

Indigenizing Economics



Launa



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- **Introduction** to the Office of Indigenous Knowledge and Innovation (OIKI)
- **Context** of the ChangeHI EPSCOR Project
- **Overview** of the Indigenous Data Hubs (IDH) Practice
- **Closing Reflections**
- **Thoughts and Questions**



Office of
Indigenous Knowledge & Innovation
UNIVERSITY OF HAWAI'I SYSTEM

The **University of Hawai'i (UH) Office of Indigenous Knowledge and Innovation (OIKI)** serves as a catalyst, convener, and pathway for UH students, faculty, and regional communities of practice to [utilize ancestral sciences and technologies in ways that optimize contemporary innovation and restore Hawai'i biosystems.](#)

Through facilitating equitable regeneration, we help catalyze social, ecological, and economic abundance at all levels on a local and global scale.

The Pewa Framework



Equity: *A willingness to understanding the nature of the fracture;*

A willingness to acknowledge the history of dispossession, and a willingness to affirm the value of what was lost

Reciprocity: *A willingness build interventions that address the reason for the fracture, and are built to hold each side equally strong;*

to ID interventions that recognize historical injustice and ancestral efficacy and then create approaches that work on investments into restorative interventions.

Transparency: *the willingness to be clear and honest in intent, and to operate in a transparent way;*

Pewa are emphasized on the 'umeke, not hidden. They show that the carrier is now strong. We do not hide the fact that there was a fracture, but honor our work to mend it. And now we can have abundance.

Pewa - *n. rectangular patch or wedge used for mending bowls, perhaps so called because of a resemblance to a fishtail.*

Regional Governance
Ecologic,
Economic and
Spiritual
systems
integrated.

Community Agency
Access to
quality food,
sustainable
livelihoods, and
direct influence
in regional

Collective
Social Well
Being

Ecology
managed as
economy

**Integrated
Bio-systems
Management**

Individual
Integrated In
Functioning
System

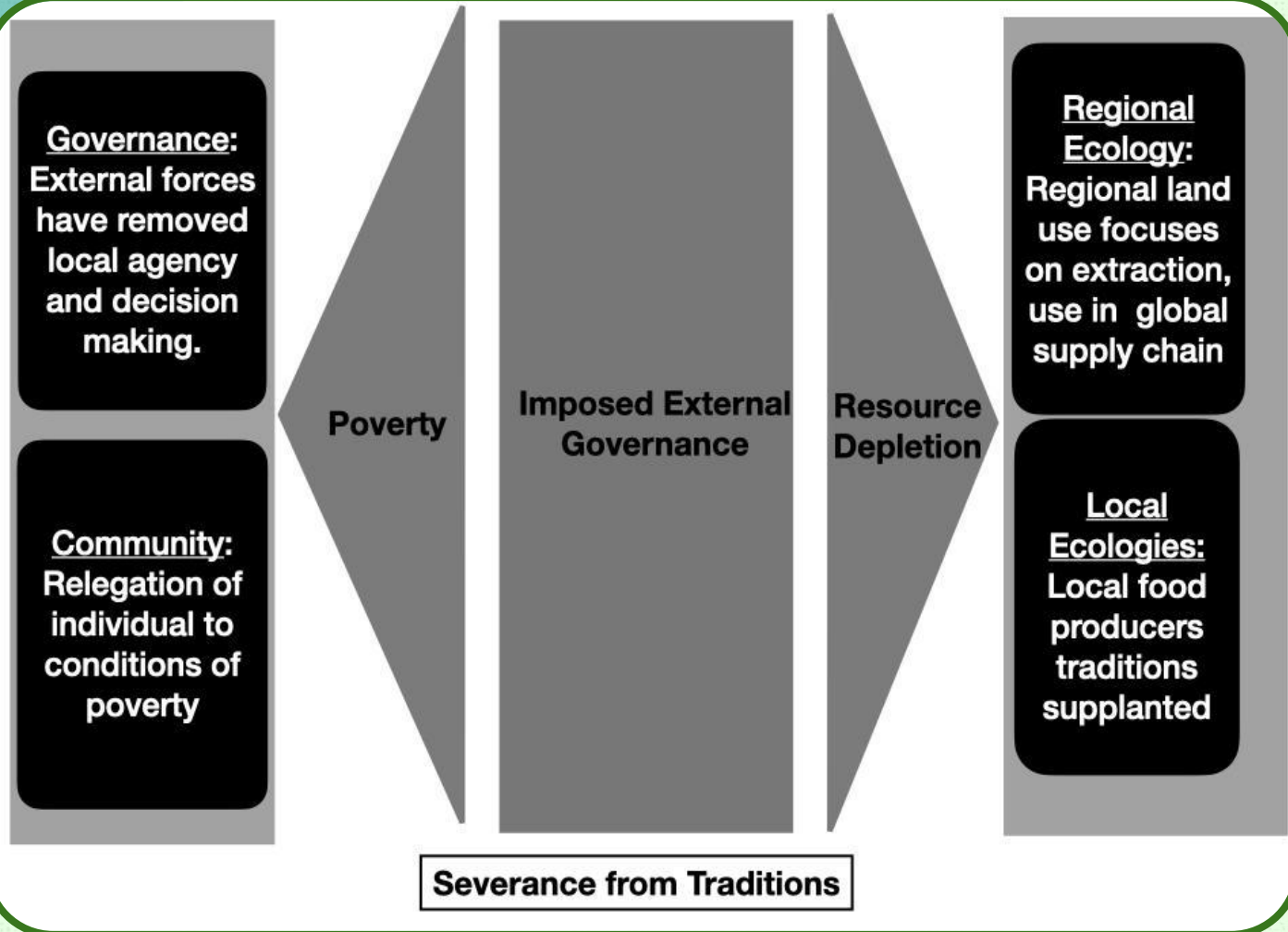
Regenerative
Food
Production

Regional Ecology:
Regenerative
land use is
key directive
guiding
society.

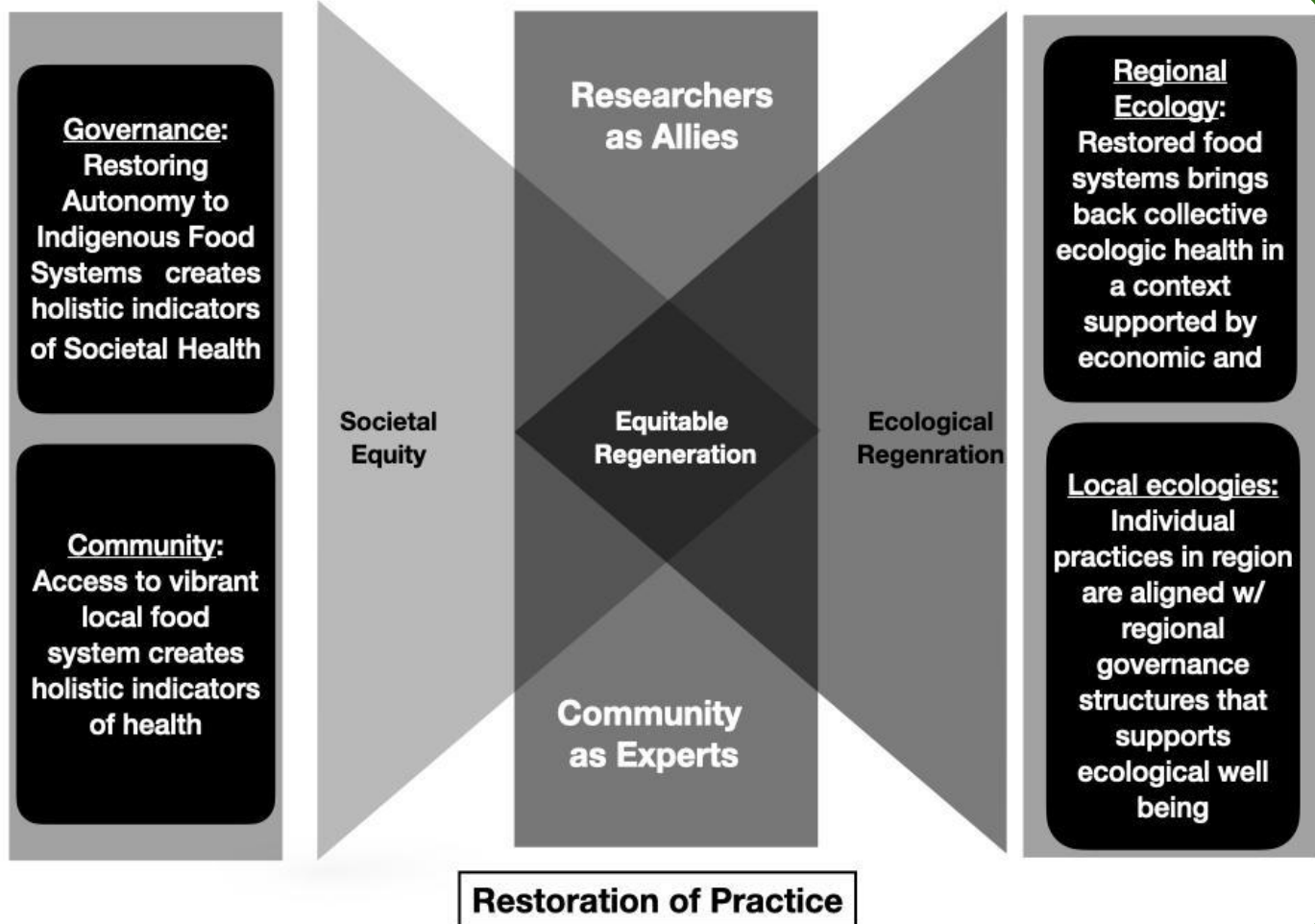
Local Ecologies:
Each parcel
managed in
context of its
relationship
with whole
bio-systems

Original Context of Community Health

Hō'ike



Hō'ike



Our “*How Will We Know*” if this Office is working?

- **At the Community Level:** *investment* is being driven to community organizations.
- **At the University Level:** *research* is co-designed with community and supports ancestral practices done in contemporary application.
- **At the Government Level:** Indigenous communities are *repositioned* as spaces of innovation and their practices and people are thriving.

Articulating a process of Indigenization

Step 1: Retranslate

Step 2: Reframe

Step 3: Re-Enter

Step 4: Re-Establish

Step 1: Retranslate

To move from
“Hawaiian Culture”

to

“Ancestral Sciences and Technologies
of Integrated Bio-systems
Management”

Step 1: Retranslate

Policy

Bio-centric governance
and sciences that
positioned economy as
ecology



Step 1: Retranslate

Practice

Family unit as mode of production: educator, employer, spiritual leader.

Landscape as sentient ancestor



Step 1: Retranslate

Problem Statement:

Ecological and societal degradation a function of the severance of symbiosis.

Working premise:

Restoration as the intervention



Step 2: Reframe

Provide frameworks to move from
Decolonization
to
Indigenization

Step 2: Reframe

A Framework for
Indigenization

Triple Piko Analysis

Piko
'Ō

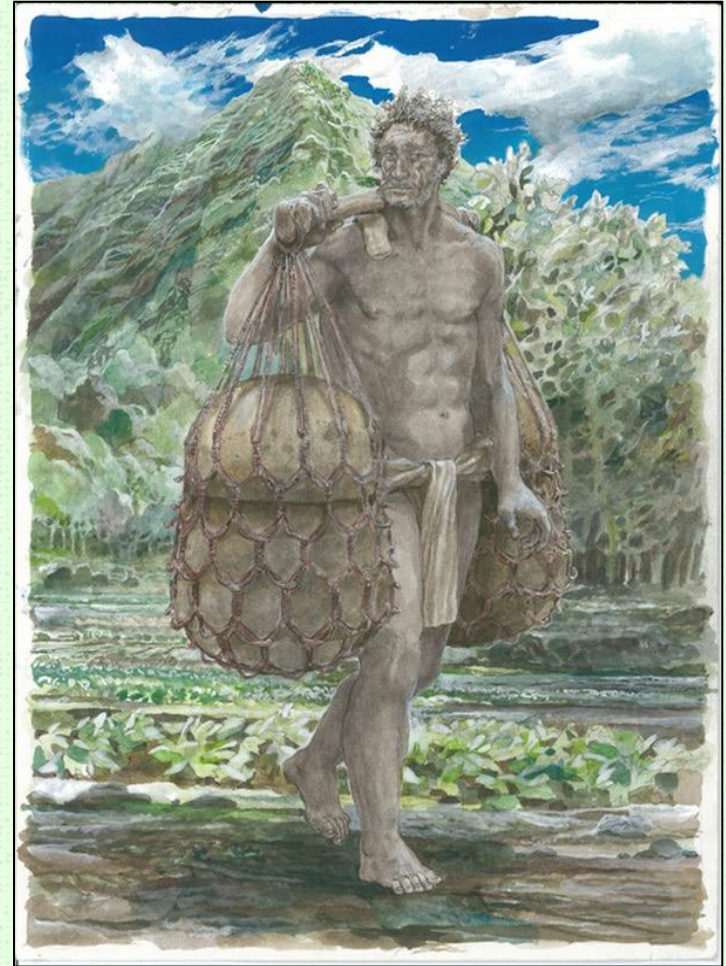
Piko
'Ī

Piko
'Ā

Step 2: Reframe

Triple Piko Analysis

Piko 'Ō:
Align with
Ancestral
Prerogatives



Step 2: Reframe

Triple Piko Analysis

Piko 'Ī:
Empower
Contemporary
Generations



Step 2: Reframe

Triple Piko Analysis

Piko 'Ā:
Provide a
Foundation for
Future
Abundance



Step 3: Re-Enter

Re-Entering Into Contemporary Practices

From Grants and Business plans
to

‘Auwai Articulations

Step 3: Re-Enter

Social Enterprise That Produces Contemporary & Ancestral Outcomes

ELDERS

Generate revenue via

Enterprise while being
empowered by **Social** mission

PROGRAMMERS

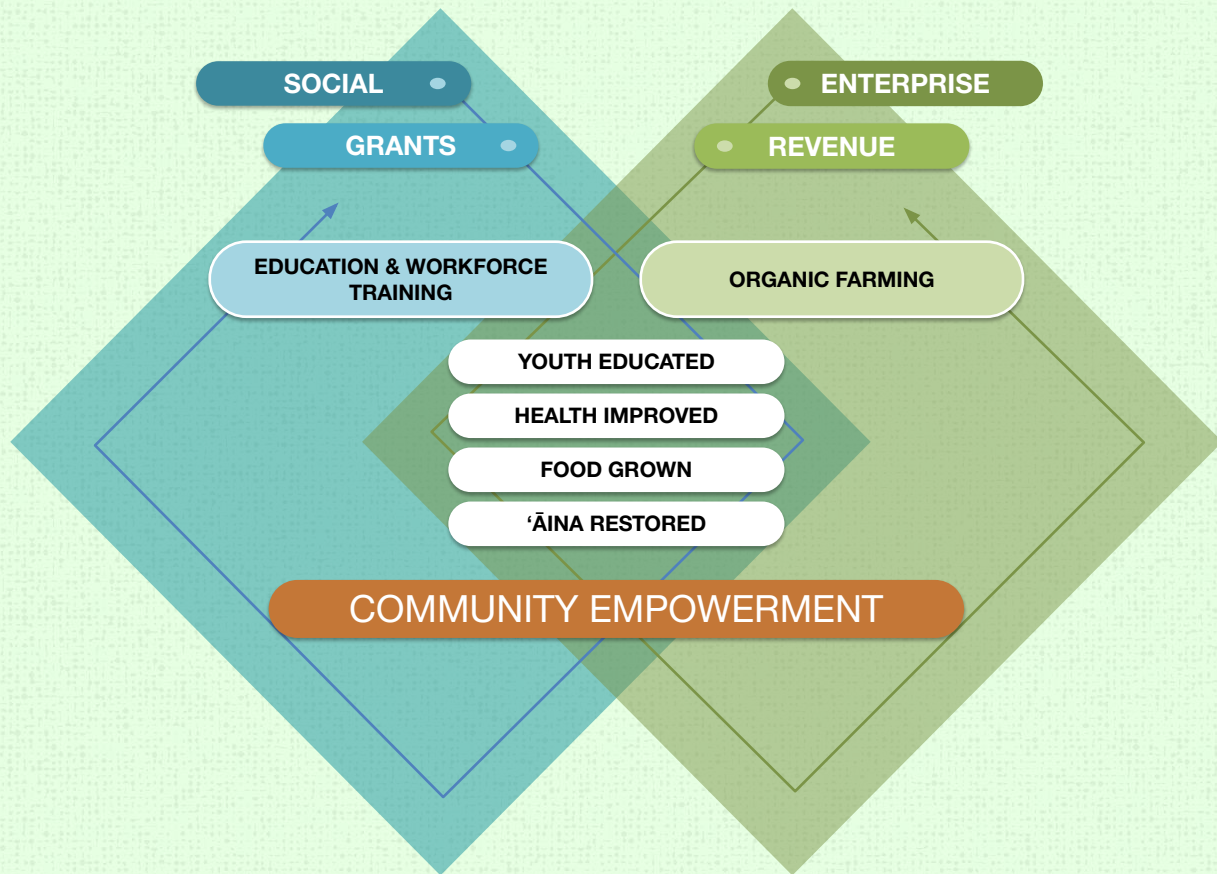
Generate revenue via

Enterprise while being
empowered by **Social** mission

SWEAT EQUITY SCHOLARS

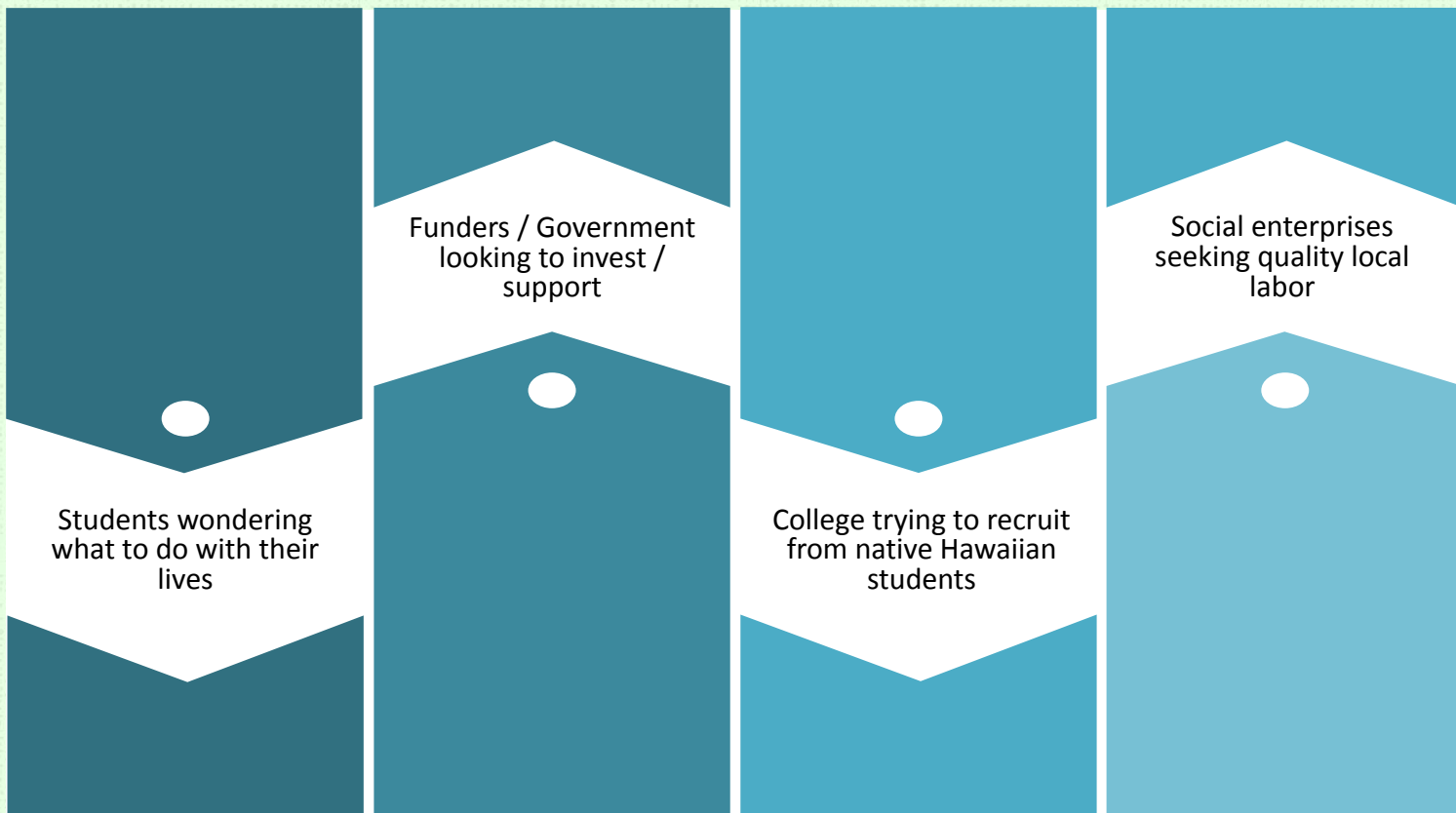
Generate revenue via

Enterprise while being
empowered by **Social** mission



Step 3: Re-Enter

OUR ALIGNMENT: FROM SILOED...



Step 3: Re-Enter

OUR ALIGNMENT: ...TO ALIGNED

Student preparation with family as partner, teachers as mentors, and ancestry as asset.

Post Secondary institutions work with schools and Ag sector to ensure matriculation into and out of college.

Workforce provides internships, on-campus entrepreneurial support to build seamless entry points into sector.

Students, Family, Community & Ancestry align to restore our community

COLLEGE

COMMUNITY

SCHOOLS

WORKFORCE

Family education
Community input
Internships
Teacher P.D.

ACTIONS

Internships
In-school engagement
Advising/ recruitment

ACTIONS

Internships
Technical support

ACTIONS



Step 4: Re-Establish

Re-establish our Agency

Hitting their metrics using our model.

Presenting community derived metrics of
agency/resilience/abundance

Step 4: Re-Establish

YOUTH OUTCOMES

MA'O Intern College Degree Attainment

MA'O interns graduate at more than double the rate of their peers at Leeward Community College, while Native Hawaiian interns triple their chances of achieving their degree.



108

Associate's Degrees

25

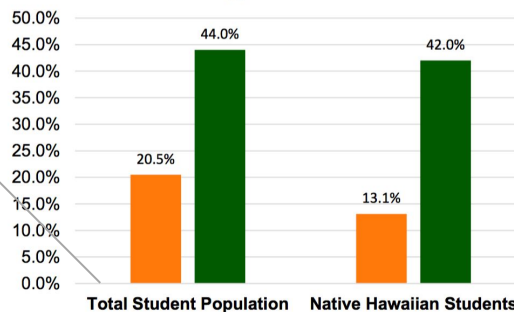
Bachelor's Degrees

1

Master's Degree

Degrees attained by MA'O interns during and after their participation in the Youth Leadership Training (YLT) program.

Associate Degree Graduation Rate



Leeward Community College 2015

MA'O Youth Leadership Training (YLT) interns - cumulative

Step 4: Re-Establish

HEALTH OUTCOMES



Mauli Ola Study

Investigating the Gut Microbiome in Social Networks

- Addressing increased prevalence of chronic diseases among Hawai'i's unique populations, including Native Hawaiians and Pacific Islanders.
- Examining how social and economic networks influence individuals' choices and behaviors, leading to (un)healthy lifestyles.
- Exploring how MA'O, a community program not specifically designed around health, impacts the health of individuals, especially in the reduction of obesity and other cardiometabolic disorders.

120

Participants in first study cohort, all interns in MA'O Youth Leadership Training (YLT) program. Future study cohorts include additional interns and members of interns' social networks.

70%

Study cohort of Native Hawaiian ancestry

26

Median age of study cohort

50%

Reduction in lifetime risk of contracting T2 diabetes; measured after one year participation in the MA'O YLT internship program.

\$150,000

Reduced annual health care costs associated with diabetes alone, per individual who avoids contracting T2 diabetes.

<http://mauiolanetwork.com>

Measuring the Health of Our Community Using Social Networks – preliminary research results

Step 4: Re-Establish

Ka'ōnohi Farms

Hawaiian Cultural Practices Thriving
in an Urban Ahupua'a

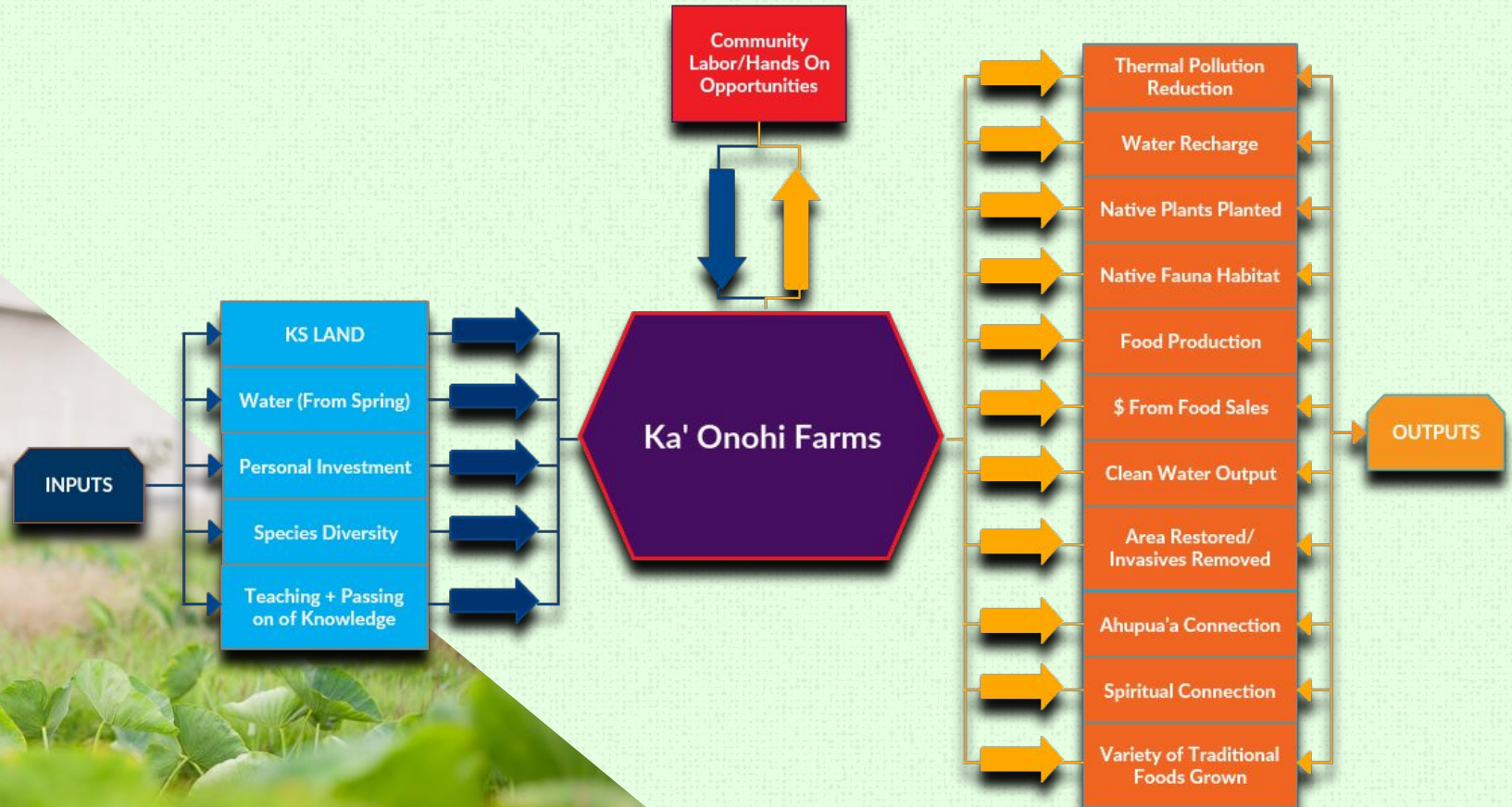


Step 4: Re-Establish

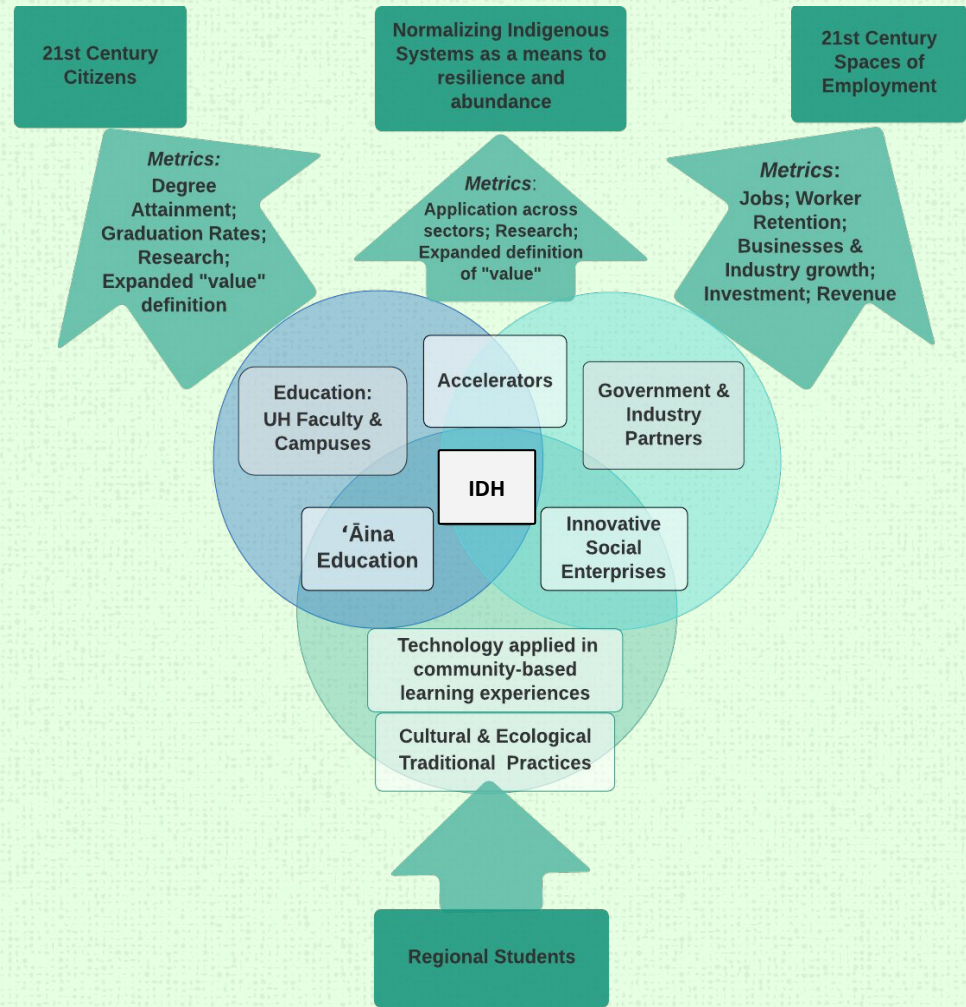
The Stakeholders



Step 4: Re-Establish



Indigenous Data Hubs (IDH)



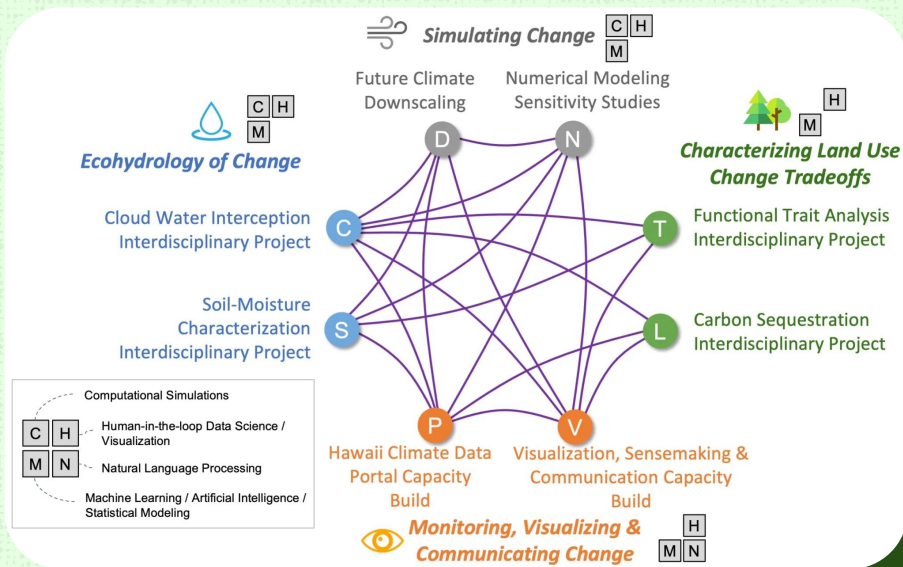


Create(x)

is a living laboratory for students to develop and showcase their narrative works at the intersection of creative media, computation, culture, art and science @ the UH West O'ahu.

It is co-led by Dr. Jason Leigh, and Kari Noe of the [Laboratory for Advanced Visualization and Applications \(LAVA\)](#), and is jointly funded by the [UH Academy for Creative Media System](#), and the [National Science Foundation](#).





Project Goal

Harness the data revolution to confront climate change and support the state's transition to a digitized smart economy.

Seed Funding

Responds to two priorities identified in Hawai'i's Statewide Science and Technology Plan:

Data science innovation and technology transfer and

Native Hawaiian and Pacific Islander inclusion and equity in the Hawai'i data science endeavor.



LCC IDH

Goal: Developing an Create(X) type facility at LCC

- Year long planning process
 - Engage LCC admin to align with strategic plan
 - Engage faculty in utilizing the hub for curriculum/research
 - Identify space for IDH site
 - Developing a Fellows program
 - 5 students working on developing data visualization projects
 - Cohort Mentors: Kūha`o Zane, Solomon Enos, Mikiala Lidstone



UNIVERSITY of HAWAII®

LEEWARD
COMMUNITY COLLEGE

Other future sites...

Kaua'i and 'Iole (Island of Hawai'i)

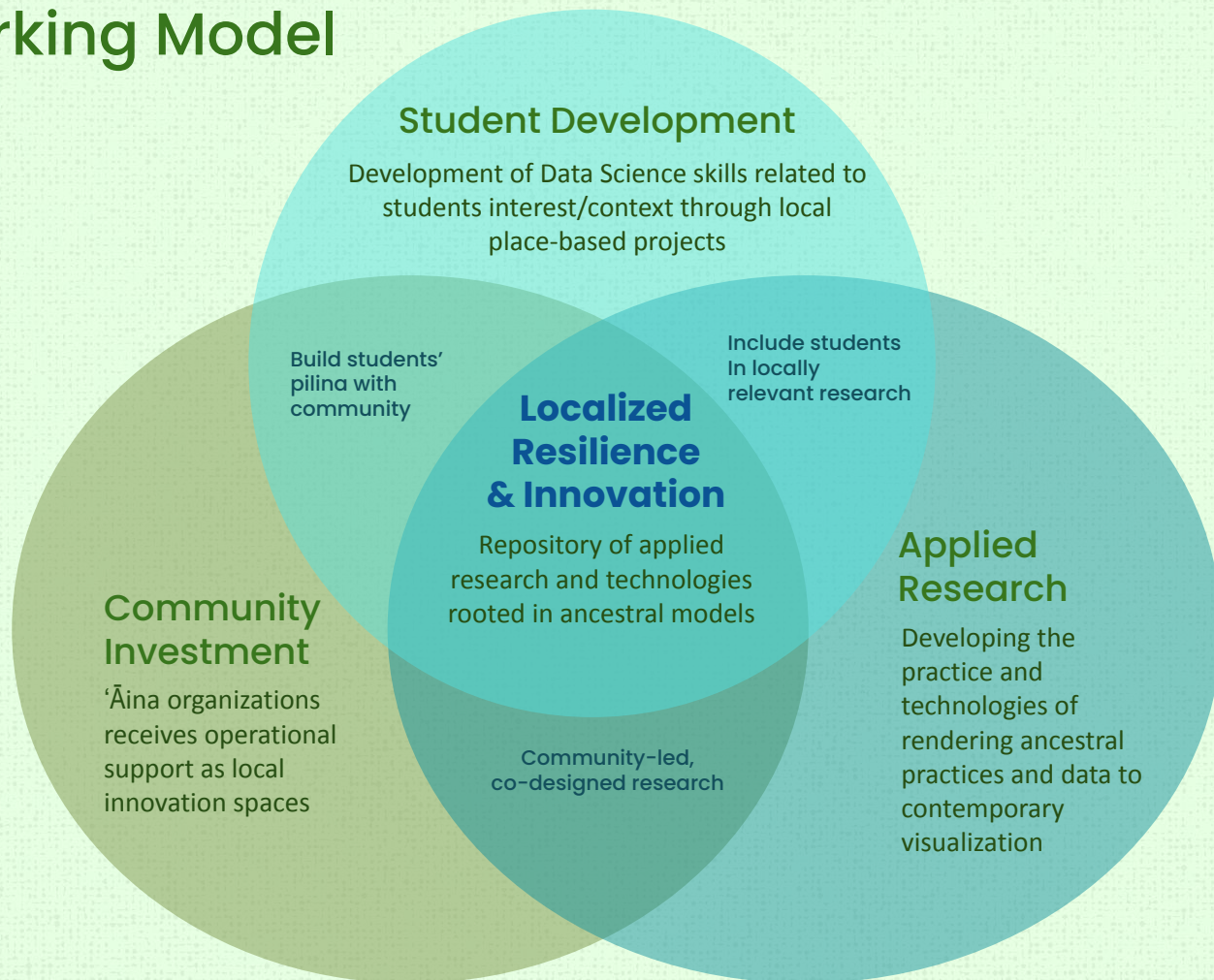
- Going through the same development process
- Developing practice of how to create network of remote sites
- 'Iole is DOE funded



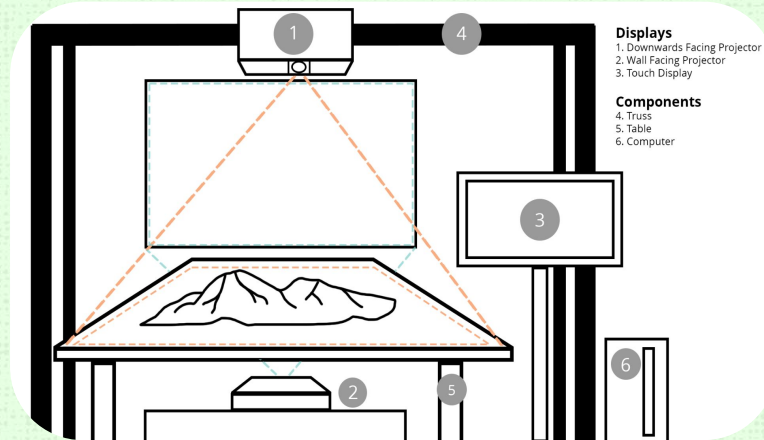
Partnership for Pu'uloa

- Funding from a NOAA earmark, in partnership with **Hui o Ho`ohonua**
- Summer internship for incoming and first year students with strong ties to the 'Ewa Moku in:
 - Biocultural restoration
 - Self-actualization and restoration of 'āina as shared values
 - Data visualization
 - Building connections with other orgs/people doing the conservation work in their community

IDH Working Model

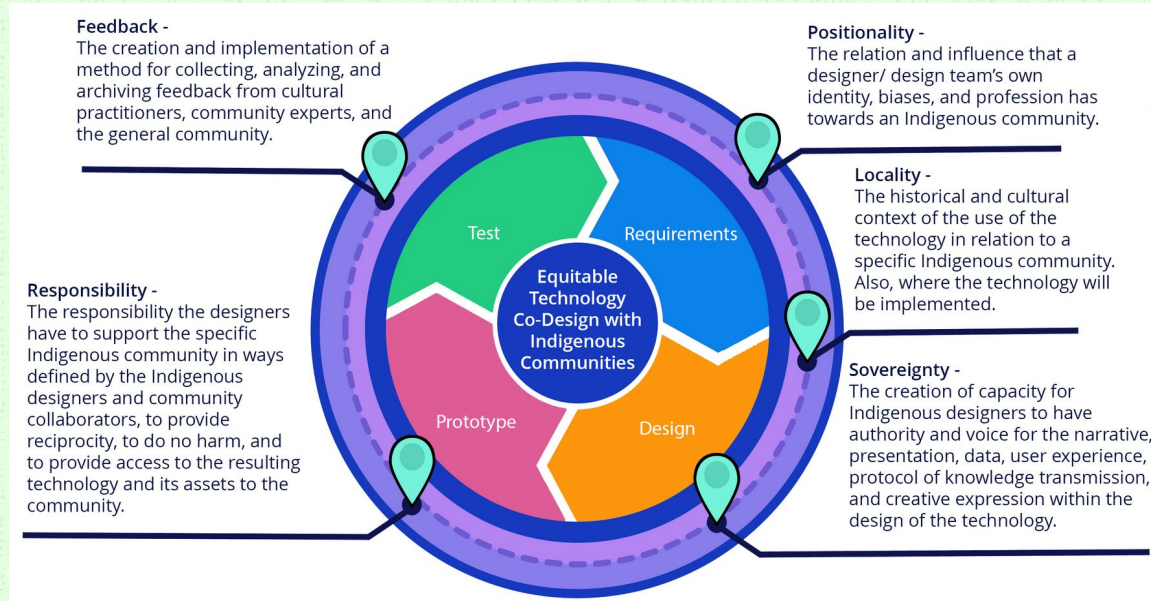


Makawalu Visualization Environment



- Descended from the ProjecTable project*
- Software to allow for the authoring of immersive visualization using the ProjecTable
- Back-end created in the Unity Game Engine (to align with students' curriculum)
- Research intends to produce a holistic design practice for co-designing immersive visualization technology with Indigenous communities

Developing the Design Practice



This presentation engages with these generalized guidelines of co-design to present and discuss a method of developing customized practice to collaborate with specific Indigenous communities. We showcase the framework with our experience of developing a design practice for the Office of Indigenous Knowledge and Innovation's work.

The most ancient and powerful technology is the technology of community



No'ono'o

