



HTDC *Cultivating* 
Hawaii's tech sector
HIGH TECHNOLOGY DEVELOPMENT CORPORATION

FY2008 Annual Report

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Duties include, but are not limited to:

- Developing industrial parks as high technology innovation centers and the development of projects within or outside of industrial parks;
- Providing support and services to Hawaii-based high technology companies;
- Collecting and analyzing information on the state of commercial high technology activity in Hawaii;
- Promoting and marketing Hawaii as a site for commercial high technology activity; and
- Providing advice on policy and planning for technology-based economic development.

(Hawaii Revised Statutes, Chapter 206M-2)

message from the board chair



It is my pleasure to present to you the annual report for HTDC on behalf of the board of directors. As our State faces economic challenges, HTDC's mission to diversify the economy by cultivating the technology sector has never been more relevant.

In the past fiscal year, HTDC continued its support of Governor Lingle's innovation initiatives to aid Hawaii in shifting to an innovation-based economy. HTDC, best known for its core competency in managing incubation centers, used those centers to assist each phase of the pipeline that gives birth to innovation. As the State's lead agency for the technology sector, HTDC provided matching awards for winners of the Small Business Innovation Research program. These awards help companies to reach the commercialization stage by obtaining further federal funding. Its importance was recognized by both the administration and the legislature, allowing us to secure an additional \$100,000 for matching awards in the upcoming year. HTDC also assisted companies to secure future workforce by organizing such events as the annual Holiday Science and Tech job fair. This popular job fair was positioned to attract Hawaii expatriates and students who are visiting the state for the holidays, and to encourage them to consider technology jobs in Hawaii. In addition to these many successes, HTDC was able to accommodate a pilot Science, Technology, Engineering and Mathematics (STEM) education program in Maui. Hawaii's first STEM middle school is now housed at HTDC's Maui Research and Technology Center, allowing the students to see the technology companies around them as future employers.

Indeed, as our tech sector matures, HTDC's role is changing. The Milken Institute, in its State Technology and Science Index, ranked Hawaii 28th nationally in tech sector growth this year, up from 39th just four years ago. Locally, we see more grassroots technology networks and associations supporting or participating in the founding of an innovation-based economy. HTDC's commitment to deliver assistance to our tech and innovation companies more effectively through collaboration with other entities is key to fostering continued growth in the tech sector. Despite budgetary concerns that supporting organizations face, HTDC stands strong, having proactively restructured the agency and aligned services to more effectively serve the community.

It is no secret that the technology and innovation sectors create high-paying jobs and provide scalable growth, especially to geographically segregated areas, with lower impact on the environment. We look forward to the successes HTDC and its partners can bring to our great State so that the next generation will have greater career options while keeping the wonderful lifestyle we enjoy in Hawaii.

On behalf of the HTDC board, I would also like to thank Brian Goldstein who was the board chair for the fiscal year 2008. His leadership on the board has laid a healthy foundation for HTDC to embrace the challenges ahead.

Sharon M. Wong
Incoming Chair, Board of Directors

message from the executive director



Fiscal year 2007-2008 was a productive year for the High Technology Development Corporation. The activities presented in this annual report reflect the hard work by HTDC staff, made possible by streamlined internal operation, cooperation and collaboration with our stakeholders, and last but not least, Hawaii's many talented entrepreneurs who took active roles in our community to secure Hawaii's economic future.

HTDC serves the high technology community in three different roles:

1. **Incubator:** while HTDC is known for managing the Manoa Innovation Center (MIC, its flagship incubation center on Oahu), we also provide synergistic habitats for entrepreneurs and businesses in Kihei via the Maui Research and Technology Center, and on the Big Island through the Hawaii Innovation Center at Hilo.
2. **Mentoring:** offering programs needed by entrepreneurs to reach the next level, whether it is to seek federal funding or to learn best practices by managing human resources in a growing company.
3. **Connector:** providing recommendations to the legislature and the administration on policies that encourage tech sector growth.

As Hawaii develops an innovation-based economy, HTDC's role continues to evolve as well. We improved our delivery of services by presenting our incubation centers as an entrepreneurial campus rather than a mere facility, and better aligning HTDC's programs to the needs of entrepreneurs in this challenging economic climate. The campus analogy reflects the importance HTDC places on skill sets that entrepreneurs need to realize. Here, we emphasize that learning extends "off campus" as well "on campus" by providing programs beyond the walls of HTDC's incubation centers statewide. While HTDC is a State agency, we must be cognizant of resources available to entrepreneurs elsewhere. HTDC's efforts to bring in more federal dollars and programs to Hawaii's tech companies remains an important focus to bring critical mass to the tech sector, where a much further and wider economic impact can be realized.

Some of HTDC's accomplishments in the past fiscal year include: securing an additional \$100,000 in State funds during a fiscally conservative year for Hawaii Small Business Innovation Research (SBIR) award winners (to better compete for the next round of competition), bringing an awareness of MIC's lease status to legislators, and breaking the trend of relying on reserve funds for operations. While I am proud of these and other activities documented in this annual report, I am more pleased about how we were able to accomplish them; through collaboration and communication with the community.

Where and how HTDC deploys its services needs to be strategic: playing a facilitator role where appropriate, taking a leadership role where others are unable to, and collaborating to maximize on our collective resources. HTDC is not only poised to face the economic uncertainty before us, but also fully prepared to serve Hawaii's tech sector by helping our entrepreneurs see opportunities where others see an economic crisis.

Yuka Nagashima

Executive Director and CEO

entrepreneur campus

Manoa Innovation Center (MIC)

The MIC is a program designed to provide entrepreneurs in the technology and innovation field a place to gather and learn. This unique habitat allows HTDC to provide office space to qualified companies who are looking to:

- Grow their business with lease terms that reflect the needs of entrepreneurs
- Discover valuable business resources and funding opportunities
- Develop skill sets to realize their company's potential
- Learn from other mentors in their industry, and
- Increase their professional network

The MIC is a 42,000 square foot facility and has helped over 110 tech start-up companies since 1993. Developed by the State of Hawaii in partnership with the University of Hawaii, it is one of the first true technology incubators in Hawaii.

MANOA INNOVATION CENTER

Incubation nourishes Innovation

The Manoa Innovation Center (MIC) offers fresh tech start-ups the location and services to grow their business into a commercially viable and fruitful enterprise. Whether an on-site tenant or a virtual one, MIC provides a rich habitat filled with other like-minded companies to stimulate the process of innovation. Learn more at www.htdc.org.

HTDC
HIGH TECHNOLOGY DEVELOPMENT CORPORATION
Cultivating Hawaii's Tech Sector

Phone: (808) 539-3616 • Web: www.htdc.org
2800 Woodlawn Drive, Suite 100
Honolulu, Hawaii 96822

This year, MIC provided assistance to twenty-four technology companies in the incubator and reported an average occupancy rate of 95%. MIC's newest companies in the Tech Center incubation program for FY2008 include:



AMEL Technologies, Inc.

Highlights from our current MIC incubation tenants in FY2008:

- **SPROUT** (formally ChipIn) raised \$5 million in venture funding during May 2008. The company develops quick and easy ways for anyone to build, publish, and manage widgets, mini-sites, mashups, banners and more.
- **KUEHNLE AGROSYSTEMS** secured \$500,000 in venture capital funding in December 2007. HTDC provided assistance in market research, design of a scalable pilot project, a financial model, an elevator pitch and a business strategy.
- **ATCO SOFTWARE INC**, a leader in real-time bookings for the attractions industry, launched a touch screen kiosk that is considered the first of its kind. The kiosk was installed in a local Waikiki restaurant. Customers can search for availability on the screen and book reservations.
- **KAI SENSORS** was awarded the 2008 North American Technology Innovation of the Year Award from growth company consultant Frost & Sullivan. The innovation is a device that wirelessly monitors vital signs. The company also secured a contract worth up to \$850,000 from the U.S. Army to develop sensor communication technology on a single chip.



Kai Sensor's product shot

"Having Kai Sensors operate in the Manoa Innovation Center has been a big plus in helping our company get off to a promising start. We appreciate the tremendous support the MIC staff has given us."

*~ Andrea Yuen, CEO,
Kai Sensors*

"The Incubation Program has not only steered our company in the direction of potential R&D grants, business plan and pitch seminars, market analysis services, and office space possibilities, but has also brought attention on the company management in the business press and by nomination for innovation awards- all very welcome to the company as it grows!"

*~ Heidi Kuehnle, CEO,
Kuehnle AgroSystems*

In June 2008, MIC had the pleasure of hosting two formal office blessings. Both Kai Sensors and Alaka'i Consulting and Engineering shared their development efforts and future plans with all guests who attended. Special guest speakers for these events included Congressman Neil Abercrombie and Mayor Mufi Hannemann.



Kai Sensor's office blessing and product unveiling



Congressman Neil Abercrombie and Guy Ontai at the Alaka'i office blessing

"The incubation program provides exceptional value for a cost conscious, small business trying to establish itself. I especially appreciate the networking opportunities and the availability of facilities (like the conference rooms) and equipment."

~ Guy Ontai, CEO, Alaka'i Consulting and Engineering

Virtual Incubation Program

Through the help of the Economic Development Administration (EDA) grant awarded to HTDC in 2004, HTDC extended the incubation program beyond the physical walls of facilities such as MIC, The Maui Research and Technology Center and the Hawaii Innovation Center in Hilo. For businesses that are home-based or in true start-up mode, HTDC's Virtual

Incubation Program (VIP) can offer a variety of similar services formerly available only to the physical tenants of the program. This program often serves as a trial service to the full facility incubation program.

In 2008, the Virtual Incubation Program assisted nineteen start-up companies. The most recent companies to join the program for 2008 were:

Things getting a little too cozy?

When the local coffee shop no longer works for client meetings, it's time for your high-tech start-up to upgrade.

HTDC's **Virtual Incubation Program** can help high-tech start-ups with *conference rooms, business networking, mailing addresses, workshops & seminars, and more.*

For more info, give us a call at (808) 539-3616 or visit www.htdc.org/incubation/virtual

HTDC
HIGH TECHNOLOGY DEVELOPMENT CORPORATION
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2800 Woodlawn Drive, Suite 100 • Ph: (808) 539-3806 • www.htdc.org

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Virtual Incubation Program (cont.)

Highlights from our current Virtual Incubation clients in FY2008:

- **H2 TECHNOLOGIES**, an alternative energy firm that is developing hydrogen generation systems, received approval to raise up to \$50 million in private investment by selling tax-exempt special purpose revenue bonds issued through the state. House Bill 2168 to provide this approval was passed in April 2008 and signed by the Governor.
- **SOPOGY's** SopoNova 4.0 solar collector was named product of the year by the National Society of Professional Engineers. Sopogy was the first renewable energy and solar technology product ever to be awarded this honor.
- **SOPOGY** was also awarded the Hawaii Venture Capital Association's 2007 Deal of the Year. The company won this award for raising a significant amount of venture capital for its solar collector technology.

"The Virtual Incubation Program and business services that HTDC offers has allowed me to lower the startup costs of operating a small business. This program has provided beneficial networking and business opportunities that will allow me to expand my company's services. HTDC is the core of Hawaii's technology business sector."

*~ Collin Kobayashi, President & CEO,
3-D Innovations*

Service Provider Program

HTDC was thrilled to launch our newly re-structured Service Provider Program in June of 2008. This program leverages public-private sector partnerships between HTDC and experienced business professionals. All providers in the program are expected to have prior experience with start-up companies in technology and related industries. Most providers offer special discounts to HTDC clients.

Currently, HTDC is working to promote this program to various providers who would like to service its clients.



By 2009, HTDC hopes to have a website dedicated to this program with a full menu of providers that clients can easily utilize. Likewise, the website will double as a resource directory for the general public.

Workshops, Seminars and Special Events

Featuring local experts speaking on business and technical topics, this program is designed to provide current information to companies in HTDC's incubation program and the general public. These presentations provide up-to-date information and current trends to increase our clients' knowledge of business development. Some of the core topics include:

- Intellectual Property and Patents
- Marketing
- Business Planning
- Financial Operations
- Tax Credits

Featured Presentations:

- ABC's of Leasing Commercial Office Space, Hawaii Commercial Real Estate
- Business Challenges of Hawaii Tech Start-Ups, VentureSpheres, Patt Steiner
- How to Turn Around a Troubled Business, Marty Parisien
- Will Social Networking Affect You and Your Business, PeopleBridge, Dave Kozuki

Mapping Out Hawaii's Future with Guy Kawasaki



HTDC partnered with HiBEAM and the Hawaii Strategic Development Corporation in an invitation only event with Guy Kawasaki. Kawasaki engaged the audience in a discussion to strategize next steps for Hawaii's technology and innovation sectors for a better Hawaii.

UH College of Engineering Fall Career Day

This yearly event sponsored by the College of Engineering featured over 60 exhibitors representing federal, state, city, and private entities offering positions to potential graduates of the School of Engineering.

2008 Business, Technology and Innovation Conference

HTDC joined with Hawaii Pacific Entertainment and Technology News Bytes and the Chamber of Hawaii in this year's 2008 Technology & Internet Expo at the Neal Blaisdell Hall. The expo showcased current technology solutions and innovations for local Hawaii businesses. HTDC had the opportunity to present our programs to the attendees, and provide several technology clients the chance to participate in the expo.

HTDC likewise participated in the Maui expo along with Hawaii Pacific Entertainment and Technology News Bytes and the Maui Chamber of Commerce in May 2008.

CEO Brown Bag Lunch Forums

HTDC provides a monthly executive level forum for client companies to network and share business issues. This forum provides an open exchange of ideas and input on various concerns of these growing companies. Discussions are facilitated by HTDC's Executive Director and experts are brought in to address specific topics.



Topics include:

- Patent filing challenges
- Legislative update
- Technology master planning
- Marketing opportunities
- Company status reporting
- Facility issue

"I've attended several of the sessions held through the Incubator Program. In almost every instance I've made a key business contact and/or come away with important information useful to our business."

*~ Dave Kozuki, CEO,
PeopleBridge*

HiTechHawaii.com

HiTechHawaii.com is the portal to Hawaii's high technology industry, where you will find tech resources, news, events, businesses, and jobs under one virtual roof.

Over 1,700 people are on the HiTechHawaii.com mailing list and receive weekly highlights on Hawaii technology industry news, events, and notices of newly posted jobs from the TechJobsHawaii.org website.

Members can join the Technology Business Directory, a listing of technology companies and support services for the tech industry. With links to business and technology resources state-wide, HiTechHawaii.com serves Hawaii's growing tech industry.

TechJobsHawaii.org

Over the past nine years, HTDC has served the tech industry through public and private partnerships to assist with building a pool of skilled workforce. The partnership targets kamaaina living on the mainland, providing them with information and opportunities to meet with innovative companies up close and personal. Educating the local talent is also imperative and done through events at the University of Hawaii, and outreach initiatives to local organizations and schools. The tech industry utilizes the www.techjobshawaii.org site as a major tool to advertise career opportunities and find qualified workers in the resume databases.

- HTDC was a co-sponsor for the Kamaaina Come Home event in San Diego, an initiative of Economic Development Boards of Hawaii. This event presented career opportunities and virtual programs available to start a business in Hawaii to expats.

TechJobsHawaii

2007 Annual Holiday Science & Tech Fair

- Over 20 companies and 200 attendees participated
- Demonstrations by UH College of Engineering and McKinley High School Robotics team were provided



STEM Excursion

- Connected college students and high school students with real world working environments in Hawaii's high tech industry
- Toured UH's John A. Burns School of Medicine and Tissue Genesis, a biotech company



HTDC proudly continues to support neighbor island technology initiatives, programs and activities. HTDC applauds the many organizations who contributed efforts, ingenuity and innovative programs to increase technology economic development throughout the State of Hawaii.



The Export Readiness Training Program is a program of the U.S. Department of Agriculture (USDA), and the Foreign Agricultural Service (FAS). WUSATA (Western United States Agricultural Trade Association) manages the program with cooperation from the Hawaii Department of Agriculture (HDOA) to provide export training to Hawaii agricultural growers and food processors who are new to exporting. This program taught the how to's of exporting to small-and-medium size companies ready to export to emerging markets.

The training sessions were hosted in Honolulu at various locations, and linked to Kauai, Maui, and Kona via video conference. At the end of the 10-session program, each company shared their training experience and presented their export plan to other companies at the Manoa Innovation Center.

10TH BIENNIAL

Hawaii SBIR & STTR CONFERENCE

The 10th Biennial Hawaii SBIR&STTR Conference was held on November 13-16, 2007 on the islands of Oahu, Maui, Kauai, and Hawaii Island. This conference gave Hawaii technology and research companies the opportunity to meet one-on-one with federal SBIR program managers and learn about SBIR agencies' funding priorities. It also allowed the attendees to learn about federal and local resource organizations that can help take a company's product prototype to the next level. Each year, \$2.5 billion in federal small business R&D grants are available to companies for R&D research nationally. HTDC programs position Hawaii companies to effectively compete for these awards by providing grant-writing assistance, and Hawaii SBIR matching awards. The award rates have more than doubled since 1996.

MAUI

The Maui Research and Technology Center (MRTC) is strategically located in the 415-acre Maui Research and Technology Park in Kihei. This research and development facility remains HTDC's hub for support to technology companies. The MRTC also administers a Maui Virtual Incubation Program for those smaller companies who do not require office space.



Governor Linda Lingle addresses the SBIR conference attendees



Speakers/panelists and federal managers



MRTC provided office space to nine tenants and had an average occupancy rate of 95% for FY2008. MRTC's newest tenants in the Tech Center include: CSP Pacific Division LLC and Kihei Charter School's STEM program. This pilot program is recognized as the first official STEM education program conducted in Hawaii.



statewide initiatives

Hawaii Island

The Hawaii Innovation Center at Hilo (HICH) is located in the business district on Hawaii Island. The 8,000 square foot facility is a mix-use incubator and is currently helping up to eight companies in their start-up phase. The HICH has been able to retain a 100% average occupancy rate for FY2008. Similarly, the HICH manages a Virtual Incubation Program for smaller clientele.



Hawaii Center for Advanced Transportation Technologies Big Island Project

In a project jointly funded by U.S. Departments of Energy, Transportation, and Interior, HCATT (see page 11 for full project description), a program of HTDC, is partnering with the Hawaii Natural Energy Institute (HNEI) of the University of Hawaii to introduce hydrogen powered, zero-emission tour buses into Volcanoes National Park on the Big Island. The project combines the use of alternative energy and alternative fuel in meeting a new requirement for the National Park Service.

Hybrid electric buses powered by lithium ion batteries and hydrogen will be developed by HCATT and put into operation in Volcanoes National Park. This hybrid bus will provide a “zero-emission vehicle” tour experience and reduce the numbers of petroleum burning vehicles in the park. A small hydrogen production and fueling station will be installed by HNEI to provide fuel for the buses, with power supplied to the station from the Puna Geothermal Plant.

This is a renewable energy and alternative fuel vehicle initiative to enhance the experience of the two million annual visitors to the park. Although planning for the project occurred in FY2008, actual execution of the project is expected in FY2009 with the anticipated receipt of previously appropriated funding.

Kauai

HTDC had the privilege to participate in events on Kauai such as the Small Business Expo, and to organize the e-Commerce/e-Marketing workshop. By working together with the Kauai Chamber of Commerce, HTDC



and the Kauai County Office of Economic Development hopes these and future events will continue to encourage the entrepreneur spirit, exchange of best business practices and provide business innovation strategies to companies to plan appropriately and succeed.

“The Kauai Chamber of Commerce has partnered with the HTDC in its outreach efforts to Kauai that has benefitted many small businesses and start-ups. This is especially true and important because Kauai is a neighbor island and rural community which needs programs delivered locally on Kauai instead of having members have the added expense of flying to O’ahu for training programs. Of the 435 members of the chamber, 85% are small businesses that don’t have the expertise and or staff (human resources, legal, etc.) to provide the necessary programs in support of the member businesses and organizations.

Since HTDC’s initial partnership with the chamber beginning with the Small Business Expo held in April during the annual Small Business Administration month and soon followed by an e-Commerce/e-Marketing Workshop in May that benefitted nearly 60 small businesses that did not have the benefit of a website, the partnership has continued to grow with programs continuing into the end of 2008 including an Export/Import workshop.”

*~Randy Francisco, President,
Kauai Chamber of Commerce*

Hawaii Small Businesses Win Grants To Develop New Products and Innovations

12 small innovative Hawaii companies won nearly \$7 million in SBIR/STTR Research & Development funding last year.

Since 1989, HTDC has assisted 69 companies win over 300 SBIR and STTR awards valued at over \$74 million in federal grants and contracts, plus an additional \$58 million for commercialization

Research and development funding for new, untested ideas is extremely difficult to come by. SBIR seed-stage grant funds are especially important during times of economic downturn as traditional sources of funding from banks, investors and other financial institutions are even harder to access. The federal Small Business Innovation Research (SBIR) and Small Business Technology Transfer Research (STTR) program is a valuable source of R&D funds. Set-up as a national competition, eleven federal agencies solicit ideas from small businesses and award over \$2 billion for innovative ideas to prove feasibility to develop working prototypes. (See www.htdc.org/sbir for more information.)

The National Research Council of the National Academies cites SBIR as an important national program to spur innovation in the U.S. Specifically, SBIR stimulates technological innovation, linking universities to the public and private markets, and increasing private sector commercialization of innovations.

HTDC aims to strengthen our local economy by helping our innovative firms succeed in the SBIR program. HTDC provides information on getting started in SBIR/STTR by:

- Coaching and training on submitting a competitive grant proposal
- Providing state matching grants to increase the likelihood of the project's success
- Offering the assistance of HTDC-Manufacturing Extension Partnership consultants to help SBIR firms with developing new products for commercial use

"I am extremely grateful for the assistance we received and would like to commend you (HTDC) for your leadership in having such a program.... whether we receive an award or not makes no difference. Without the help you and your consultants provided we would not have been able to just get to the starting gate with a decent proposal. For that you have my sincerest Mahalo...."

*~Clyde S. Tamaru, Aquaculture Specialist
UH Sea Grant College Program*

Archinoetics wins prestigious Tibbetts Award

These prestigious national awards are made annually to those small firms, projects, organizations and individuals that exemplify the very best in SBIR achievement. The emphasis is on recognizing those accomplishments where, in the judgment of those closely involved and often most immediately affected, the stimulus of SBIR funding has made an important and definable difference. This year Archinoetics, a Hawaii SBIR company, was presented with the Tibbetts Award at an award ceremony in Washington, DC.



Hawaii Center for Advanced Transportation Technologies (HCATT) Promotes Alternative Energy

As it has since 1994, HCATT continues to develop and demonstrate



alternative fuel vehicle technologies. However, this past year it has added alternative energy initiatives to its portfolio and also reopened its doors as an incubator facility. With the advent of the Hawaii Clean Energy Initiative (HCEI), a partnership established this year between the State and the U.S. Department of Energy to reduce Hawaii's use of imported petroleum from over 90% to 30% by the year 2030, HCATT acted quickly to incorporate renewable energy projects into its program. Additionally, HCATT now provides office and shop space at its facility for Hawaii Hydrogen Carriers, a small start-up company developing new hydrogen storage technology that is being integrated into military equipment for operation at Hickam Air Force Base.



Hydrogen production and fueling station at Hickam Air Force Base

continued on the next page

bringing home federal dollars

Hawaii Center for Advanced Transportation Technologies (HCATT) Promotes Alternative Energy

(continued from previous page)

HCATT previously directed the development and installation of a hydrogen production and fueling station at Hickam Air Force Base to fuel the growing fleet of hydrogen fuel cell powered vehicles. Hydrogen is produced through electrolysis of water, and the station is connected to the utility grid to provide power for the electrolyzers. Although our electric power grid is petroleum based, this initial station connection directly to the grid was intentional to provide a simple approach to familiarizing Air Force personnel with the handling of compressed hydrogen as a new fuel for their advanced technology vehicles. The power source for the station was intended to be renewable, and funding from the Air Force in FY2008 afforded the opportunity to begin the planning phases.

A 146kW photovoltaic (PV) array has been designed for installation adjacent to the hydrogen station, producing hydrogen from solar energy. The hydrogen station contains two electrolyzers capable of producing up to 48 kilograms of hydrogen in a 24-hour period. However, the demand, based on the existing fleet of hydrogen powered vehicles, has kept production well below the total output capacity. Given the estimated hours of available energy from the sun, the station will be able to produce up to 12 kilograms of hydrogen per day using only renewable energy from the sun.

To supplement this capacity, HCATT will also be installing five 10kW vertical axis wind turbines (VAWT) for a potential additional 50kW of renewable energy from the wind to produce hydrogen at the station. Due to the hydrogen station's proximity to the Honolulu Airport flightline, the shorter VAWT must be used, rather than the taller traditional horizontal axis wind turbine. This substitution makes the wind project more of a research and development initiative as VAWT technology is still in the development and proof of performance stages. Nevertheless, the goal of HCATT and the Air Force is to produce renewable hydrogen using alternative energy sources. Both the PV array and wind turbines are scheduled to be installed and operating in FY2009.

Manufacturing Extension Partnership (MEP)

The National Institute of Standards and Technology, Manufacturing Extension Partnership (MEP) program has been hosted in Hawaii by HTDC for the last five years. As a program aligned under HTDC, HTDC-MEP shares a common goal to support the development and growth of Hawaii's commercial high technology industry.

HTDC-MEP is part of a national network of 59 MEP centers nationwide that are transforming manufacturers (many of which are technology firms) to compete productively, effectively and globally. The MEP program assists small- to medium-size businesses become more profitable by providing consulting services in such areas as product development, financial analysis, marketing, entrepreneurial training, lean manufacturing training, value stream mapping, growth strategies, export readiness training and energy efficiency planning.

FY08 accomplishments:

- Became a recognized source of assistance for manufacturing and dual use companies in Hawaii, as measured by overall increased impacts to our clients resulting in \$18.1 million in client cost savings, which includes new and retained sales.
- Achieved greater exposure and presence in the business community on the neighbor islands. Assisted more grass roots businesses expand and become more profitable, resulting in \$4.1 million in client cost savings, which includes new and retained sales in Maui, Hawaii and Kauai.

Client Success Example

Client: Cellular bioengineering Inc. (CBI)

Product: CBI focuses on regenerative medicine, or the bioengineering of replacement parts for aging and diseased tissues and organs.

MEP assistance: assisted with setting-up a U.S. Food and Drug Administration (FDA) compliant procedural and recordkeeping system and clean room operating with Good Laboratory Practices and Good Manufacturing Practices.

Results: provided CBI with the expertise to result in a cost effective investment of \$170,000 to develop two FDA compliant clean rooms for continuing research in corneal cell regeneration.

State of Hawaii Legislature in 2008

2008 was a year of communication. Much effort was put into developing awareness and acceptance of changes needed to diversify Hawaii's economy through tech-based economic development initiatives. Below is a summary of those efforts.

Building Hawaii's Infrastructure for Tech-Based Economic Development Growth

- **Manoa Innovation Center (House Concurrent Resolution 312)**
The state legislature passed a resolution urging the University of Hawaii to extend their land lease agreement with the High Technology Development Corporation for an additional five years to continue HTDC's operation of the Manoa Innovation Center – Oahu's only incubator and innovation center.
- **Proposed Oahu Technology Park (House Bill 3358)**
The House introduced a bill and capital improvement program funding for infrastructure costs for a technology park on Oahu. Each major island in the state has a research or technology park except the island of Oahu. Had it passed, this bill would have jump started what is normally a long-term process of development.
- **Planning for Tech Infrastructure Development (House Bill 3360)**
Proposed House Bill 3360 would have allowed the state to plan and implement needed infrastructure development in Kakaako, located in downtown Oahu adjacent to the new John A. Burns School of Medicine and planned Cancer Research Center of Hawaii.

Building on Hawaii's Research and Development Infrastructure

- **Small Business Innovation Research and Small Business Tech Transfer (House Budget Bill 2500, Act 191)**
A budget request adding \$100,000 for local small businesses conducting research and development projects was approved by the legislature.
- **Amendments to Hawaii's Small Business Innovation and Small Business Technology Transfer Grant Programs (House Bill 2415 and Senate Bill 2394)**
A request to expand Hawaii's tech innovation programs that would help to improve the growth of local technology companies, hence jobs, failed to pass in conference hearings.

Building Hawaii's Energy Resources

- **House Bill 2178, Act 116**
H2 Technologies, Inc. received approval from the legislature for \$50 million in special purpose revenue bonds for construction of a Hydrogen Generator Appliance Laboratory and hydrogen generation and conversion facilities.

- **Senate Bill 3190, Act 105**

Sopogy, Inc. received approval from the legislature for \$35 million in special purpose revenue bonds for planning, designing, construction, equipping, and operating a solar farm power plant on the island of Oahu to produce electricity from solar power.

Keeping the Lines of Communication Open

- **Briefings with Legislators November 2007**
Legislators attended briefings on projects and programs and held discussions to assess next steps for statewide high tech industry growth.
- **Pre and Post Legislative Sessions with Tech Companies**
Various pre-legislative meetings and events were held with Hawaii's tech companies asking for input. Post informational sessions were held to inform companies on status of the 2008 legislative tech-based economic development initiatives.

Legislative Initiatives 2009

- **Expand Support for Hawaii Companies Receiving Federally Funded Research and Development Innovation Grants.**
Action: Resubmit proposed legislation (SLH 2008: previously House Bill 2415/Senate Bill 2394).
- **Push for Policy Planning and Greater Collaboration with Stakeholders and Community.**
Action: Continue collaboration with tech-based economic development stakeholders to update statewide technology development plan. Increase community interaction and awareness of the roles innovation and entrepreneurship play in to sustaining and growing the State in a global economy.
- **Continue to Strengthen Relationship with University of Hawaii Research & Development.**
Action: Support the designation of the President of the University of Hawaii to the HTDC Board of Directors (ex-officio member of the Board).
- **High Tech Tax Credits**
Action: With input from all stakeholders, particularly local tech companies and investors, support efforts to improve Hawaii's current tech-based economic development tax credit programs.
- **Continue to Communicate with Stakeholders to include Community-At-Large, Industry, Government, and National Tech-Based Economic Development Associates.**
- **Educate about Current Focus (Entrepreneurial Campus, Statewide Programs, and Federal/State Partnership Projects), Given Limiting Resources.**

financial information

| | FY 2008 | FY 2007 |
|---|----------------------------|--------------------|
| Revenues and Other Funding | | |
| State General Fund | \$ 999,994 | \$ 938,416 |
| HTDC Special Fund | 2,502,869 | 2,033,203 |
| Federal Funds | 534,000 | 3,076,459 |
| Total Revenues and Other Funding | 4,036,863 | 6,048,078 |
| Expenditures by Program | | |
| Federal Projects including Cash Match Contribution | 2,851,790 | 3,596,639 |
| Federal Project Support | 162,228 | 168,624 |
| SBIR Grants | 260,000 | 260,000 |
| Technology Centers | 1,426,756 | 1,273,952 |
| Administration | 629,876 | 548,238 |
| Technology-based Economic Development | 347,372 | 445,145 |
| Public Relations/Marketing | 4,442 | 10,511 |
| Others | 31,107 | 84,545 |
| Total Expenditures | 5,713,571 | 6,387,654 |
| Excess (deficiency) of revenues and other financing sources over expenditures | (1,676,708) ⁽¹⁾ | (339,576) |
| Beginning fund balances | 4,207,187 | \$4,546,763 |
| Adjustments to fund balance: | | |
| Prior year accrued obligations disencumbered | 200,615 | |
| Other adjustments | 115,904 | |
| Fund balances, June 30, 2008 | \$2,846,998 | \$4,207,187 |

⁽¹⁾ Due to the receipt of late funds in both FY2006 and FY2007 for HCATT, some of the corresponding contracts for specific projects being funded were not executed until the following fiscal year. The timing of the receipts and obligations in different fiscal years contributes to the disparities in revenues and expenditures and overall net deficiency of FY2008 revenues as compared to expenditures.

Notes to Financial Information

Sources of Funding:

HTDC relies on three main sources to fund its programs and projects:

1. The State of Hawaii's general fund: HTDC, as an agency of the State of Hawaii, receives an appropriation from the legislature each year.
2. HTDC special fund: Revenues generated from HTDC's technology centers, conferences and workshops, contracts and fees from consulting services are deposited into the HTDC special fund. It also includes restricted funds from federal programs.
3. Federal funds: Funds received through agreements with federal agencies. Federally supported projects include HCATT and MEP.

The State's general fund appropriation has been reduced through the years but has been stable from FY2006. With the lower general fund appropriation, HTDC has increasingly had to rely on funds from the HTDC special fund and federally funded projects. Generating significant revenues to offset the lower general fund appropriation to support existing programs and projects as well as provide start-up funding for new projects which, in turn, can generate additional revenues is an ongoing challenge.

HTDC looks to federally funded projects such as the MEP program to supplement its core services. While alignment with federal programs provides some relief, it does not fully address our funding gap as most grants have a matching requirement for the grantee which further taps the resources of the HTDC special fund.

General Funds

While general funding level is significantly lower in recent years, the decrease has leveled off.

Special Funds

FY2006 and FY2007 special fund revenues were lower than usual at MRTC due to either the relocation of anchor tenants to a new building within the tech park or graduating from the center to commercial space outside of the tech park. The large spaces were not fully reoccupied until late FY2007, partly due to the limited amount of large tech companies on the island. A portion of the space was leased to the Kihei Charter School for its STEM program as part of the effort to align HTDC's efforts with Governor Lingle's innovation initiatives. The graph illustrates the normalization of tech center revenues in FY2008 and increase in revenues generated by the MEP program.

Federal Funds

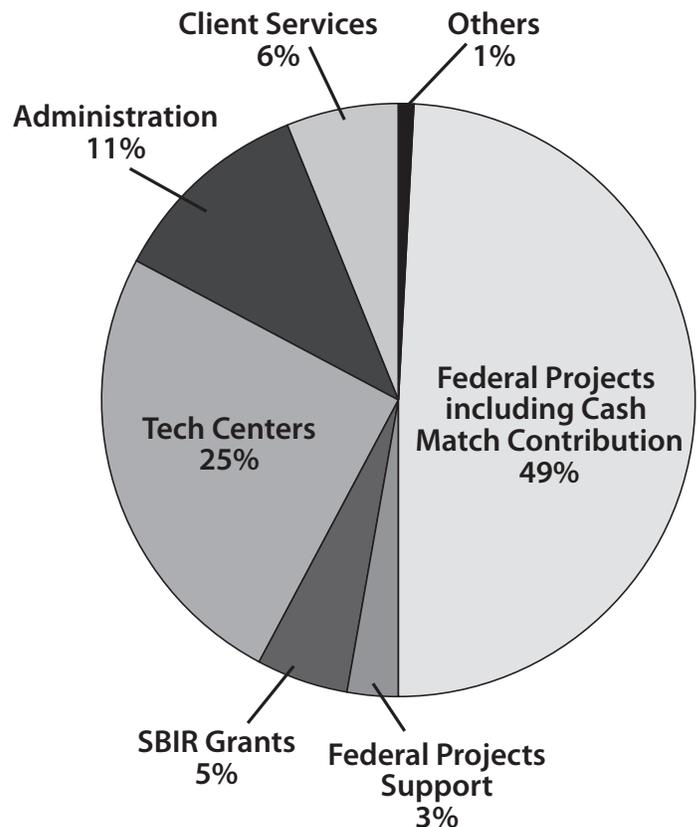
Federal funding received in fiscal years fluctuates depending on the specific projects being funded, value of the projects, and timing of the awards. Federal funding varies significantly from year to year due to these factors. Such is the case with HCATT, with the U.S. Air Force awarding approximately \$3.0 million in FY2006, another \$2.4 million in FY2007, but delayed the FY2008 funding of approximately \$2.4 million until the beginning of FY2009.

With HTDC's limited financial resources, it inventoried its existing projects, reassessed the benefits to its mission and the Governor's initiatives, and reallocated resources. Special fund

expenditures in FY2008 decreased mainly due to payroll savings from several vacant positions and reprioritizing of projects, partnering on projects or elimination of others.

HTDC's goal is to continue to offer value-added services and programs to the private sector by refocusing on the mission and role of government, and by leveraging our resources more effectively via public-private partnerships as well as strategically seeking federal funds.

**Expenditures by Programs/Projects
FY2008**



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As of June 30, 2008



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Craig I. Nakanishi, Esq.
(term expires 6/30/11)
Rush Moore LLP

Special Thank You!

Margaret Ahn, Deputy Attorney General,
Department of Attorney General

Mark Anderson, Deputy Director, Department of Business
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Maurice Kaya, former CTO, DBEDT

Robert Piper, Deputy Director, Budget and Finance

Antonio "Tony" Saguibo, Jr., Assistant Vice President -
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Mahalo to our Resource Partners!

Colliers Monroe Friedlander, Kelli Yanagawa Wilinski
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Pacific Business News

SCORE

Tsunami Marketing, Robert Rekward

University of Hawaii, Office of Technology Transfer,

Richard Cox, Ann Park, Lisa Matsunaga

VIP consultants

Wasabi Marketing Elements, Winston Welborn

HTDC Staff



HTDC Staff as of October 2008

Yuka Nagashima, Executive Director and CEO

Kay Yamada, Project Development Manager

Coleen Yoshina, Executive Secretary

Steve Sakuda, Controller

Yvonne Isobe, Senior Account Clerk

Gail Yamasaki, Account Clerk

Russell Au, Business Development Manager

Nancy Hiraoka, Program Specialist, Service Provider (until 9/07)

Sandi Kanemori, Program Specialist, Business Development

Sandra Park, Program Specialist, Workshops and Seminars

Janice Kato, Federal Programs Manager and MEP Center Director

Robert Mon, Federal Programs Specialist (until 3/08)

Wayne Inouye, Sr. Project Manager, MEP

Francis Chan, Project Manager, MEP

Djuliani "Julie" Soeharto Cordiano, MEP Budget and Program Specialist

Nina Ann Tanabe, Project Manager, MEP

Thomas Quinn, HCATT Manager

Kristy Carpio, HCATT Secretary

Sylvia Bollmeier, Contracts Administrator

Dean Yoshida, Network Administrator (until 3/08)

Todd Masui, Web Services Administrator (until 5/08)

Derrin Chong, IT Network and Web Specialist (beginning 9/08)



Manoa Innovation Center
2800 Woodlawn Drive, Suite 100
Honolulu, Hawaii 96822

Telephone: (808) 539-3806
Fax: (808) 539-3611

info@htdc.org
www.htdc.org

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