

# MOVING THE NEEDLE

A Strategic Direction to Expand the Economy,  
Reverse the Brain Drain, and Grow the Tax Base

Presentation to House of Representatives:  
Committee on Finance  
Friday, January 12, 2024



STATE OF HAWAII • DEPARTMENT OF BUSINESS,  
ECONOMIC DEVELOPMENT & TOURISM

What is the State of the State?

Sectors that Diversify Hawai'i's Economy and Reverse Brain Drain

DBEDT's Framework – Cradle to Grave

Implementation

# U.S. AND HAWAI'I INDUSTRY STRUCTURE % OF 2022 GDP BY INDUSTRY

| Industry                                      | U.S. | Hawaii | Concentration U.S. =100 |
|---|------|--------|-------------------------|
| Agriculture, forestry, fishing and hunting    | 1.1  | 0.5    | 48.6                    |
| Mining, quarrying, and oil and gas extraction | 1.8  | 0.1    | 4.9                     |
| Utilities                                     | 1.7  | 2.5    | 146.4                   |
| Construction                                  | 4.2  | 5.7    | 133.5                   |
| Manufacturing                                 | 10.3 | 1.7    | 16.4                    |
| Trade   | 12.3 | 10.8   | 88.0                    |
| Transportation and warehousing                | 3.6  | 5.1    | 142.1                   |
| Information                                   | 5.4  | 2.4    | 44.4                    |
| Finance and insurance                         | 7.5  | 4.0    | 53.7                    |
| Real estate and rental and leasing            | 13.2 | 17.2   | 130.6                   |
| Professional and business services            | 12.9 | 8.6    | 66.9                    |
| Educational services                          | 1.1  | 1.1    | 96.9                    |
| Health care and social assistance             | 7.2  | 7.4    | 102.4                   |
| Hospitality                                   | 4.2  | 10.9   | 259.0                   |
| Other services                                | 2.1  | 2.4    | 115.1                   |
| Government                                    | 11.4 | 19.6   | 171.5                   |
| Top 5 Industries                              | 55.3 | 67.1   | 121.4                   |

Source: U.S. Bureau of Economic Analysis

# HAWAI'I INDUSTRY SHARE OF GDP: 2002 AND 2022 (%)

| Industry (by NAICS code)   | 2002 | 2022 |   |
|--|------|------|---|
| Real estate and rental and leasing                                 | 15.4 | 17.2 | ↑ |
| Health care and social assistance                                  | 6.3  | 7.4  |   |
| Mining and construction  | 5.2  | 5.8  |   |
| Transportation and warehousing                                     | 4.2  | 5.1  |   |
| Utilities  | 1.9  | 2.5  |   |
| Hospitality  | 10.9 | 10.9 | ↔ |
| Professional, scientific, and technical services                   | 4.5  | 4.5  |   |
| Educational services   | 1.1  | 1.1  |   |
| Federal government   | 12.0 | 11.1 | ↓ |
| Trade  | 11.4 | 10.8 |   |
| State & local government   | 9.8  | 8.5  |   |
| Finance & insurance  | 4.1  | 4.0  |   |
| Administrative & support & waste management & remediation services | 3.2  | 2.9  |   |
| Other services   | 3.0  | 2.4  |   |
| Information  | 2.8  | 2.4  |   |
| Manufacturing  | 2.2  | 1.7  |   |
| Management of companies and enterprises                            | 1.3  | 1.2  |   |
| Agriculture, forestry, fishing and hunting                         | 0.8  | 0.5  |   |

Source: U.S. Bureau of Economic Analysis

# America's Top States for Business 2022: The full rankings

PUBLISHED WED, JUL 13 2022 8:09 AM EDT | UPDATED TUE, JUN 13 2023 4:58 PM EDT

CNBC.com staff  
@CNBCSHARE [f](#) [t](#) [in](#) [✉](#)

## AMERICA'S TOP STATES FOR BUSINESS 2022

| OVERALL RANK ↓ | STATE ↓                     | WORKFORCE ↓ | INFRA-STRUCTURE ↓ | COST OF DOING BUSINESS ↓ | ECONOMY ↓ | LIFE, HEALTH & INCLUSION ↓ | TECHNOLOGY & INNOVATION ↓ | BUSINESS FRIENDLINESS ↓ |
|----------------|-----------------------------|-------------|-------------------|--------------------------|-----------|----------------------------|---------------------------|-------------------------|
| 33             | <a href="#">Alabama</a>     | 13          | 38                | 24                       | 27        | 38                         | 21                        | 25                      |
| 49             | <a href="#">Alaska</a>      | 34          | 50                | 46                       | 38        | 11                         | 50                        | 12                      |
| 34             | <a href="#">Arizona</a>     | 7           | 6                 | 35                       | 22        | 50                         | 29                        | 4                       |
| 41             | <a href="#">Arkansas</a>    | 38          | 30                | 13                       | 24        | 37                         | 40                        | 29                      |
| 29             | <a href="#">California</a>  | 16          | 25                | 48                       | 17        | 26                         | 1                         | 48                      |
| 4              | <a href="#">Colorado</a>    | 1           | 16                | 36                       | 11        | 12                         | 9                         | 16                      |
| 39             | <a href="#">Connecticut</a> | 14          | 39                | 45                       | 47        | 17                         | 25                        | 11                      |
| 28             | <a href="#">Delaware</a>    | 5           | 20                | 37                       | 22        | 24                         | 32                        | 26                      |
| 11             | <a href="#">Florida</a>     | 6           | 13                | 30                       | 4         | 39                         | 16                        | 39                      |
| 10             | <a href="#">Georgia</a>     | 3           | 11                | 38                       | 7         | 39                         | 12                        | 32                      |
| 46             | <a href="#">Hawaii</a>      | 19          | 39                | 50                       | 48        | 3                          | 40                        | 35                      |

# EMERGING INDUSTRIES REPORT

| Technology   | Creative                            | Agribusiness   | Health & Wellness              | Education (Private) | Other Targeted Activities |
|--|-------------------------------------|--|--------------------------------|---------------------|---------------------------|
| Alternative Power Generation<br>Engineering<br>Technology<br>Manufacturing | Cultural<br>Film and Media<br>Music | Packaging and Warehousing<br>Processing<br>Support Services<br>Farm Production | Specialty Health Care Services |                     | Apparel                   |

Source: Hawai'i's Targeted & Emerging Industries, DBEDT 2023 Update Report

**Emerging  
Activities**

**Base-  
Growth  
Activities**



## **ECONOMICALLY SUSTAINABLE HAWAI'I**

Strengthen Hawai'i's essential lifelines through innovation in agriculture and food production, green energy, and water reuse and conservation.



## **CREATIVE & INNOVATION**

Support high-tech, entrepreneurial capacity-building, financing, and spaced for production and export of Hawai'i's creative and intellectual property.



## **EDUCATION & WORKFORCE DEVELOPMENT**

Provide residents with access to education and training opportunities that support continued reopening and new work opportunities in high-need and emerging sectors.



## **HOUSING**

Advance strategic projects, policies, and infrastructure that help to increase supply and lower Hawai'i's housing for kama'āina.

Source: Hawai'i 2.0





## **STRENGTHEN CURRENT ECONOMIC ANCHORS**

Hawai'i's major sectors  
Serves as the anchors for  
the state's economy



## **CULTIVATE AND GROW EMERGING SECTORS**

Small sectors with high  
growth potential  
Leverage Hawai'i's  
competitive advantages



## **DEVELOP WORKFORCE AND HUMAN CAPITAL**

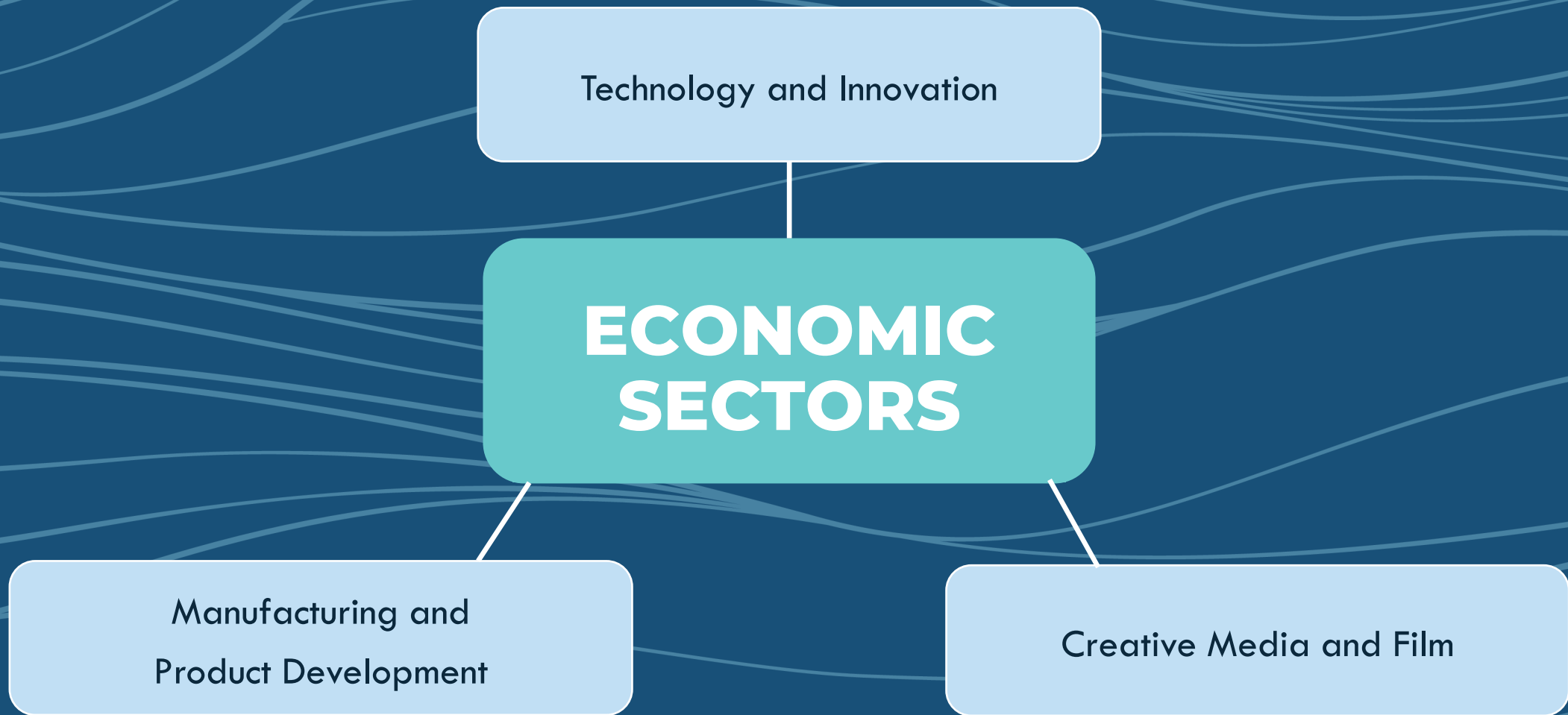
Workforce that is prepared  
and well trained  
Training for entrepreneurs  
Access to capital



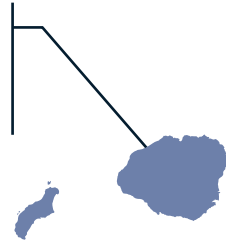
## **BUILD/UPDATE ECONOMIC FOUNDATIONS**

Assets and elements such as  
infrastructure and housing

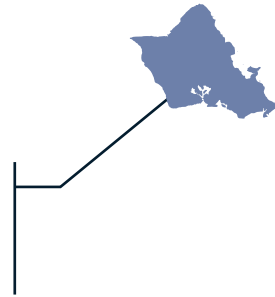
Source: 2023 Hawai'i State CEDS



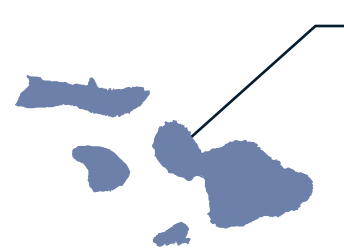
Value-Add (ADC)  
Aerospace (HTDC)



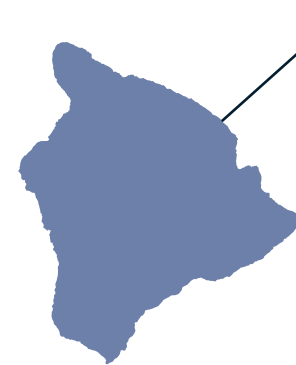
Value-Add (ADC)  
Aerospace (HTDC)  
Fashion Manufacturing (CID)  
Healthcare (HTDC)  
Film & Media (CID)



Value-Add (ADC)  
Aerospace (HTDC)  
Film & Media (CID)



Value-Add (ADC)  
Aquaculture (NELHA)  
Energy (NELHA)  
Aerospace (HTDC)  
Film & Media (CID)





## **Curriculum to Career**



## **Infrastructure and Facilities**



## **Policy Changes**



## **Layering Incentives**

# CRADLE TO CAREER



Map it Out



Outline Workforce Development



Assessment of Assets



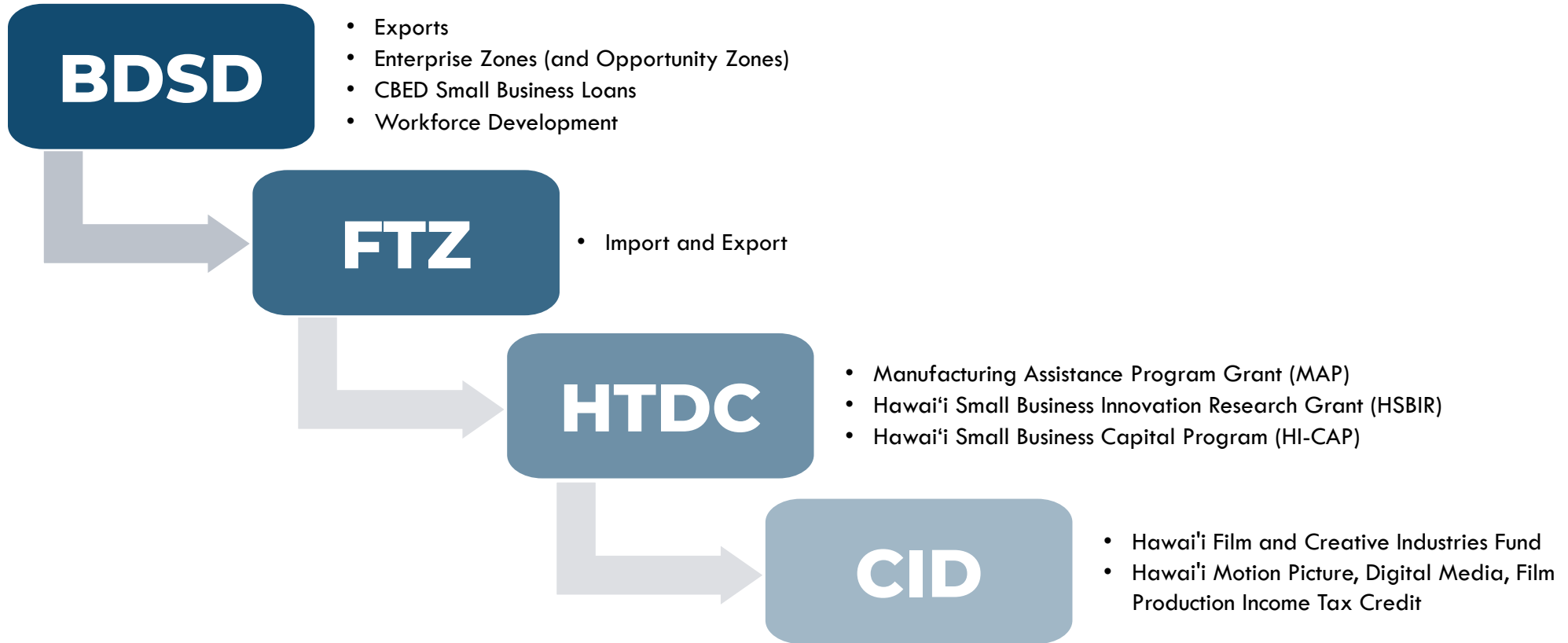
Identify Resources Needed



DBEDT eco-system



# DBEDT Eco-System – Layering Incentives

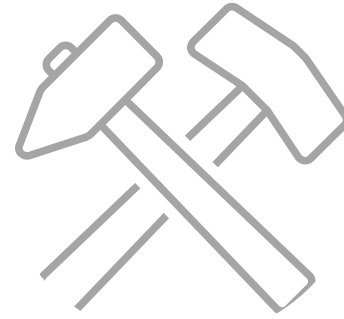


Technology and Innovation

# ECONOMIC SECTORS

Manufacturing and  
Product Development

Creative Media and Film



# INDUSTRIES



Aerospace



Advanced  
Manufacturing



Artificial  
Intelligence



Healthcare



Energy



# HAWAI'I TECHNOLOGY DEVELOPMENT CORPORATION



## **Goal: Develop and Diversify Hawai'i's Innovation and Technology Economy**

Facilitate the growth and development of the commercial technology industry



## **Goal: Grow Businesses**

Provide programs that mentor, educate, and resources for businesses to scale-up

PMRF  
Kapa'a-Kaua'i-Waimea  
Complex Area  
UH Kaua'i Community  
College

U.S. Space Force  
Engineering and Manufacturing  
Contractors  
DOE Complex?  
UH College of Engineering

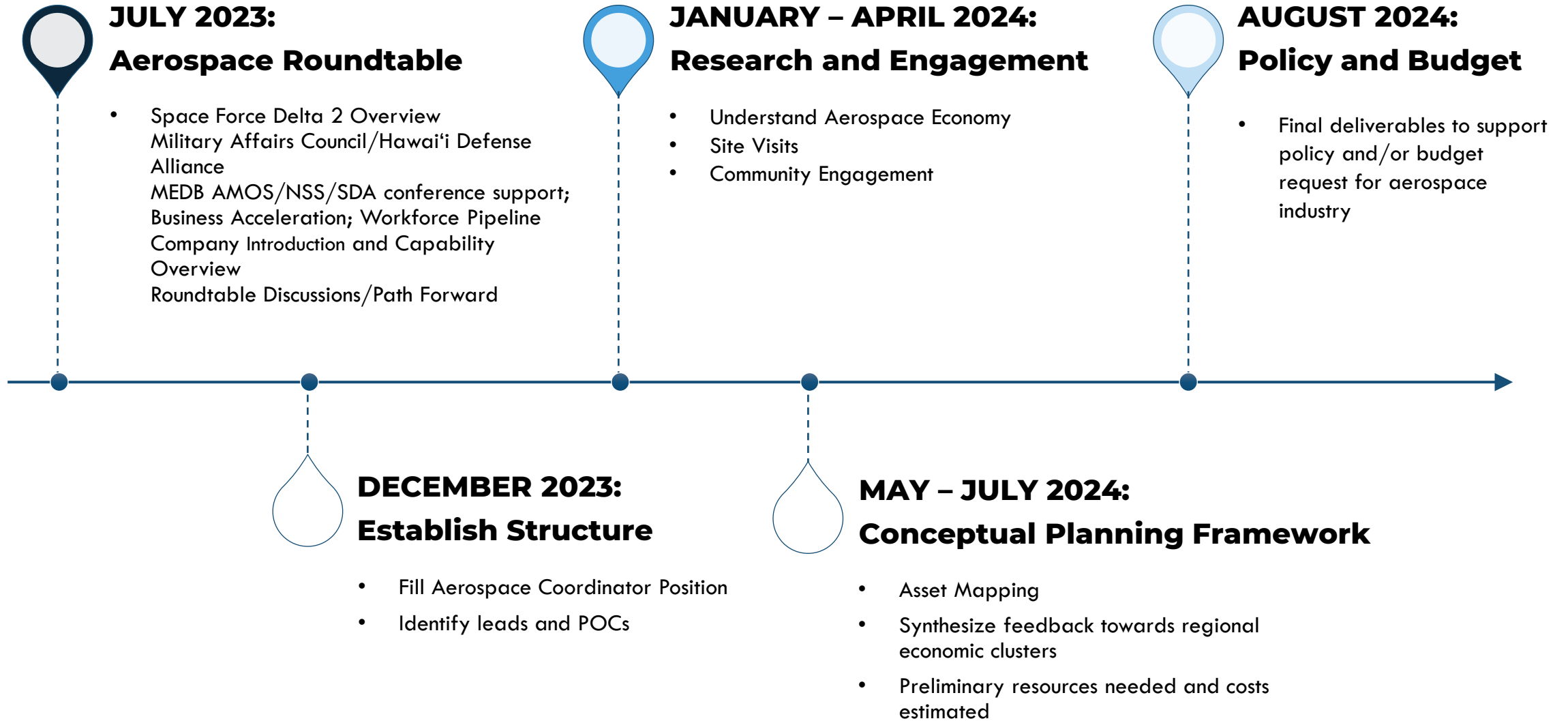
U.S. Space Force  
Engineering and Manufacturing  
Contractors  
Baldwin-Kekaulike-Kulanihako'i-Maui  
Complex Area  
UH Maui College

Astronomy  
Ka'ū-Kea'au-Pāhoā  
Complex Area  
UH Institute for Astronomy

 Employer/Careers

 DOE Complex

 UH Campus



# ADVANCED MANUFACTURING & PRODUCTION TECHNOLOGY

- Workforce
  - Manufacturing and Robotics
- Careers
  - Aerospace
  - Maritime
- Map it Out
  - Plan and Timeline



# NATURAL ENERGY LABORATORY OF HAWAI‘I AUTHORITY



## Goal: Develop and Diversify Hawai‘i’s Economy

Provide resources and facilities to drive research, development, and commercialization of natural energy resources, ocean-related research, technology and innovation



## Goal: Expand Research and Development at HOST Park

Attract new uses of the natural resources including retail and commercial



## Goal: Grow Economy via HOST Park

Create revenues to continue supporting ocean research and technology development projects that support national and state interests, use facilities and infrastructure in Hawai‘i, and foster potential commercial development



## Goal: Advanced Energy Initiative

Renewable technologies and grid modernization to further develop HOST Park as an advanced energy technology testbed  
Serve as an “outdoor demonstration site” to test renewable energy technologies on the cusp of commercialization that can assist the State in meeting its renewable and decarbonization goals for 2045

# GOAL: DEVELOP AND DIVERSIFY HAWAI'I'S ECONOMY

## 2022 UHERO Economic Impact Analysis

- 2018 overall economic impact: \$103.6 million
- 2022 overall economic impact: \$145 million
  - 40% increase
  - \$7 million in tax revenue
  - 714 jobs



# GOAL: EXPAND RESEARCH AND DEVELOPMENT AT HOST PARK

13 new projects from  
2020 – 2023

76 acres (>10% of  
land at HOST Park)

2020 – 2023

- (5) new projects on 10 acres
- (4) new leases on 42 acres
- (4) leases (in concept) pending BOD approval

# GOAL: GROW ECONOMY VIA HOST PARK

## Infrastructure

- Development of (2) new roads to provide access to approx. 50-acres
  - \$17,932,000 in general obligation bonds
  - Zoning minimum lot size of 3-acres
  - Space for up to 15 additional businesses
- Development of an exploratory potable freshwater well
  - \$5,000,000 in general obligation bonds





# GOAL: ADVANCED ENERGY INITIATIVE

1

Expand efforts to assist the private sector in commercialization of offshore ocean thermal energy conversion (OTEC)

2

Establish an energy storage testbed

3

Develop an integrated energy district or microgrid

4

Work with HSEO, University of Hawai'i, and County of Hawai'i to develop a testbed for hydrogen technologies

5

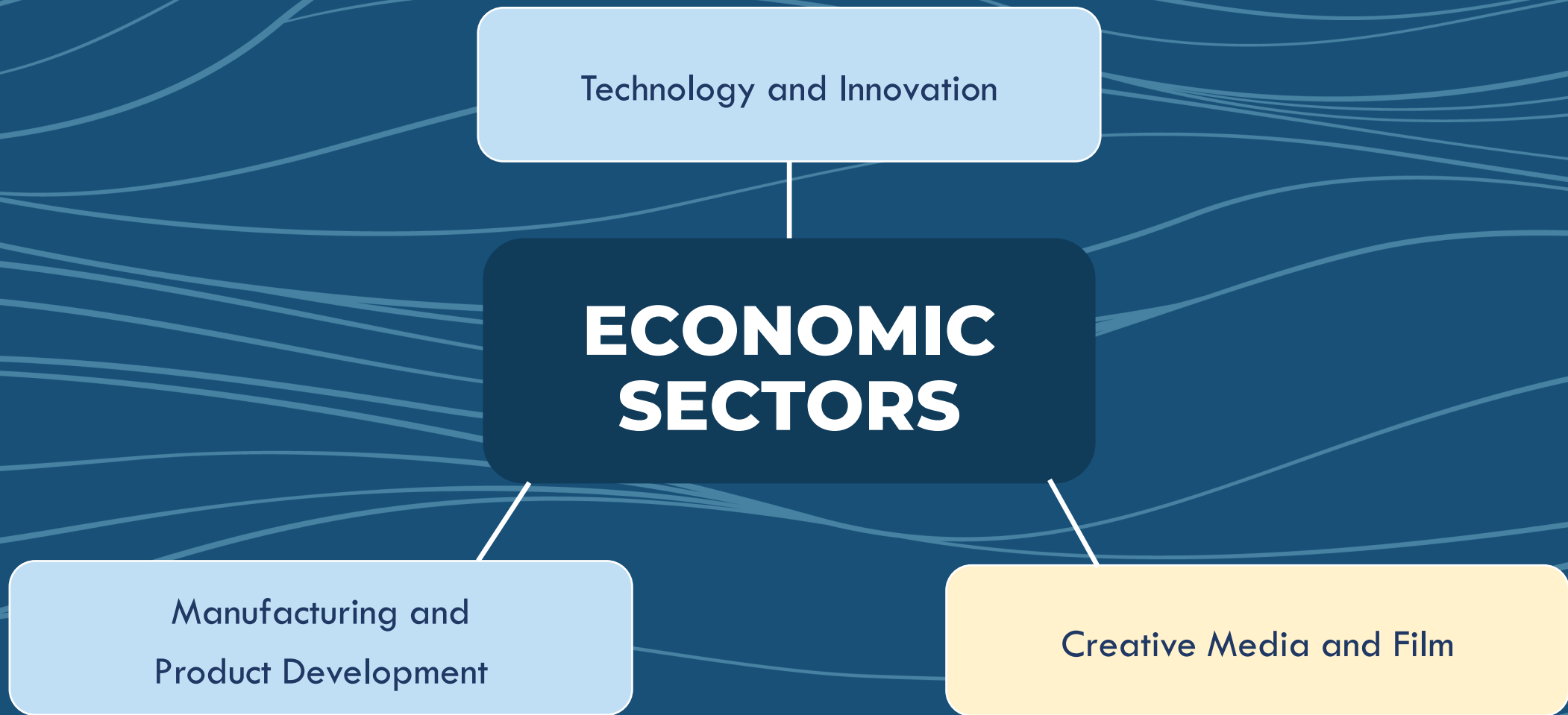
Expand relationships with the national laboratories and other key players in Hawai'i's energy field such as the HSEO, Hawai'i Natural Energy Institute (HNEI) and the utilities

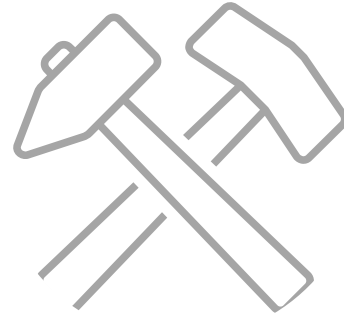
# HAWAI'I STATE ENERGY OFFICE

- State plan to achieve 2045 RPS
- State plan to achieve 2045 Net Zero
- Workforce Development Plan

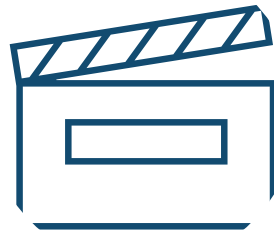


**HAWAI'I  
STATE  
ENERGY  
OFFICE**





# INDUSTRIES



Film and  
Creative  
Media



Music and  
Culture

# CREATIVE INDUSTRIES DIVISION



## Goal: Grow Hawai'i's Creative Economy

Expand entrepreneurial ecosystem for creatives, providing workforce development, infrastructure and facilities, access to capital



## Goal: Position the State to be a Globally Competitive Creative Hub of the Pacific

Target incentives to leverage local content of IP  
Studio and post-production facilities



## Goal: Create an Efficient Film Industry

Audits, modernize permitting, oversight through commission or advisory committee

# CREATIVE INDUSTRIES DIVISION



## Creative Media and Film

- Workforce Development
  - DOE – Searider Productions; Campbell
  - UH West O'ahu
  - Good Jobs HI (internships)
  - Creative Lab Hawai'i (career skills to job placement)
- Infrastructure/Facilities
  - Film Studio/Production Facilities
- Policy/Incentives
  - Infrastructure and Facilities Tax Credit
  - Film Tax Credit

## Performing Arts and Music

- Workforce Development
  - DOE – need to identify
  - UH Honolulu Community College
  - Good Jobs HI (internships)
  - Creative Lab Hawai'i (career skills to job placement)
- Infrastructure/Facilities
  - Manufacturing Facility
- Policy/Incentives
  - Align HTDC, FTZ, and BSD programs

Parcel 10  
TMK: 9-1-013:097  
Owner: Hunt Communities Hawaii  
Size: 3.81 acres  
Total Assessed Value: \$7,145,800  
Land Value: \$6,238,600

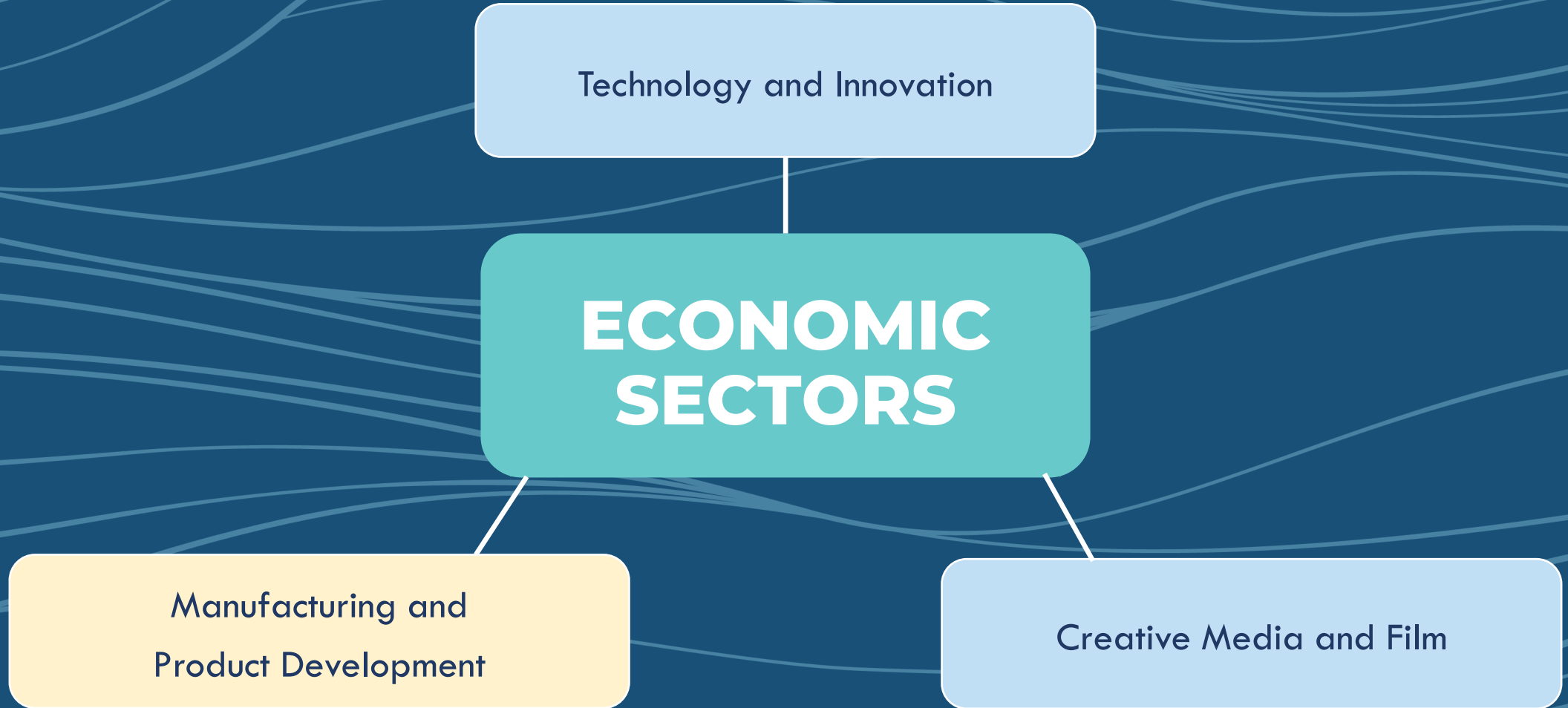
TMK 9-1-013:048  
Department of Hawaiian Home Lands  
9.72 acres  
Total Assessed Value: \$14,928,100

9-1-013:097

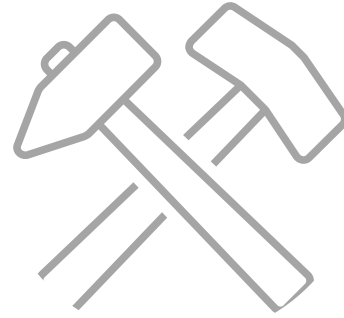
9-1-013:110

TMK: 9-1-013:110  
Total Assessed Value: \$33,493,100

# Infrastructure and Facilities to Support Economic Growth



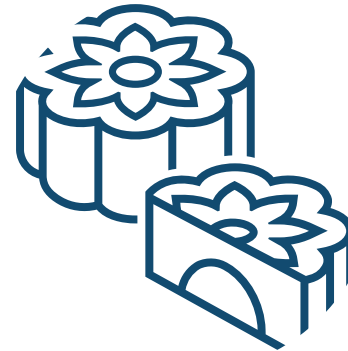




# INDUSTRIES



Fashion  
Manufacturing



Value-Add Product  
Manufacturing

# AGRIBUSINESS DEVELOPMENT CORPORATION

## Goal: Develop and Increase Exports

- Infrastructure and development of facilities to drive research, product development, commercialization of value-add products, market research, and quality improvement

## Goal: Increase Local Food Production

- Land use planning, water and irrigation management, warehouses for packaging and processing, dry and cold storage facilities, technology adoption, and resources to scale-up

## Goal: Create an Efficient Agribusiness Industry

- Value-add, supply chain optimization, financial support, policy reform, technology integration, collaboration and networking

# **GOAL: DEVELOP AND INCREASE EXPORTS**

- **RFP for Building Upgrade & Purchase of HPP machine**
- **Plan and design for infrastructure for Food & Product Innovation Center Central O'ahu**

# **GOAL: INCREASE LOCAL FOOD PRODUCTION**

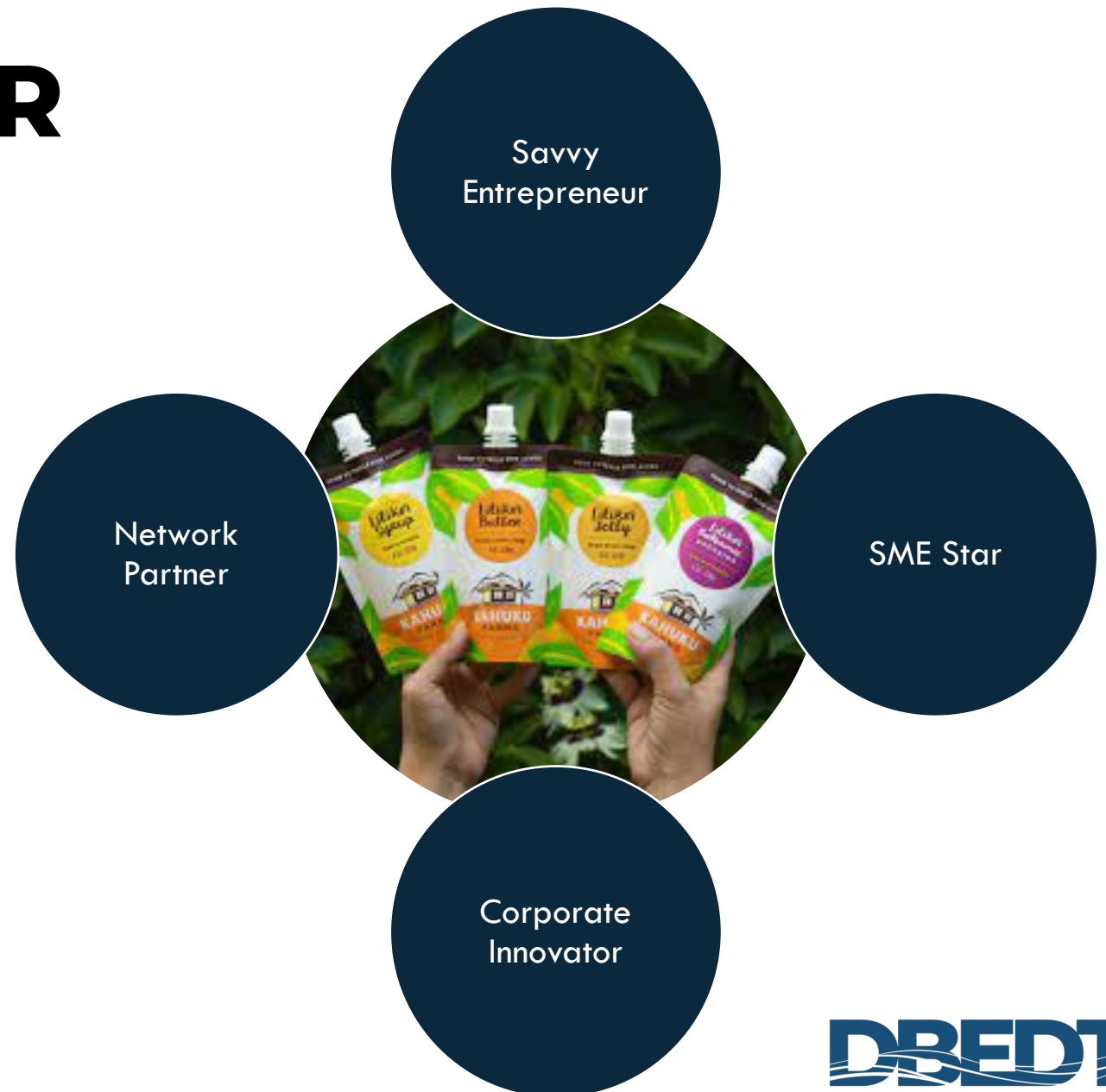
- **MOU with NELHA and HTDC to scale-up aquaculture industry**
- **Developing value-add and processing plan for Kekaha**
- **Developing strategy for Hawai'i Island and Maui**
- **Planning with DLNR and DOA on development of Small Animal Slaughterhouse**
- **Released the balance off land portfolio**
- **Repaired the Menehune Ditch**
- **Repaired Waiāhole Irrigation System**
- **Engaged Stakeholders Statewide**

# **GOAL: CREATE AN EFFICIENT AGRIBUSINESS INDUSTRY**

- **Addressing audit findings**
- **Reducing inputs/feed mill**
- **Lowering energy costs via hydropower/microgrid**
- **Layering incentives**
- **Building capacity**

# CATALYST FOR GROWTH

- Government supported network of innovation and production facilities
- From research and development to manufacturing
- Catalyst for small business and product growth
- Help with innovation, scaling up and commercializing products





**STARTUP**



**GROWTH**



**COMMERCIAL**



**EXPORT**



## **Infrastructure and Facilities to Support Economic Growth**



# Infrastructure and Facilities to Support Economic Growth



**UHCDC and Research Team  
Month: 1**

Create visuals flowcharts  
Identify Maui leads and POCs

**Outreach and Site Visits  
Month: 2**

Understand food and product  
economy  
Asset mapping  
Community engagement

**Workshops  
Month: 3 – 6**

Develop presentation materials  
Host talk-story sessions  
Develop Project Advisory/Working  
Group  
Site visits

**Research and Engagement  
Month: 6 – 8**

Revise and update presentation  
materials  
Complete talk-story sessions

**Consultation  
Month: 9**

Synthesize community feedback  
towards site selection  
Convene experts/consultants to  
advise on site selection and  
conceptual plans

**Conceptual Planning Framework  
Month: 10**

Focus Group charrette

**Proof of Concept Plan and Design  
Month: 11**

Preliminary POC and cost estimates  
Public Share-Out Session

**Final Public Share-Out  
Month: 12**

Presentation  
Final deliverables to support CIP  
request for construction



# HOUSING

# OFFICE OF PLANNING AND SUSTAINABLE DEVELOPMENT

Goal: Advance Delivery of TOD Projects and Infrastructure

- Promote co-location and mixed-use facilities with affordable housing in areas/TOD communities served by transit
- Seed planning projects that foster multi-agency collaboration and multiple objectives to achieve better TOD outcomes/facilities/communities
- De-risk innovative projects typically beyond scope of agency projects



## GOAL

10,000 units by 2025



## PLAN

Office of Planning and Sustainable Development

Transit Oriented Development Council



## IMPLEMENTATION

Hawai'i Housing Finance & Development Corporation

Hawai'i Community Development Authority

Policy (Legislation)

# Office of Planning and Sustainable Development – TOD Planning FY24 Projects

## County of Hawai'i: \$400,000

- Office of Housing and Community Development
- Kukuiola Village 9 Permanent Supportive Housing, Kailua-Kona
- 160 permanent supportive housing units (60% and below AMI) and support facilities
- Funding for site planning, concept layouts, architectural designs that promote walkability and connectivity to nearby transit hub and West Hawai'i Civic Center

## City and County of Honolulu: \$250,000

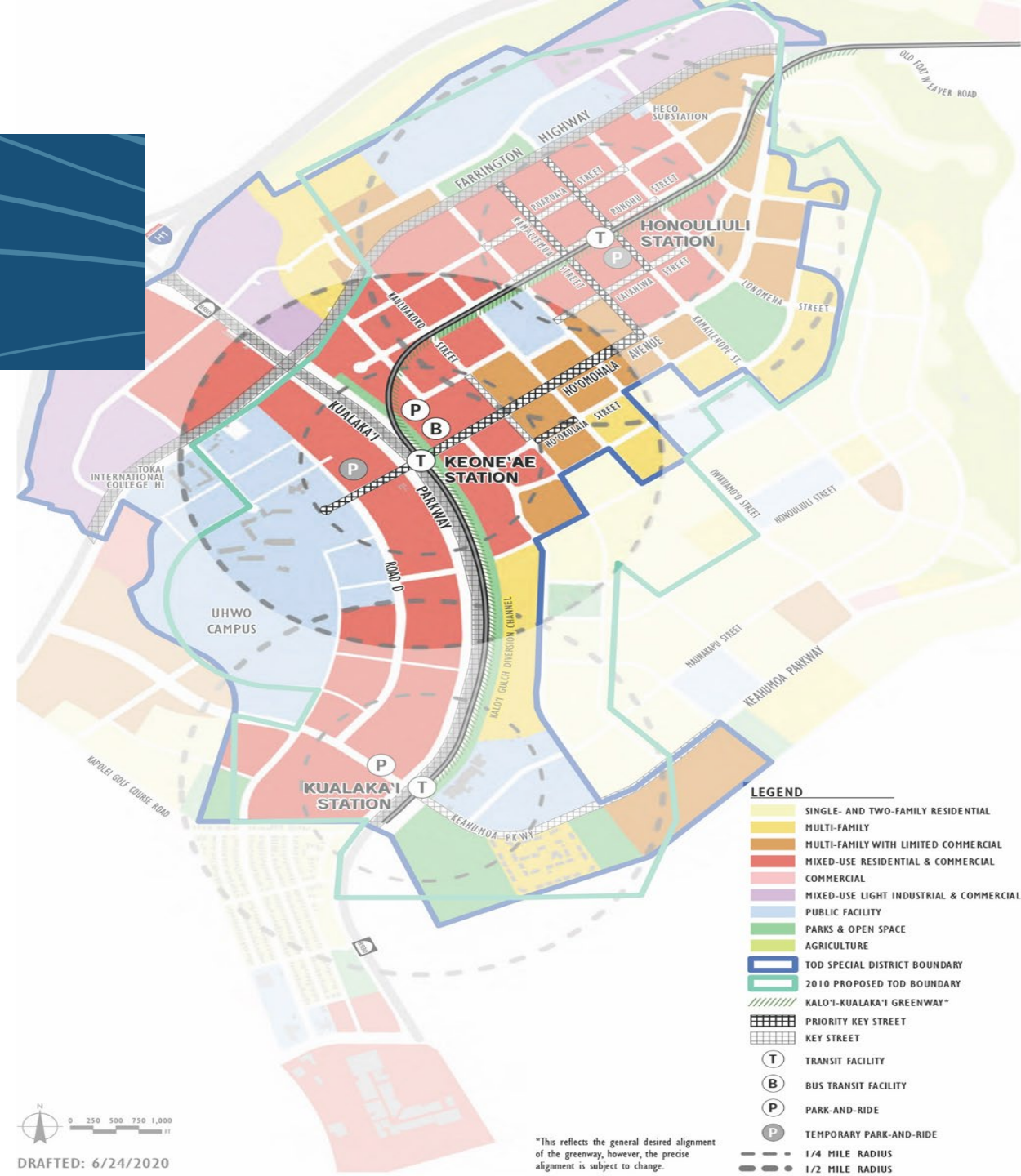
- HPHA Hale Laulima, Pearl City (HPHA Ka Lei Momi Site - part of 10,000-unit initiative)
- Redevelopment of 36-unit project into denser mixed-income housing (more units)
- Funding for conceptual development and site improvement plans to promote walkability and connectivity to surrounding civic facilities, retail, and Waiawa rail station

## County of Kaua'i: \$350,000

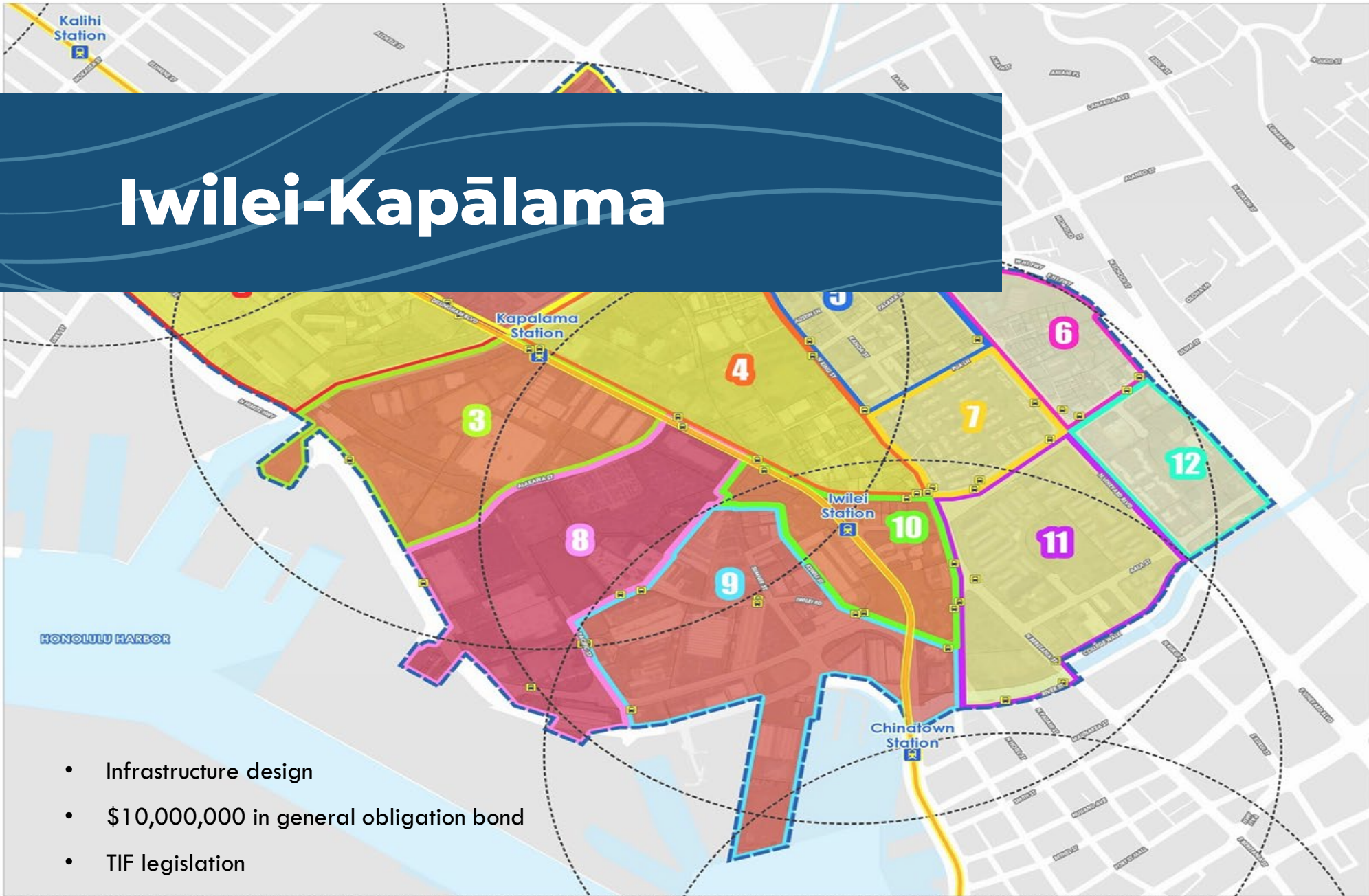
- HPHA Hale Nana Kai O Kea Redevelopment, Kapa'a, Kaua'i (HPHA Ka Lei Momi Alternate Site)
- Redevelopment of 38-unit project into denser mixed-income housing (more units)
- Funding for conceptual development and site improvement plans to better integrate redevelopment with implementation of recently-completed TOD master plan for the adjacent Samuel Mahelona Memorial Hospital campus

# UH West O'ahu

- On-site infrastructure
- Phase 2
- \$25,000,000 in general obligation bond
- TIF legislation



# Iwilei-Kapālama



**LEGEND**

**Public Transportation**

- Bus Stops
- Rail Station
- Rail Line
- 0.5-mile Radius from Stations

**Blocks**

|   |   |    |
|---|---|----|
| 1 | 5 | 9  |
| 2 | 6 | 10 |
| 3 | 7 | 11 |
| 4 | 8 | 12 |

**Potential Residential Unit Development**  
(\* note: assume 1,000 SF per unit)

- 0 - 1,000
- 1,000 - 2,000
- 2,000 - 3,000
- 3,000 - 4,000
- 4,000 - 5,000
- 5,000 - 6,000
- > 6,000

- Infrastructure design
- \$10,000,000 in general obligation bond
- TIF legislation

**DRAFT 6/14/2016**  
**Iwilei/Kapālama**  
**Residential**  
**TOD Plan**  
**Density Potential**

Department of Planning and Permitting  
NORTH  
LINEAR SCALE (FEET)  
0 350 700

Island of O'ahu  
PBR HAWAII ASSOCIATES, INC.

Disclaimer: This Graphic has been prepared for general planning purposes only and should not be used for boundary interpretations or other spatial analysis. Source: Analysis based on data provided by DYETT & BHATIA for TOD Development Assumptions. File: Q:\Oahu\DP&P TOD Iwilei-Kapalama\GIS\Project\TOD Iwilei-Kapalama Density Potential Residential 24x36.mxd



A person is seen from behind, holding a bright yellow umbrella. They are standing on a wooden pier or walkway that recedes into the distance. The sky is dark and overcast, with rain falling heavily, creating a blurred, streaky effect. The overall mood is somber and protective.

# SHORT-TERM

ALICE: Asset Limited, Income Constrained, Employed — households with income above the FPL, but below the basic cost of living

# ALICE Population

HSEO's support of ALICE communities through the HOMES and HEAR programs HSEO will administer under the Inflation Reduction Act (IRA).

- HSEO is the State of Hawai'i lead on Home Efficiency Rebates (HOMES) and Home Electrification and Appliance Rebate (HEAR) programs under Inflation Reduction Act (IRA)
- \$68 million in rebates will be available primarily to Low- and Moderate-Income recipients starting in the 3rd quarter of 2024
- Under the HOMES program in IRA section 50121 and home energy contractor training in IRA section 50123. HSEO intends to:
  - Launch point-of-sale rebates for limited products, specifically ENERGY STAR certified heat pump water heaters and ENERGY STAR recognized induction cooktops
  - Deliver coordinated HOMES and HEAR incentives for a variety of energy savings appliances and home electrification options over a six-year period
  - Conduct outreach in each county and tailored outreach for hard-to-reach (HTR) customers, such as disadvantaged community (DAC) and Native Hawaiian homestead associations
  - Conduct program evaluation and consumer protection oversight

# ALICE Population

HBDEO's support is to bring digital equity to the state. Through federal grants, HBDEO will focus on specific groups in which the covered area includes much of the ALICE population.

Recognizing that there is a digital divide, HBDEO is working to bridge and close the gap by:

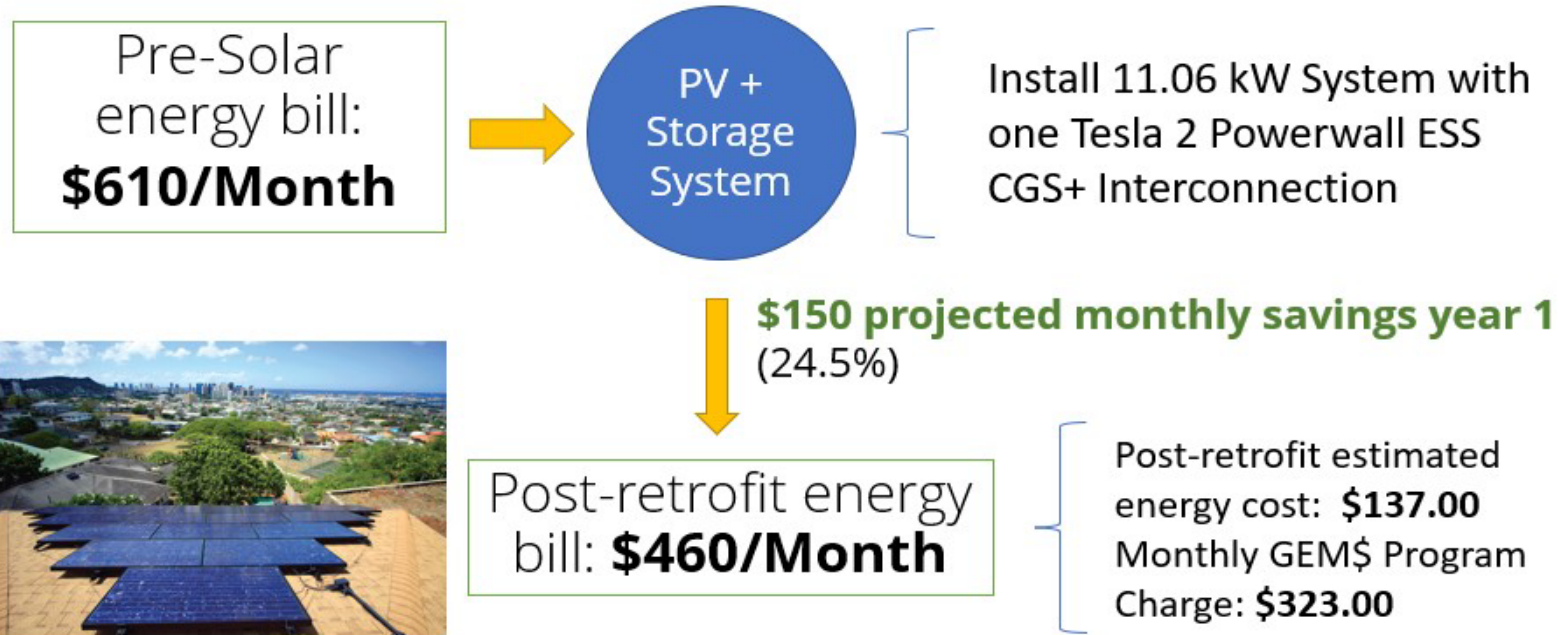
- Affordable Connectivity Program – provides discount on internet service to income qualified household (primarily the lower income end of the ALICE households)
  - \$30 discount for households
  - \$75 discount for Hawaiian Home Lands beneficiary
- Future federal funding in digital equity will allow HBDEO to establish programs to provide free devices (PCs and laptops) to coincide with digital literacy training
- Working to establish a grant program that will provide funding for organizations to develop public telehealth capacity, affordable internet connectivity, Community Anchor Institutions, digital literacy training, and the digital navigator program

# ALICE Population

## HGIA's support of ALICE communities:

- Facilitating Inclusivity and Accessibility
  - Green Energy Money Saver (GEM\$) On-Bill Financing Program includes the elimination of all credit barriers on July 1, 2023
- Through Federal Funds expected from the EPA, HGIA will be partnering with nonprofits to provide financial education
- Bridging Access to Capital Challenges for Businesses and Nonprofits
  - HI-CAP collateral support
  - CDFI loan pool and loans programs
  - C-PACER financing program
- Federal Funds
  - SSBCI HI-CAP Program
    - \$40.0 million in funds (HTDC will get \$20.0 million)
  - EPA's Greenhouse Gas Reduction Fund's Solar for All Program

# Utility bill: Before & After Solar



Estimated Energy Savings: **\$39,342**  
(over 20-year system lifetime)  
Estimated Energy Savings & Tax Credit Benefits: **\$64,784**



**MAHALO**