, intellectual property (IP) protection, and pre-commercialization expenses that are not covered by the federal awards, placing Hawaii companies in a favorable competitive position nationally.

This very successful program was the first of its kind in the nation and has since been widely copied and expanded upon by other States seeking to attract innovative technology companies and economic development to their respective States. The return on investment to the State of Hawaii in terms of small business start-ups, expansion, diversification, job creation, and economic impact has been impressive, with aquaculture and agriculture companies being an active component of this State success. This program is critical to the continued efforts to diversify Hawaii's economy and to the continued commercialization success and growth of HFC. Thank you for the opportunity to testify in strong support of SB703.

Respectfully,

Ronald P. Weidenbach



29 January 2023

Senate Committee on Energy, Economic Development, and Tourism

Tuesday, January 31, 2023

1:00 PM

State Capitol, Conference Room 229 & Videoconference

In consideration of

SB703

RELATING TO HAWAII TECHNOLOGY DEVELOPMENT CORPORATION

Chair DeCoite, Vice Chair Wakai, and Members of the Committee on Energy, Economic Development, and Tourism.

I write in **strong support of SB703** that appropriates funds to the Hawaii Technology Development Corporation for the Hawaii Small Business Innovation Research Program to fund the matching grant for Phase II and Phase III awards to assist companies in getting their product to market. **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.**

We believe that these awards are critical to the development of innovative small businesses in Hawaii, and aid the transition from high-risk research to commercialization.

Our company is an exemplar of how these funds can aid in this transition. 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 – Forever Oceans

that now operates independently out of NELHA, with Kona-based employees totaling over fifteen engineers and biologists, with the head of biological research a UH Hilo graduate, and his deputy a UH Manoa graduate.

The Velella Project technologies developed through these matching funds also underpin the commercial expansions that we are pursuing offshore of `Ewa Beach, as well as in Florida. 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, then 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.

Thank you for the opportunity to offer these comments, and for your ongoing support of high technology development in Hawai`i.

Mahalo, and aloha,



Neil Anthony Sims, M.Sc.
Founder, CEO, Ocean Era, Inc.



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

Before the
SENATE COMMITTEE ON ENERGY, ECONOMIC DEVELOPMENT and TOURISM

Tuesday, January 31, 2023
1:00 p.m.
State Capitol, Conference Room 229 and Videoconference

Offers Comments to
**SB703 RELATING TO THE HAWAII TECHNOLOGY
DEVELOPMENT CORPORATION**

To: Chair Senator Lynn DeCoite, Vice Chair Senator Glenn Wakai, and Members of the Committee

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

Re: Comments relating to SB703

Honorable Chair, Vice-Chair and Committee Members:

Testimony in Support for SB703

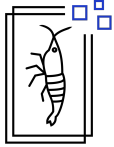
The technology industry in Hawaii has grown over the past 20 years and has made significant strides towards achieving the goal of diversifying and stimulating Hawaii's economy. The continuation of the Small Business Innovation Research ("SBIR") grants is crucial to move the technology towards prototyping, 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.

When the SBIR matching program started a few decades ago, Hawaii was ranked close to the bottom in the US. After this program, Hawaii's success ranking improved to 30th out of 50 States. Accordingly, there is a direct correlation between the State's SBIR Matching Grant Program and improving Hawaii's position in receiving federal SBIR funds. Adding more funds is expected to further improve Hawaii's position and contribute significant research capital into the State of Hawaii, providing a positive ROI, plus supporting the diversification of Hawaii's economy.

Therefore, Oceanit requests to increase the grant to \$5M.



MINNOWTECH

Minnowtech, LLC

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www.minnowtech.com

Statement of
Suzan Shahrestani
CEO

Minnowtech, LLC

before the

Senate Committee on Energy, Economic Development, and Tourism

Tuesday, January 31, 2023

1:00 PM

State Capitol, Conference Room 229 & Videoconference

In consideration of

SB703

RELATING TO HAWAII TECHNOLOGY DEVELOPMENT CORPORATION

Chair DeCoite, Vice Chair Wakai, and Members of the Committee on Energy, Economic Development, and Tourism.

Minnowtech supports SB703 that appropriates funds to the Hawaii Technology Development Corporation for the Hawaii Small Business Innovation Research (HSBIR) Program to fund the matching grant for SBIR Phase II and Phase III awards to assist companies in getting their product to market. 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.

The matching funds provided to Minnowtech allowed us to develop its BRS-1 biomass reader prototype in Hawaii at Kauai Shrimp, a commercial shrimp farmer. So far, we have hired 2 local employees and relocated 3 employees to Hawaii. As we partnered with Kauai Shrimp, they benefited from access to federally funded research to optimize shrimp farming practices and Minnowtech benefited from implementation in a real world environment. Your program is one of the best in the country to support small business development.

Thank you for the opportunity to offer these comments.



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January 31, 2023

HEARING BEFORE THE
SENATE COMMITTEE ON ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM

TESTIMONY ON SB 703
RELATING TO THE HAWAII TECHNOLOGY DEVELOPMENT CORPORATION

Conference Room 229 & Videoconference
1:00 PM

Aloha Chair DeCoite, Vice-Chair Wakai, and Members of the Committees:

I am Brian Miyamoto, Executive Director of the Hawai'i Farm Bureau (HFB). Organized since 1948, the HFB is comprised of 1,800 farm family members statewide and serves as Hawai'i's voice of agriculture to protect, advocate and advance the social, economic, and educational interests of our diverse agricultural community.

The Hawai'i Farm Bureau supports SB 703, which appropriates funds to the High Technology Development Corporation for the Small Business Innovation Research Program.

A major impediment to agriculture in Hawaii is the lack of technology. Many of our agribusinesses continue to operate as they did during their parents' generation despite advancements in technology. A good example is Food Safety for farmers. The majority of Hawaii's farms are small and have difficulty with the requirements and costs associated with food safety requirements.. Food Safety requires recordkeeping and traceability. Due to the size of our farms, traceability recordkeeping is a major issue. We know RFID technology is advanced and used in all places. For example, when you return your car rental, the agent scans the barcode to get your data. It seems these technologies could be adapted to our farms. We need entrepreneurs such as those in the SBIR program to help us address these issues.

Continued funding, with possible targets for agriculture, will be of great assistance to the industry. Agriculture technology includes sophisticated technologies such as robots, temperature and moisture sensors, aerial images, and GPS technology. These advanced devices and precision agriculture and robotic systems allow agribusinesses to be more profitable, efficient, safer, and more environmentally friendly.

Thank you for the opportunity to provide our support on this measure and for your continued support of Hawai'i's farmers and ranchers.



Early Charm Ventures LLC
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Statement of

Ken Malone

Executive Officer

Early Charm Ventures

before the

Senate Committee on Energy, Economic Development, and Tourism

Tuesday, January 31, 2023

1:00 PM

State Capitol, Conference Room 229 & Videoconference

In consideration of

SB703

RELATING TO HAWAII TECHNOLOGY DEVELOPMENT CORPORATION

Chair DeCoite, Vice Chair Wakai, and Members of the Committee on Energy, Economic Development, and Tourism.

Early Charm supports SB703 that appropriates funds to the Hawaii Technology Development Corporation for the Hawaii Small Business Innovation Research Program (HSBIR).

Early Charm creates, owns and operates ventures that convert intellectual property (IP) licensed from universities and government labs into tangible products that we manufacture and market. Founded in Baltimore, the Charm City, we have created 41 ventures from university and government IP licenses.

HSBIR attracted our attention several years ago. Its existence made us take a close look at Hawaii's academic research leadership in marine sciences and strong performance in sustainable technologies, strategically crucial areas for us. We were very impressed by the existing and potential IP at Hawaii's institutions. We have since located two of our ventures in Hawaii and have established long term plans to expand by several companies each year by licensing IP from Hawaii institutions.

HSBIR is an incredible competitive advantage and I encourage you to expand the program.

Statement of
Ann Chung
Corporate Communications Consultant
PacMar Technologies
before the
Senate Committee on Energy, Economic Development, and Tourism

Tuesday, January 31, 2023
1:00 PM
State Capitol, Conference Room 229 & Videoconference

In consideration of
SB703
RELATING TO HAWAII TECHNOLOGY DEVELOPMENT CORPORATION

Chair DeCoite, Vice Chair Wakai, and Members of the Committee on Energy, Economic Development, and Tourism.

PacMar Technologies **supports** SB703 that appropriates funds to the Hawaii Technology Development Corporation for the Hawaii Small Business Innovation Research (HSBIR) Program to fund the matching grant for SBIR Phase II and Phase III awards to assist companies in getting their product to market. 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.

PacMar Technologies was founded in 1979 with its home office and headquarters in Honolulu, Hawaii. PacMar Technologies' research team has world-class expertise in advanced ship hull hydrodynamic research, naval architecture, alternative energy, autonomy and artificial intelligence, and other maritime technologies. PacMar Technologies produces innovation through research—inventing, innovating, developing, building, and testing advanced technologies. A significant amount of research and development funding comes through SBIR Phase II and Phase III awards, which enable transition from design and concept, to modeling and simulation, to prototypes in the hands of end users, which is extremely unique for a company this size. Matching grants are a vital opportunity for us to bridge the gap between different phases of projects, on the path towards commercialized products.

Thank you for the opportunity to offer these comments.

Statement of
David Clements
Director of Vaccine Research
Hawaii Biotech, Inc.
before the
Senate Committee on Energy, Economic Development, and Tourism

Tuesday, January 31, 2023
1:00 PM
State Capitol, Conference Room 229 & Videoconference

In consideration of
SB703
RELATING TO HAWAII TECHNOLOGY DEVELOPMENT CORPORATION

Chair DeCoite, Vice Chair Wakai, and Members of the Committee on Energy, Economic Development, and Tourism.

Hawaii Biotech, Inc. (HBI) **supports** SB703 that appropriates funds to the Hawaii Technology Development Corporation for the Hawaii Small Business Innovation Research (HSBIR) Program to fund the matching grant for SBIR Phase II and Phase III awards to assist companies in getting their product to market. 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.

HBI has been a cornerstone of biotechnology in Hawaii for 40 years. The company is focused on the research and development of vaccines and therapeutics for established and emerging infectious diseases. The company has developed proprietary expertise in the production of recombinant proteins and have established a platform technology applicable to the development of safe and effective vaccines. Current vaccine candidates in clinical or pre-clinical development target the West Nile virus, Tick borne flaviviruses, Chikungunya virus and Coronaviruses. HBI's drug development activities are focused on small molecule drugs that block intracellular and extracellular bacterial toxins. Product opportunities include anti-toxin drugs for the lethal factor from B. anthracis and the botulinum toxin from C. botulinum.

Over the years HBI has been awarded over \$110 million of federal research and development support. In addition, HBI has been awarded matching funds from the Hawaii Small Business Innovation Research (HSBIR) Program for some of our programs. HBI currently has 18 employees and has projected annual revenues of \$7.5 mil. HBI strives to create as many high paying technology positions as possible and it is our mission to expand further and open new positions. The HSBIR program helps the

company to further our research, support our current staff and acquire additional federal funding.

HBI has demonstrated the quality of its vaccine candidates against complex viruses such as Dengue as well as the utility of vaccine technology platform. The dengue vaccine program was acquired by Merck & Co. HBI has also demonstrated a regulatory pathway for its vaccines through successful interactions with the FDA. Through our active West Nile virus vaccine program, HBI has established manufacturing capabilities in the Iwilei facilities. The West Nile vaccine project serves both to demonstrate these capabilities as well as advance the vaccine to human testing. It is important to note that with these efforts being done here in Honolulu, jobs and funds are kept in Hawaii rather than engaging a contract manufacturer on the mainland.

Thank you for the opportunity to offer these comments.

Sincerely,



David Clements



4009 Black Point Rd, Honolulu, HI 96816

LATE

Statement of
Rex Jakobovits, PhD
President,
Experiad Solutions
before the
Senate Committee on Energy, Economic Development, and Tourism

Tuesday, January 31, 2023
1:00 PM
State Capitol, Conference Room 229 & Videoconference

In consideration of
SB703
RELATING TO HAWAII TECHNOLOGY DEVELOPMENT CORPORATION

Chair DeCoite, Vice Chair Wakai, and Members of the Committee on Energy, Economic Development, and Tourism.

Experiad **supports** SB703 that appropriates funds to the Hawaii Technology Development Corporation for the Hawaii Small Business Innovation Research (HSBIR) Program to fund the matching grant for SBIR Phase II and Phase III awards to assist companies in getting their product to market. As a small business owner, I have experienced firsthand the impact that these grants can have on the local economy. By providing state funds to match Small Business Innovative Research grants, we are investing in the growth and development of small businesses in our state. This not only benefits the business owners, but also the employees and local community.

As you know, Small businesses are the backbone of our local economy, providing jobs and driving innovation. By providing these businesses with access to additional funding, we are supporting their ability to grow and expand, leading to increased economic activity and job creation. Furthermore, SBIR grants provide valuable opportunities for small businesses to bring their innovative ideas to market, which can have a positive impact on the local economy by attracting new businesses and industries to our state.

Our story is direct proof that the HTDC SBIR program is critical to attracting high tech startups to Hawaii, and it has brought millions of additional federal dollars to our local economy. My software startup Experiad has received matching funds for our Phase I and Phase II SBIRs, funded by the National Institutes of Health (NIH) to develop software for behavioral therapists who **treat kids with autism**. The funds distributed by HTDC have been critical to our success, allowing us to conduct an extensive field test of our prototype product in the homes of kids with



4009 Black Point Rd, Honolulu, HI 96816

autism. The data we gathered allowed us to win a new fast-track NIH grant proposal last year. We could not have done it without the research funded by the Hawaii matching grant. Thus, **the Hawaii SBIR matching grant was directly responsible for us being awarded \$3.6M in additional federal dollars.** That money is feeding the local high tech economy, and acting as critical seed capital that will generate dozens of high tech jobs in Hawaii if we succeed.

Furthermore, HTDC has served as a critical conduit for bringing Hawaii tech entrepreneurs together, leading to collaboration and team-building that propelled our success. We met our VP of Clinical Product, Emaley McCulloch, when she was building a business within HTDC's manoa site in 2015, and without her, we would not be where we are today. HTDC is a vital hub for Hawaii's technology entrepreneurship, and we are an example of that.

In conclusion, I strongly urge the Senate Committee to consider appropriating state funds to match Small Business Innovative Research grants. This investment in our small businesses will pay dividends for our local economy, creating jobs and driving economic growth. HTDC is exactly the type of investment that our economy needs right now.

Mahalo for listening!

A handwritten signature in black ink that reads "Rex Jakobovits". The signature is fluid and cursive, with a long horizontal flourish extending from the end of the name.

Rex Jakobovits, PhD
President, Experiad Solutions

SB-703

Submitted on: 1/30/2023 10:40:12 AM

Testimony for EET on 1/31/2023 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Charlie Field	Individual	Support	Written Testimony Only

Comments:

I support this bill because it benefits several small businesses in Hawaii and helps keep them competitive in the technology industry.