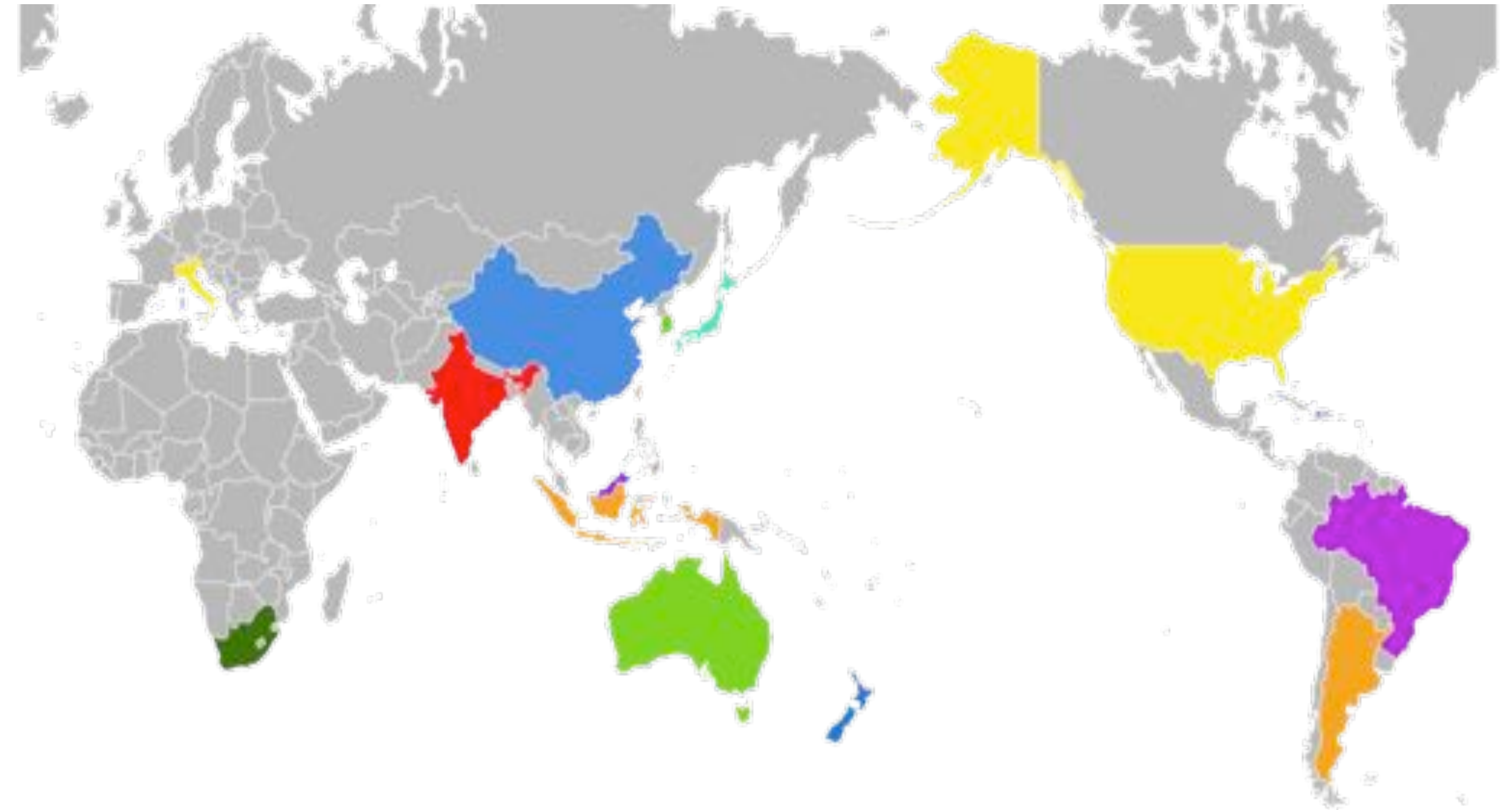
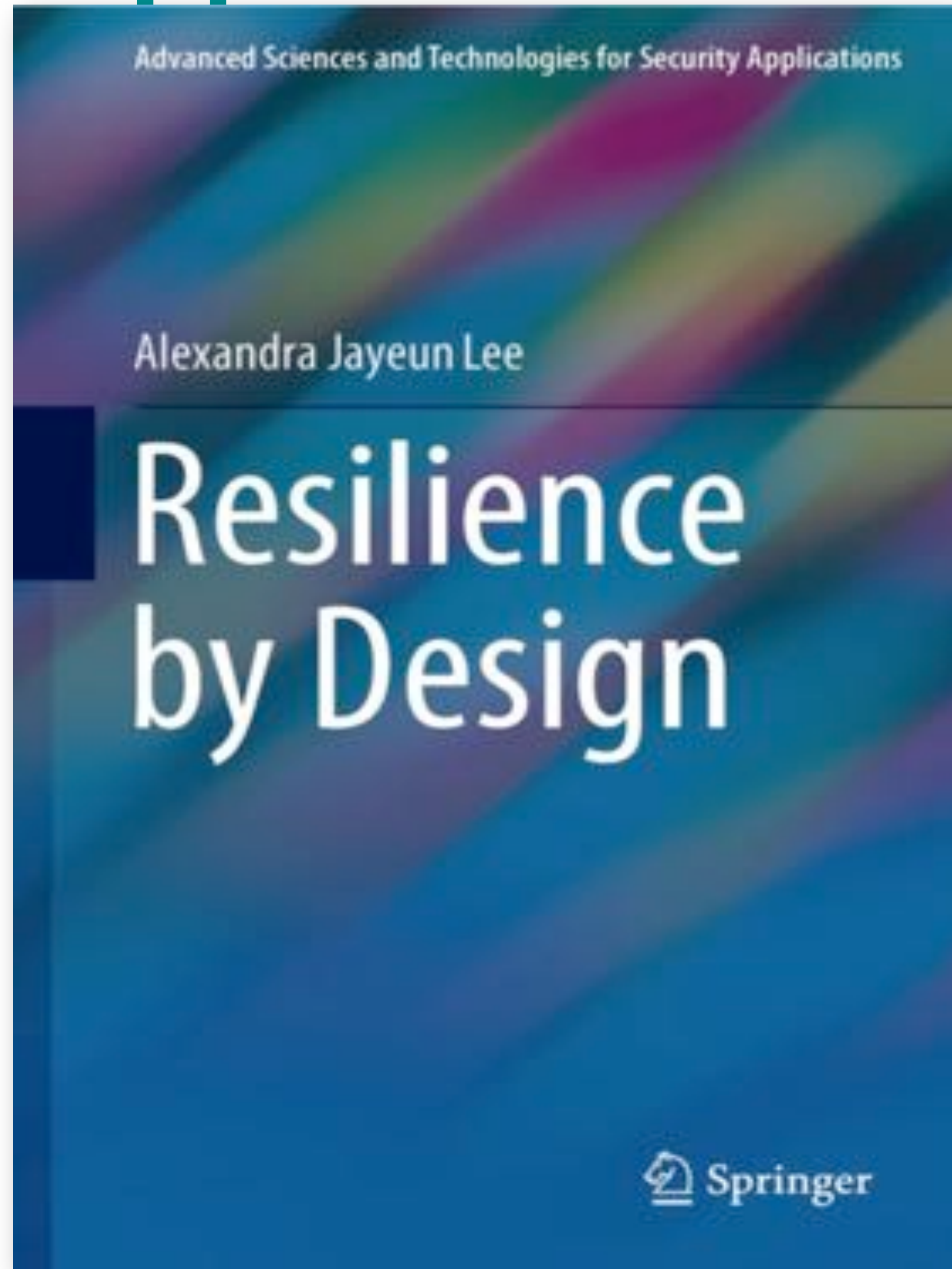


# Designing Inclusive and Equitable Cities

**Alexandra Jayeun Lee, PhD**  
Civic Design Lab, USA  
@CivicDesign Lab | @leejayeun

# Application of Design Thinking in Social Crisis



# Designing Inclusive and Equitable Cities

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- **Government Innovation Labs: An Overview**
- **Story of Civic Design Lab**
  1. **Challenge Assumptions**
  2. **Think Long Term**
  3. **Take Ownership**
- **Case Studies**
  4. **Unlearn Old Habits**
  5. **Revisit status quo**
  6. **Empathize with all users**
  7. **Democratize decision-making**



Society is an organ - they grow until they are divided or until they are overwhelmed... Society exists for the benefit of its members, (not the other way around)”

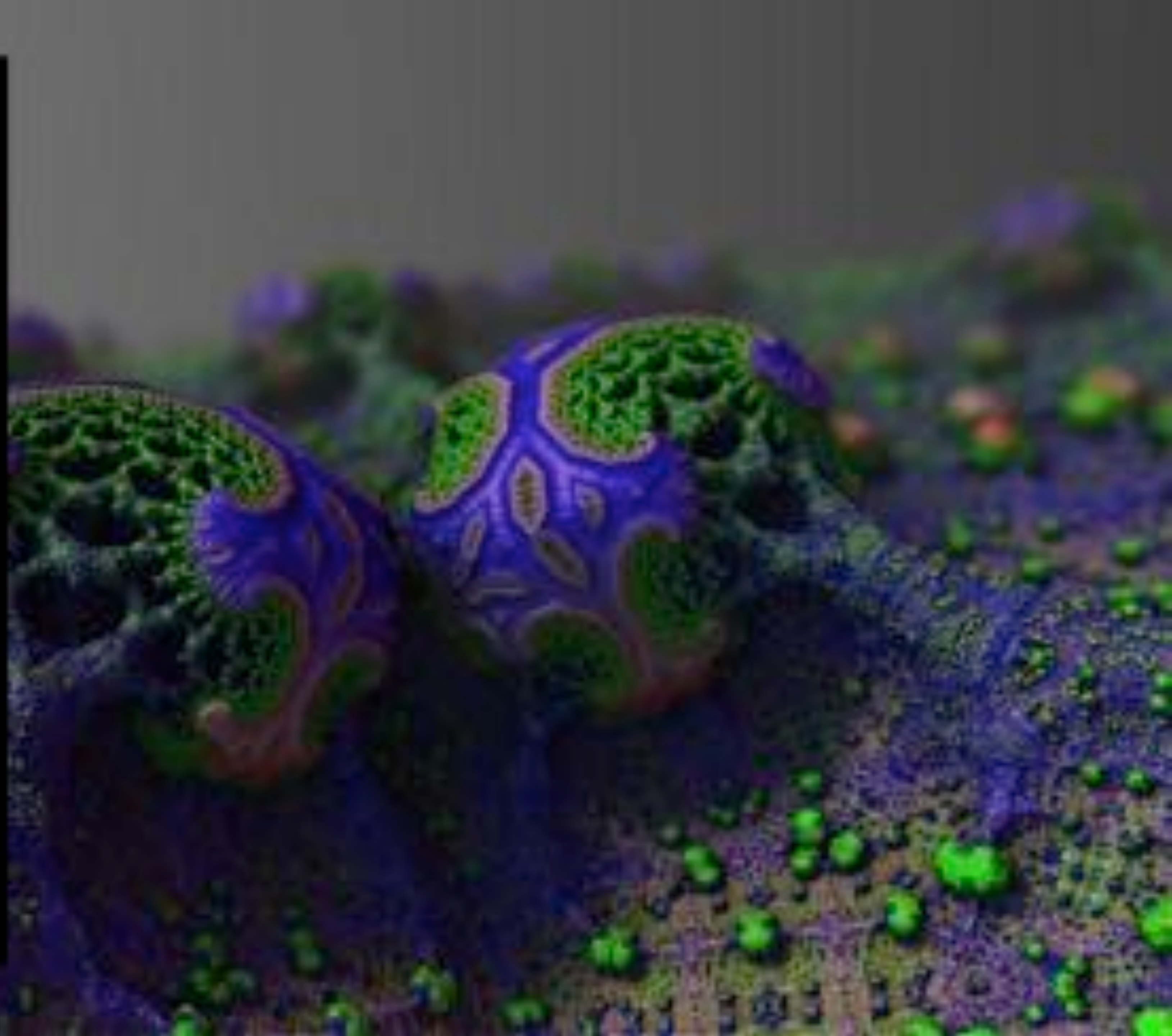
- Herbert Spencer, *Principles of Sociology, Vol. 2* (1895:445-9)

# SCALE

The Universal Laws of Growth,  
Innovation, Sustainability, and the  
Pace of Life in Organisms, Cities,  
Economies, and Companies



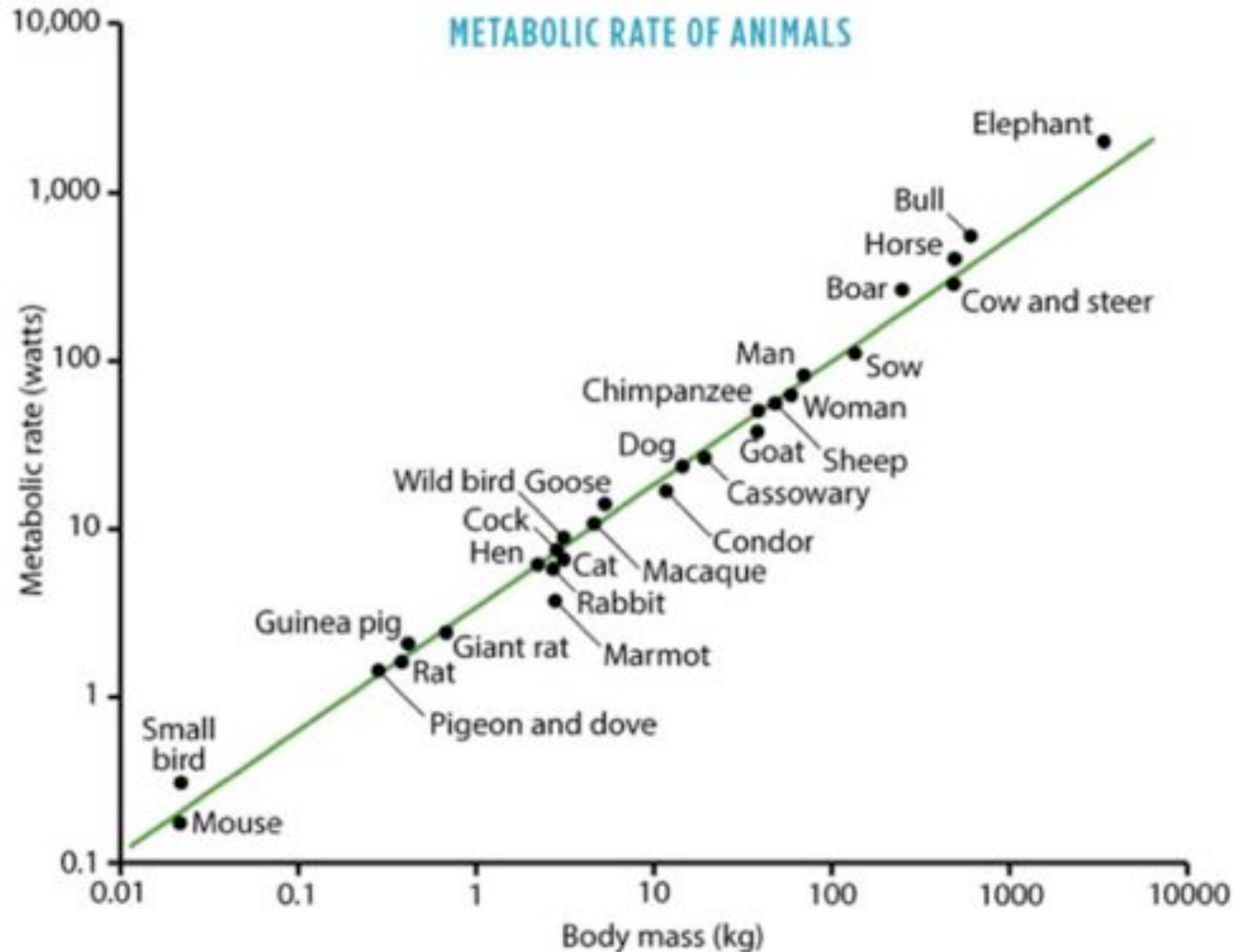
Geoffrey  
West



# Nature Follows Sublinear Power Law

- Metabolic efficiencies of nature mirrors the sublinear power law - for each factor of increase in body mass, only  $\frac{3}{4}$  of energy is required.

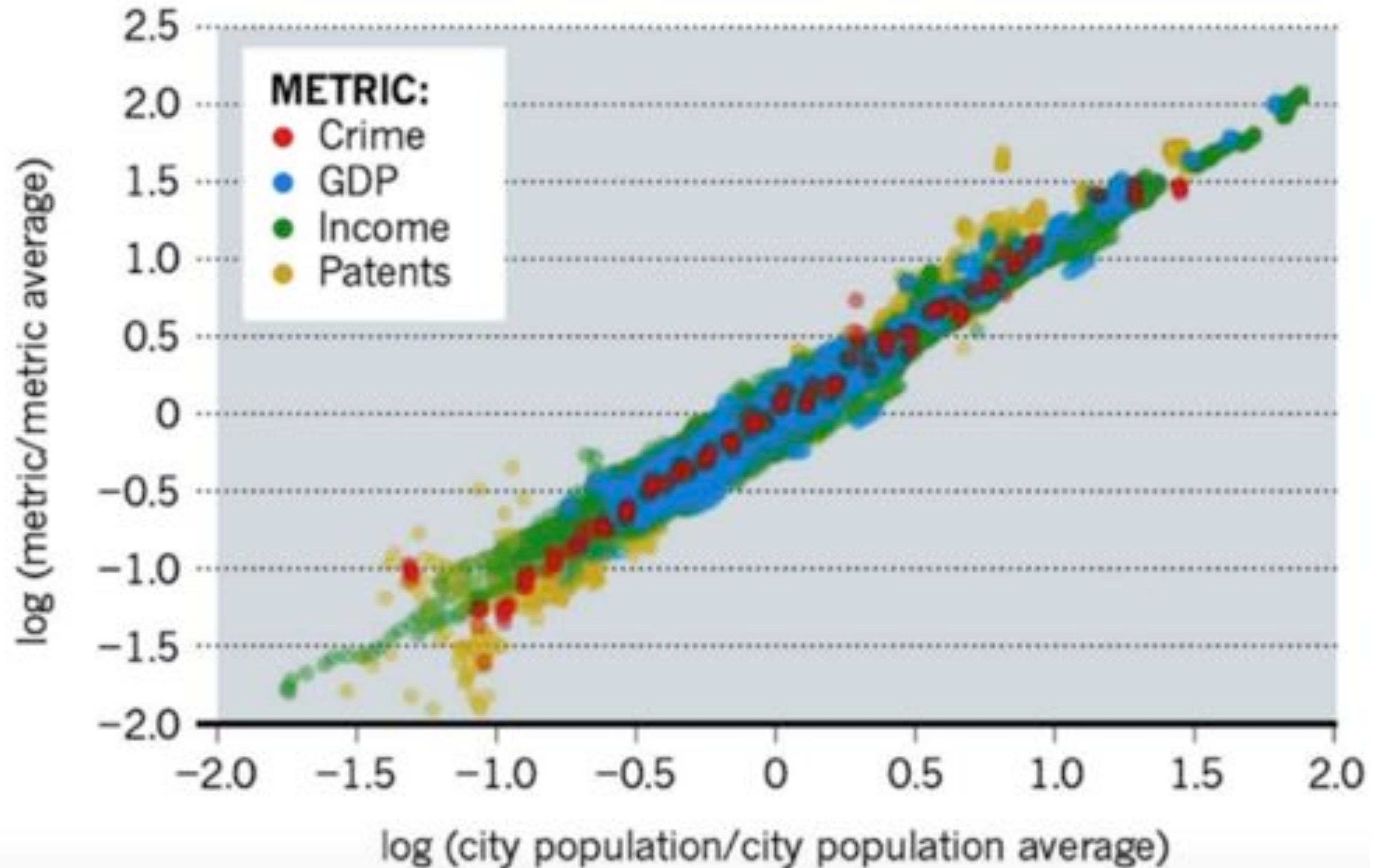
Source: G. West (2017)



# Cities Are Predictable

- Data from 360 U.S. Cities show that wages and crime scale in the same way with population size.

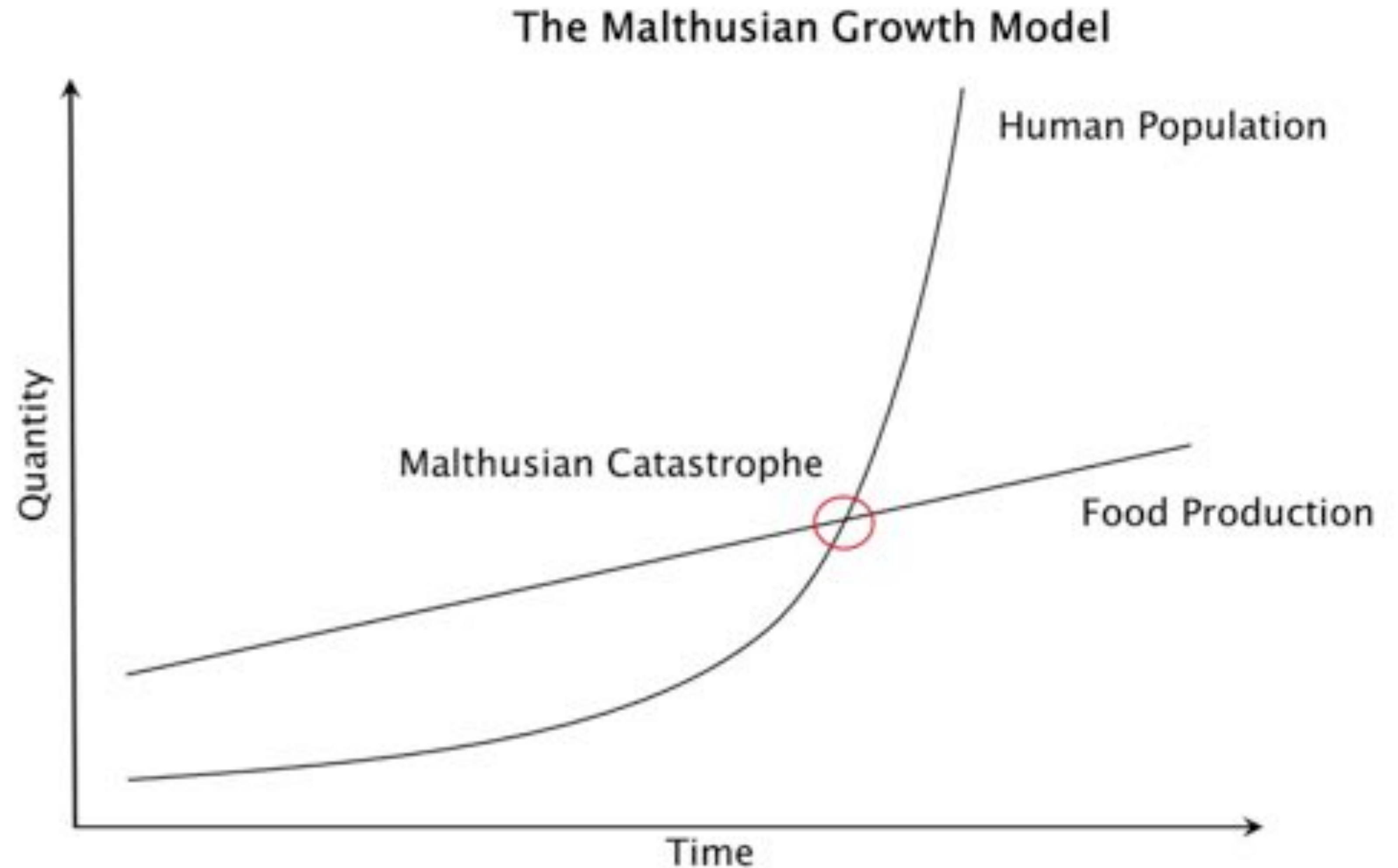
Fig 44. Smith, in G. West, (2017:343)



# But Economies of Scale Have Limitations

- **Resources are finite; cities have limited carrying capacity**

Source: T. Malthus, *An Essay on the Principle of Population* (1798)



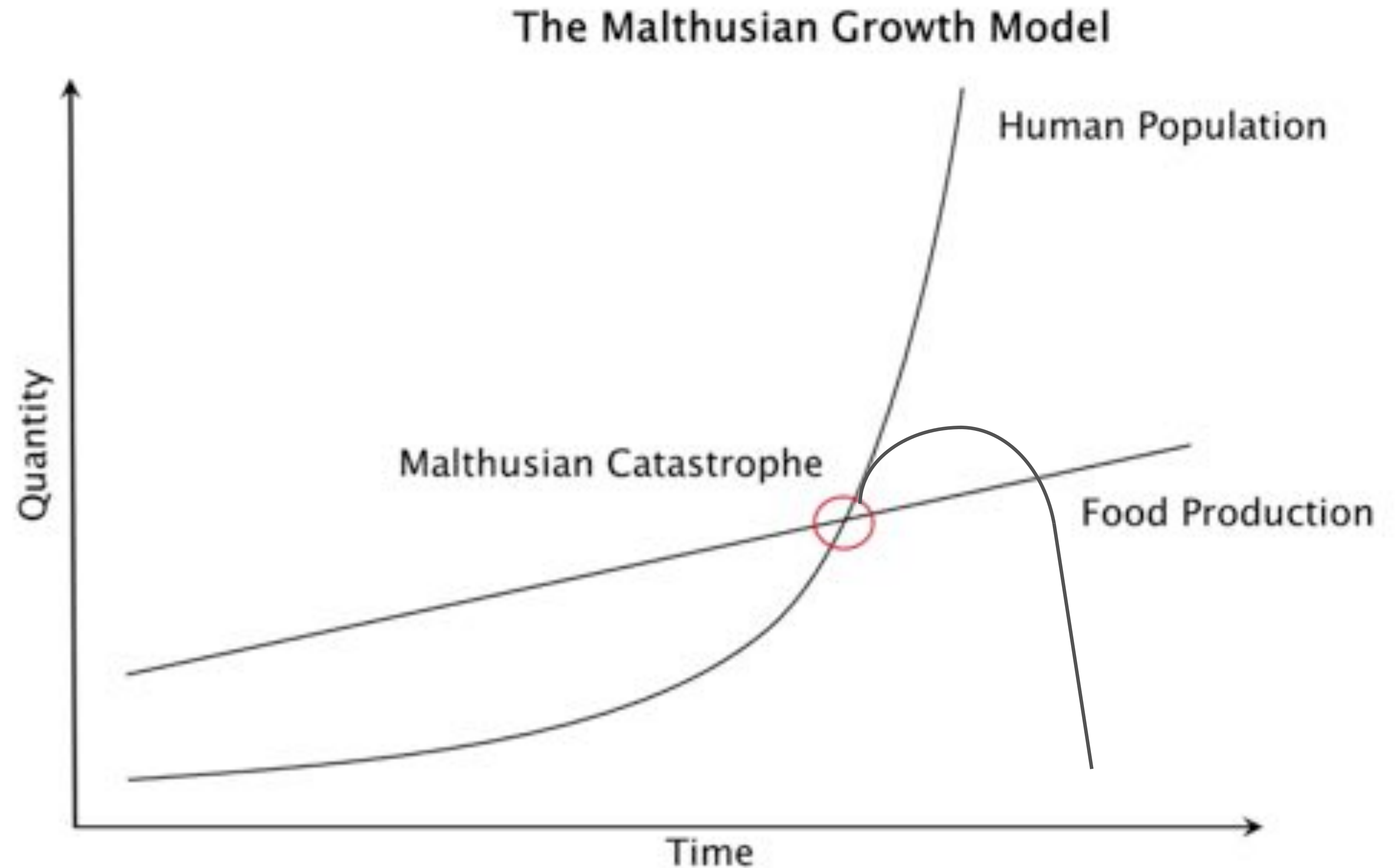


# Unbounded Growth Leads to Collapse

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- **Resources are finite; cities have limited carrying capacity**

Source: T. Malthus, *An Essay on the Principle of Population* (1798)

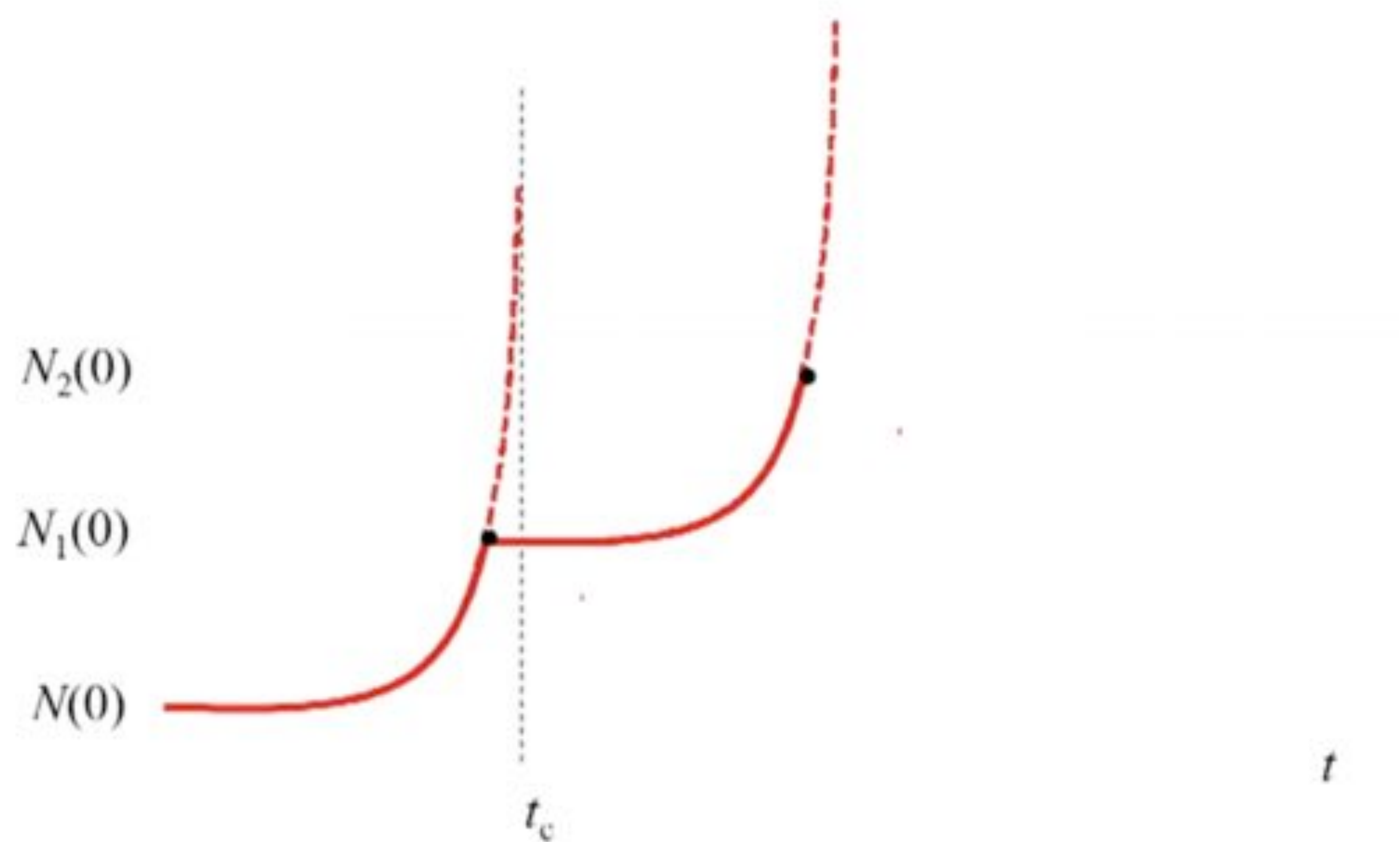


# Yet Innovative Cities Survive the Collapse

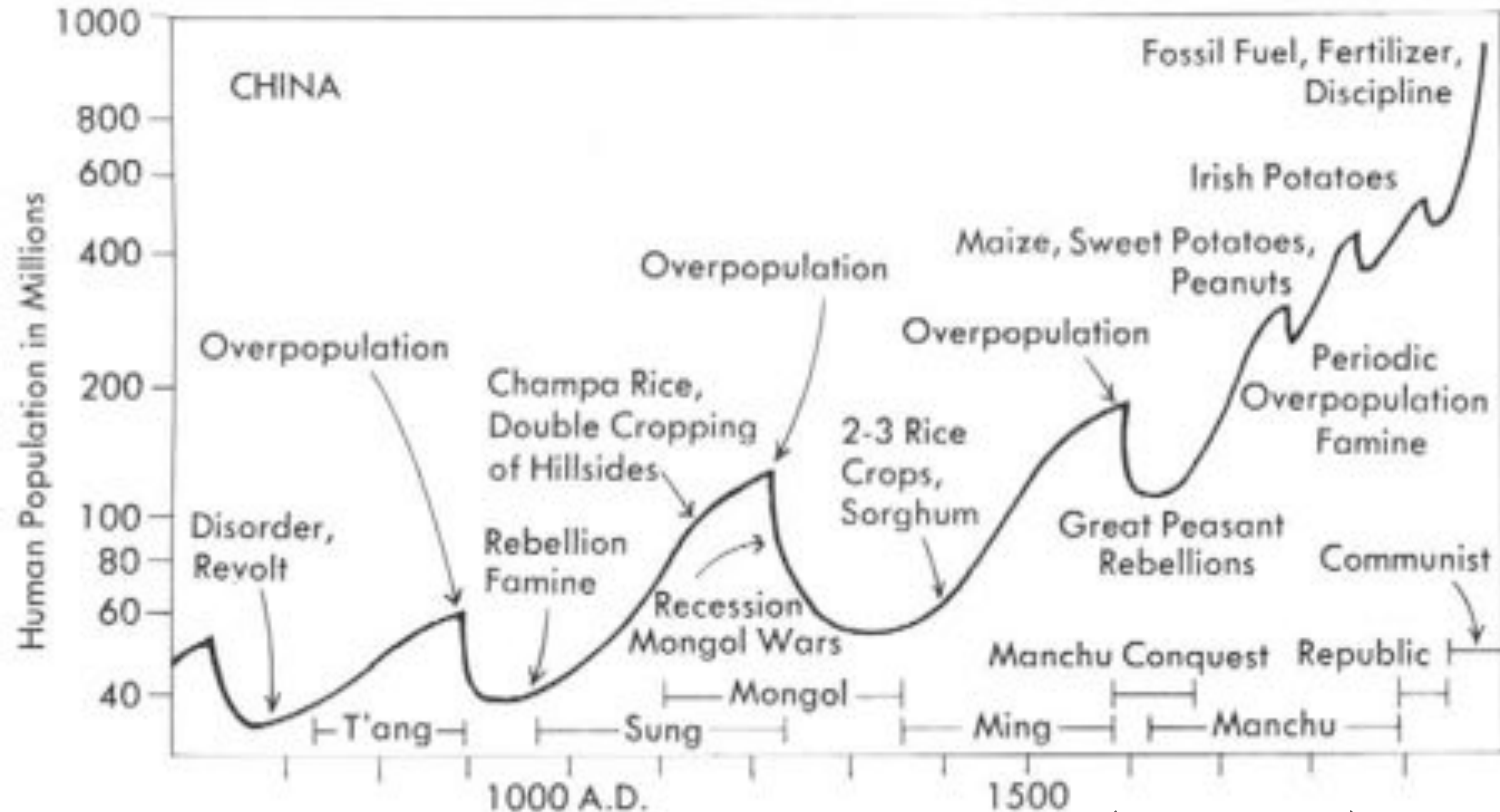
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- As we approach the point of collapse, we can innovate to stay within our carrying capacity

Source: G. West, (2017)



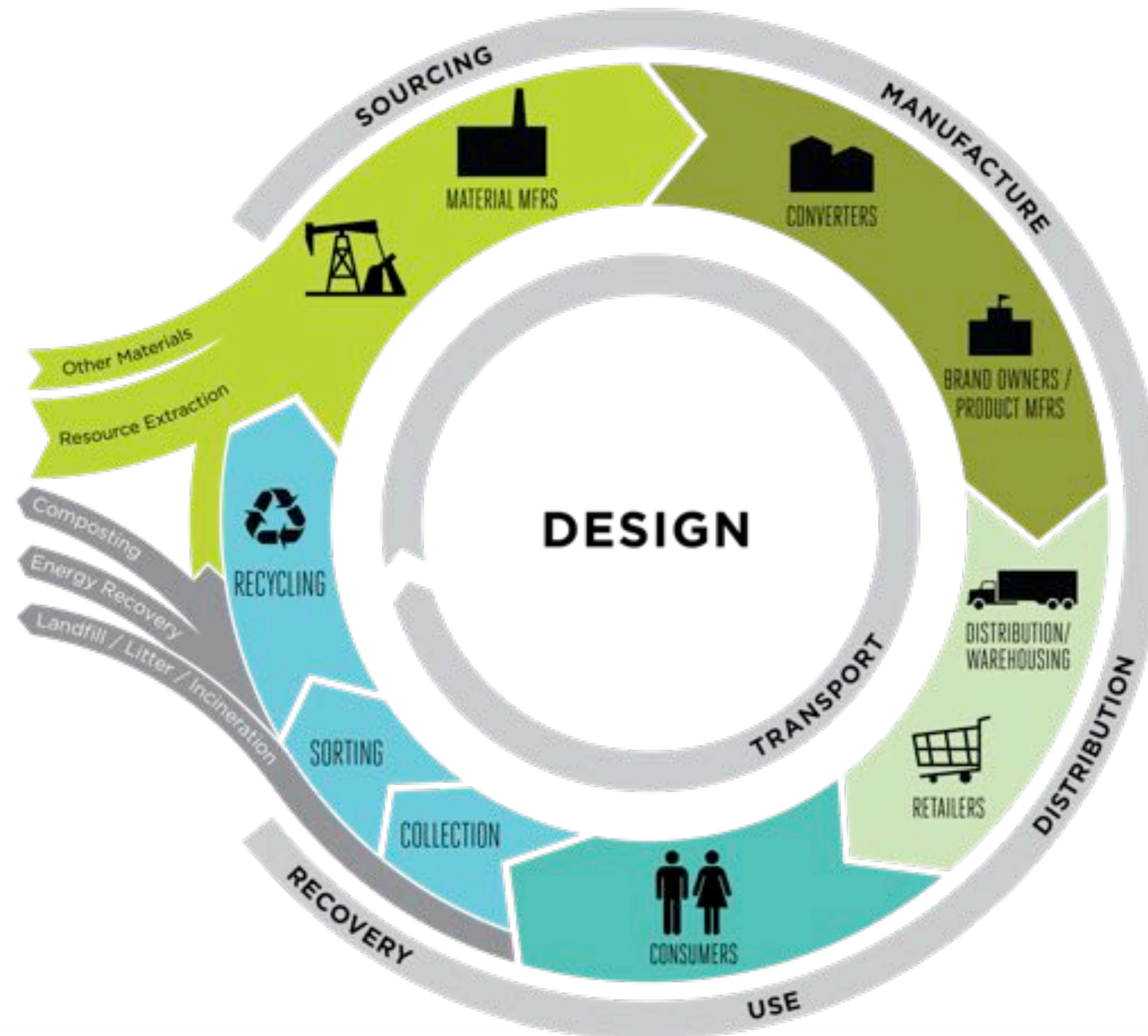
# Sawtooth Ascent is Possible via Policy and Tech



Source: Whittaker, *Communities and Ecosystems* (1975:368)

**Embodied Energy?**

**E**mbodied Energy = **M**aterials x **P**rocess x  
**I**mpact



# Embodied Energy in the Market Place and Our Environment

**E = MPI**

**Materials - Policies and Services**

**Process - Procedures to Implementation**

**Impact - CX and Perception**

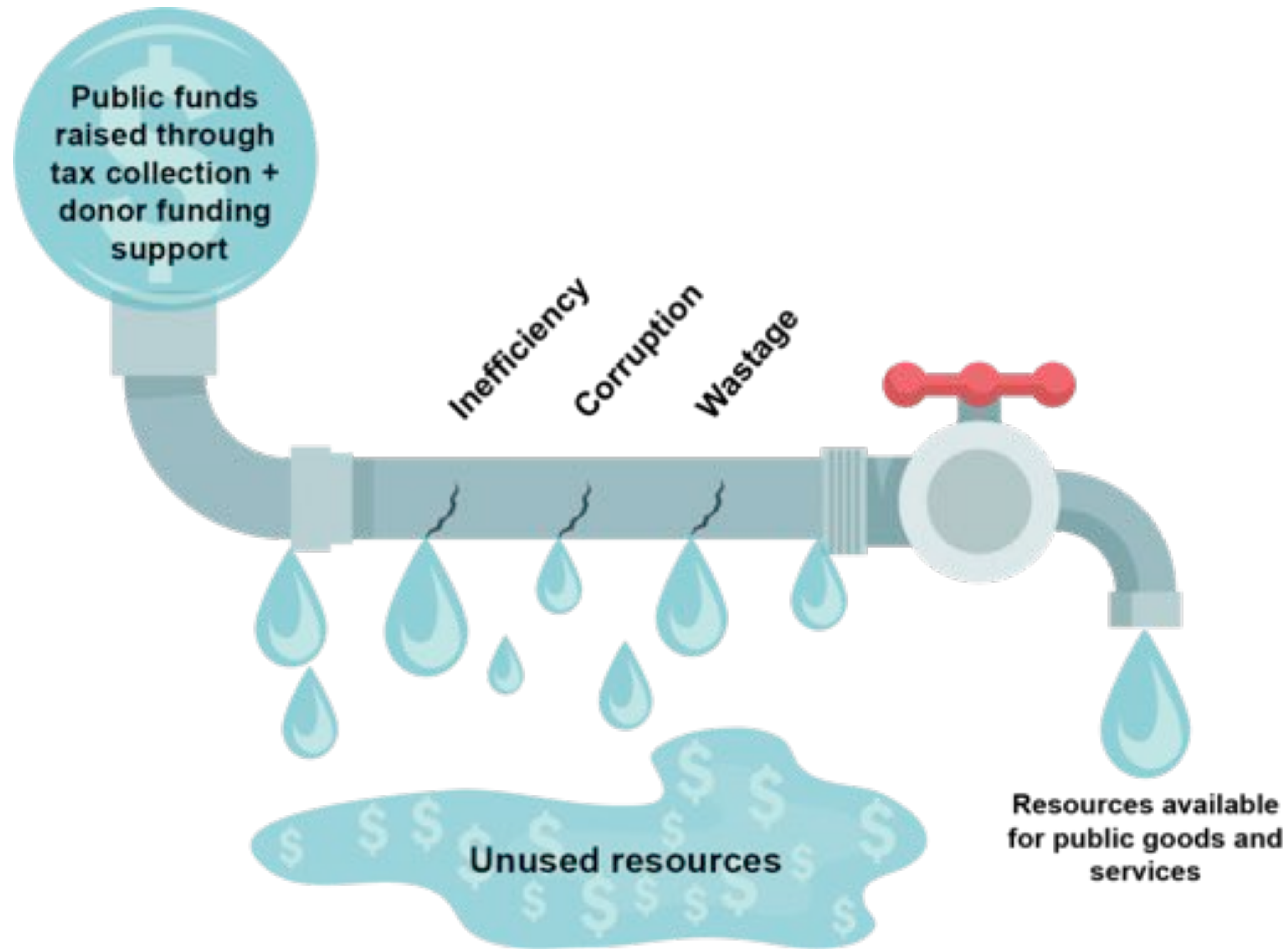
**E = MPI**

**Materials - Policies and Services**

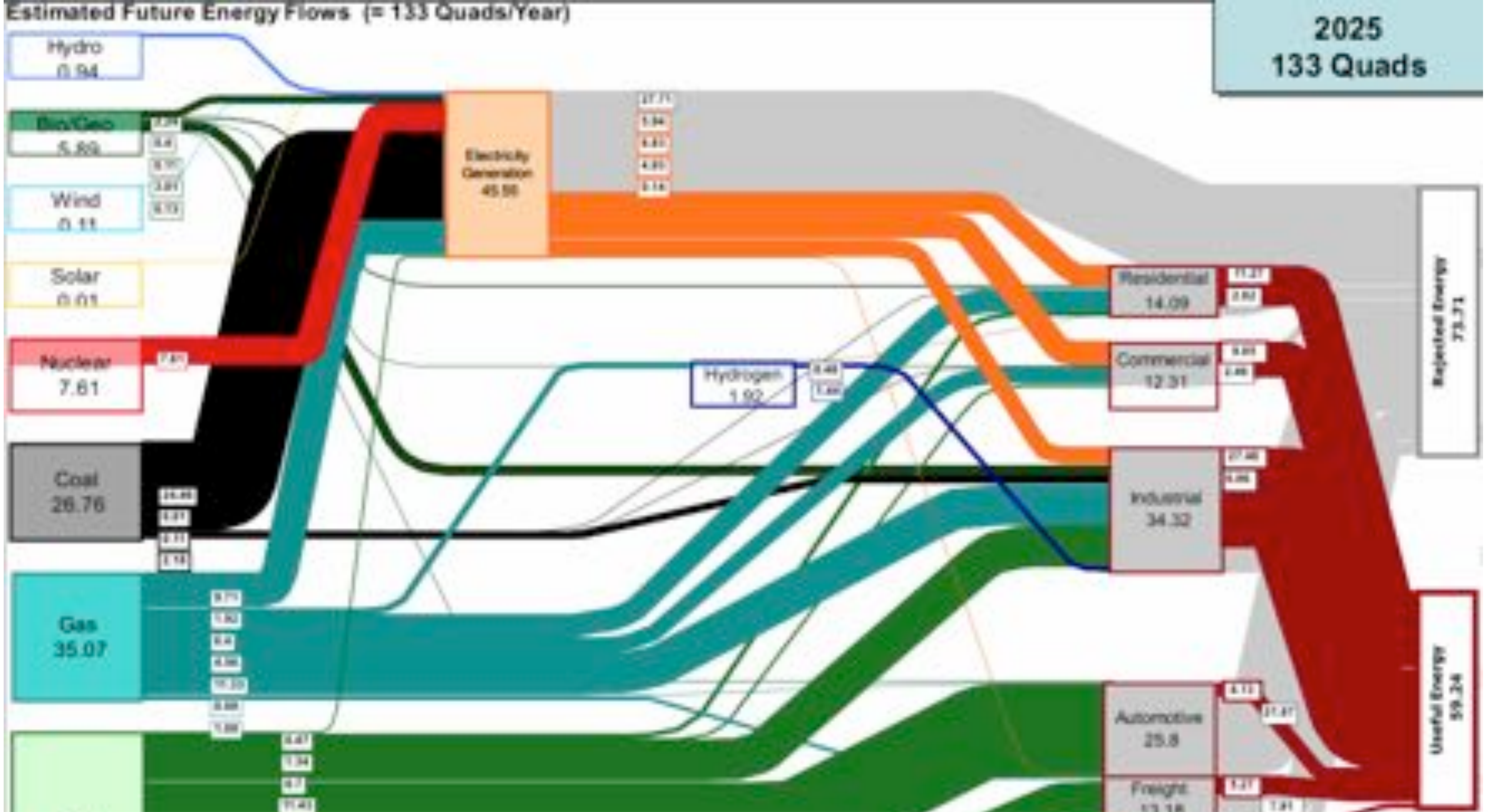
**Process - Procedures to Implementation**

**Impact - CX and Perception**





# Inefficiencies As Common Metaphor for Public Finance Management



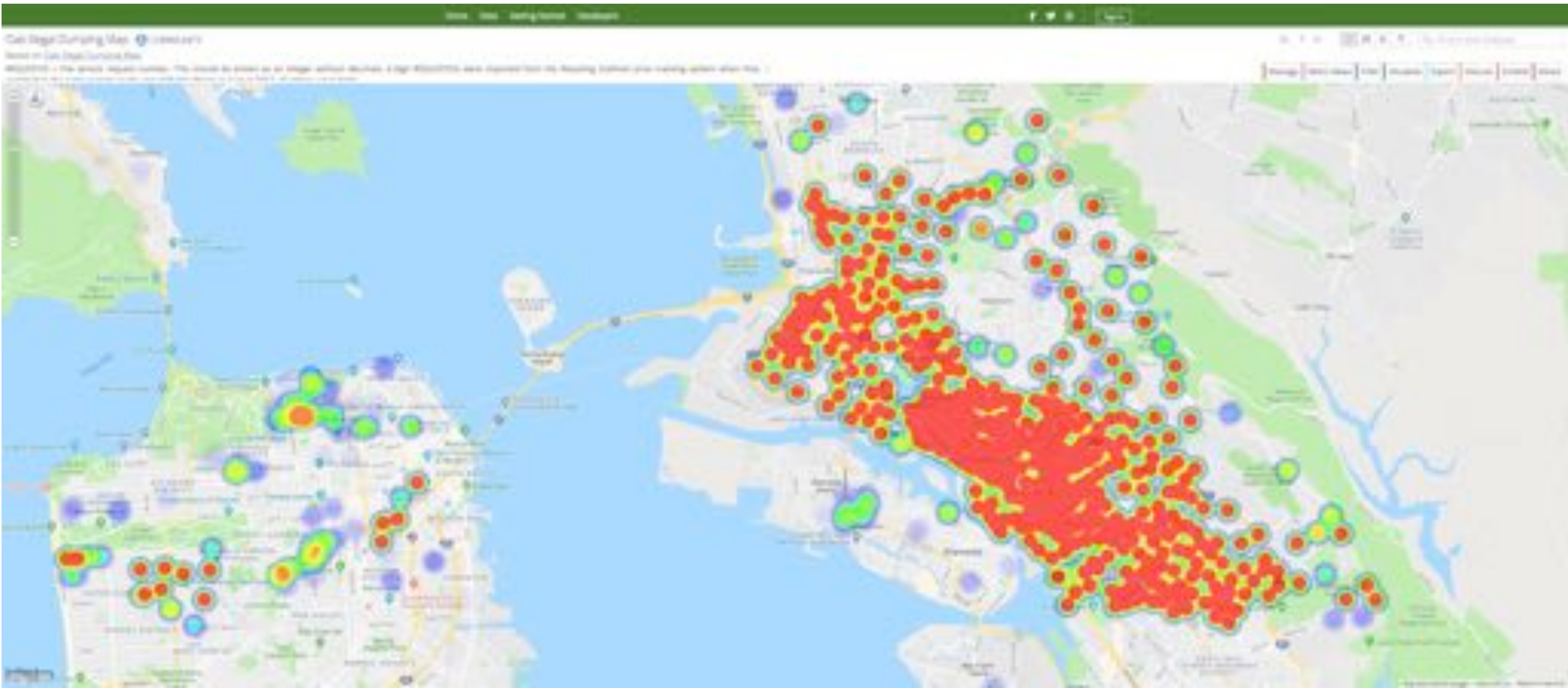
Big Picture: Useful Vs. Wasted Energy

# Scaling Innovation

- Government is a **key operating system** of society.
- When resources are scarce, we can:
  - a. **Sandbox experiments** outside;
  - b. Provide **access to deep insights** and reach of city government;
  - c. Fuel the **entrepreneurial spirit** of public servants through Technical Assistance and Design Thinking training.



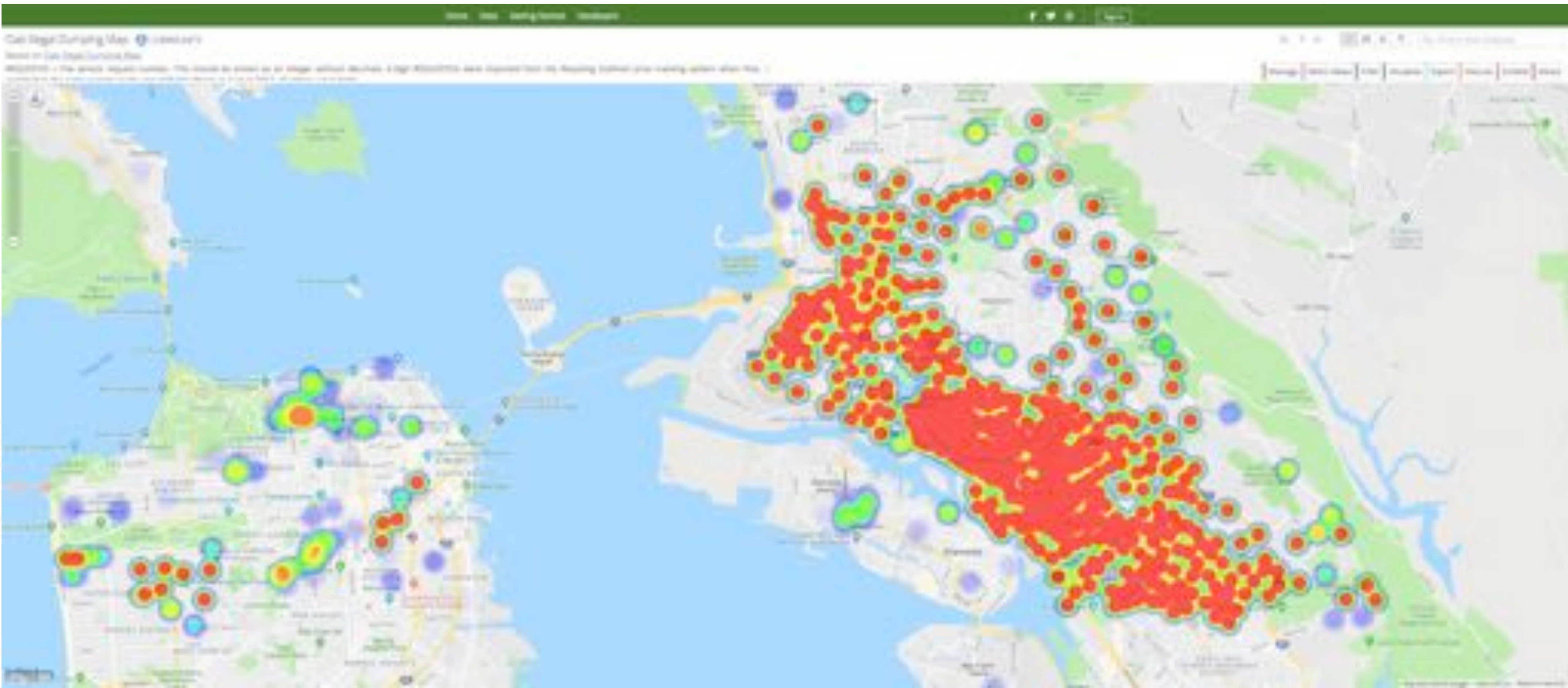
# 1. Challenge Your Assumptions



**Illegal Dumping Reported in SF and Alameda County 2017-2018**



**History of Inequity: Redlining Map of 1940s**



**Data-Driven World Is Fraught With Assumptions**

# Why Innovate Government?

---

- **Current Problem:** A **Californian resident** can live one mile from another and be twice as likely to be unemployed and live 15 years less. How might we solve for these **growing inequities**?
- **Our Solution:** Delivering more **effective and efficient government**. Civic Design Lab is a key implementation engine for Oakland's equitable civic innovation.





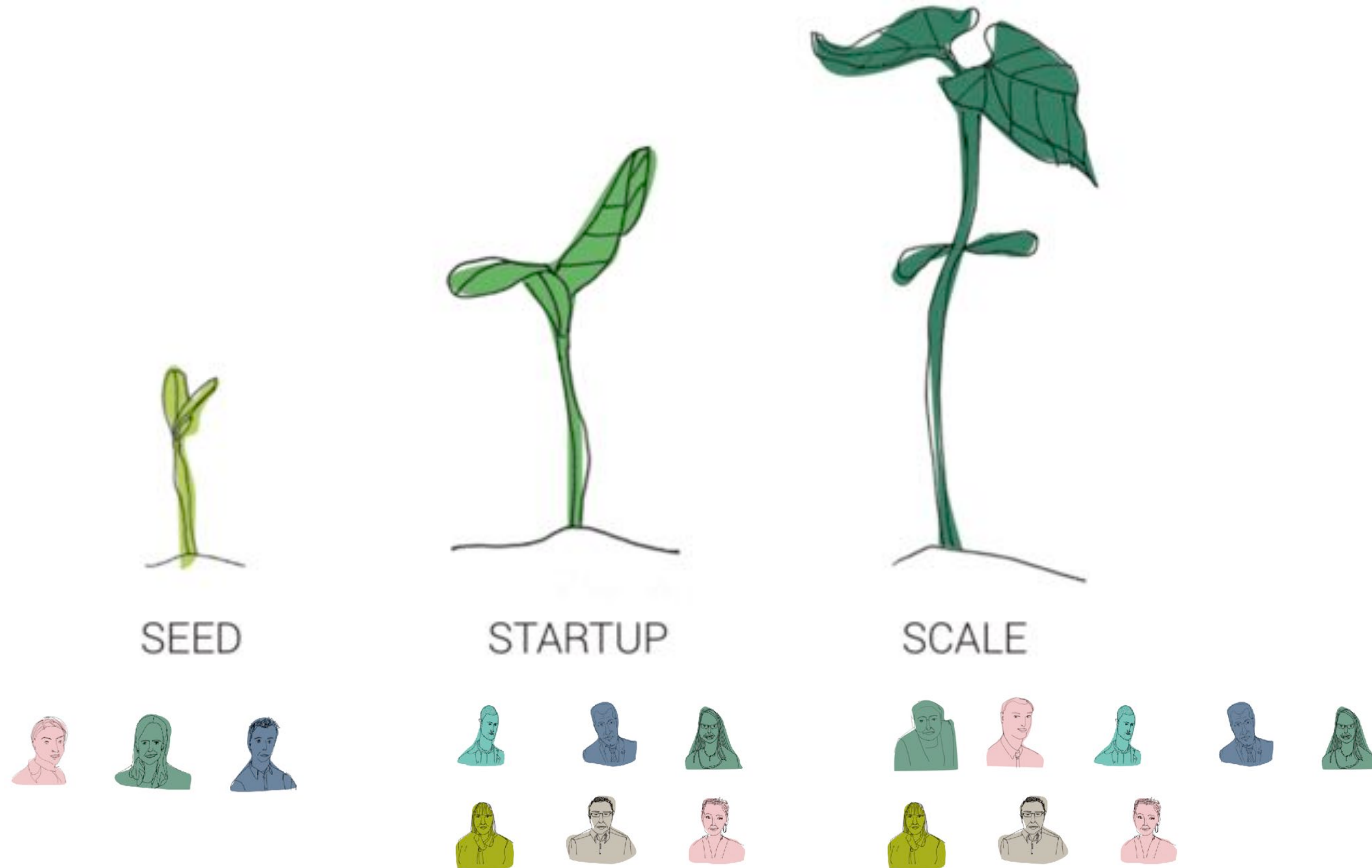
A bronze sculpture of a person with their arms raised in a gesture of triumph or celebration, set against a clear blue sky. The sculpture is positioned in the upper half of the frame, with its arms extending towards the top corners.

# Civic Design Lab

Building Urban Resilience

# Growth of Government Innovation Labs

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# Civic Tech: A Global Movement



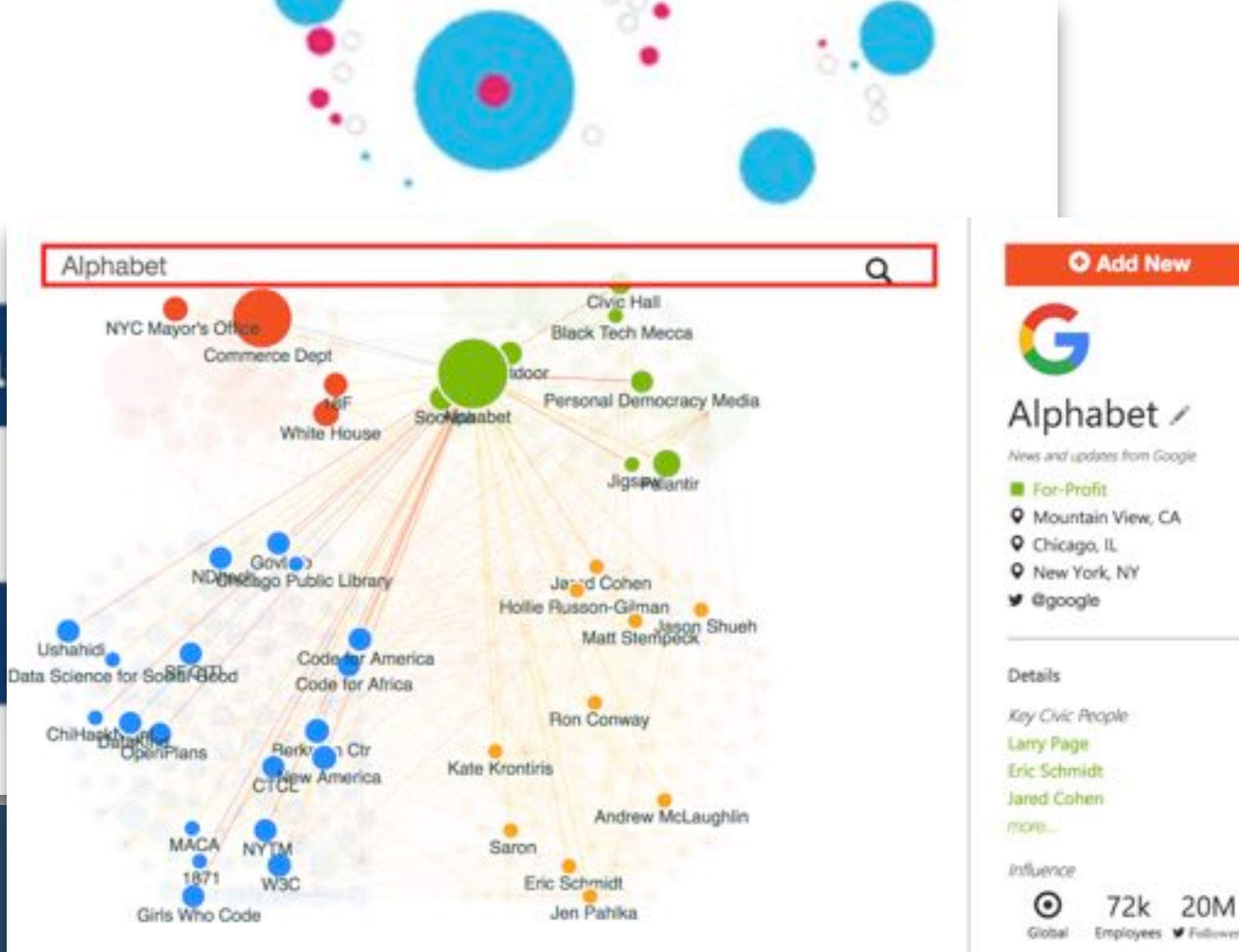
**Knights Foundation**

**Trends in Civic Tech**

**GROWING GOVERNMENT INNOVATION LABS**

An insider's guide

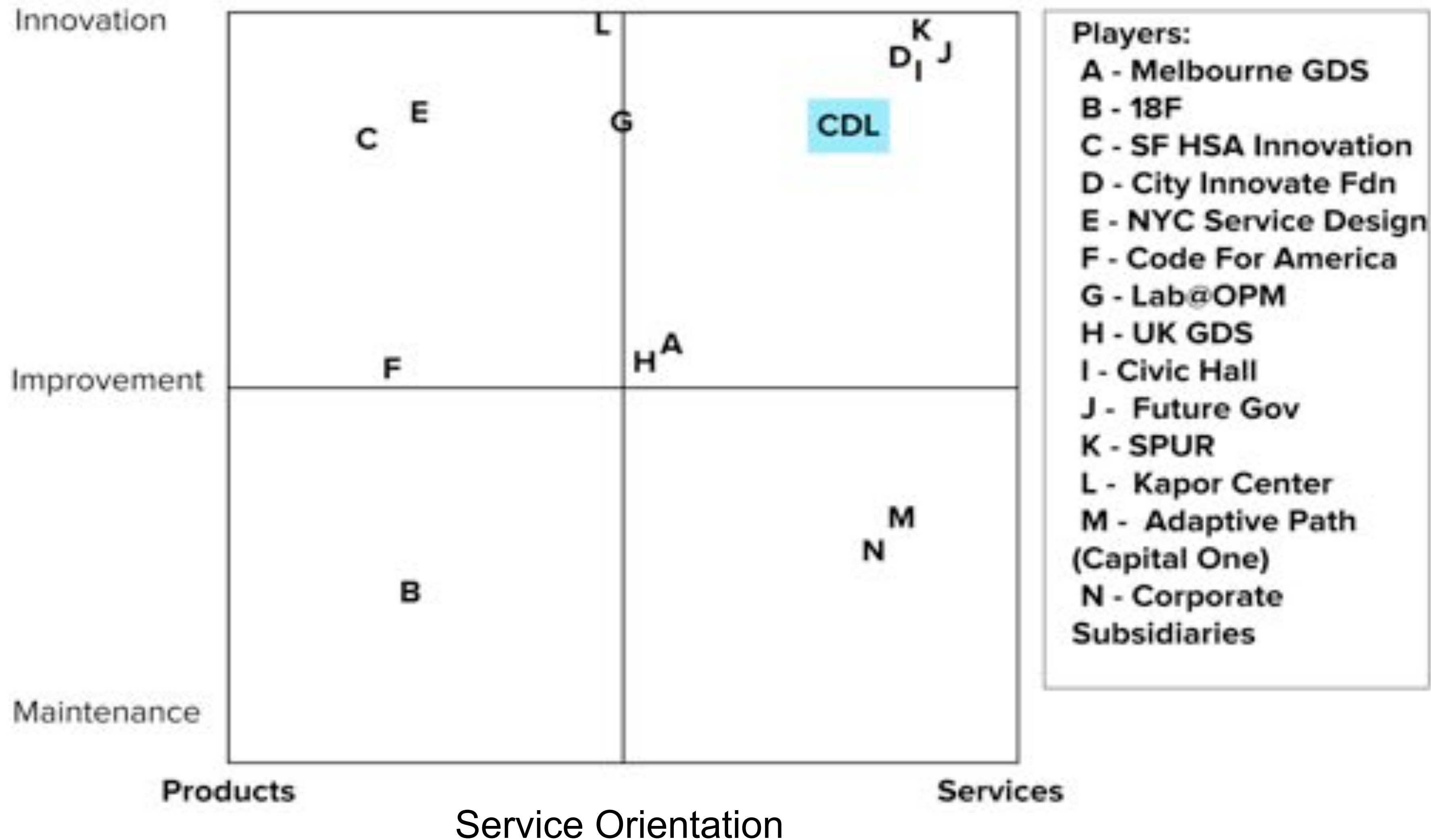
FUTUREGOV



# Making Sense of Civic Tech Orientation

Strategic

Tactical



## 2. Think Long-Term

# Actionable Resilience: Our Priorities

We expedite government service improvement, by providing a forum for partnerships and institutionalizing experimentation to maximize results for our residents.



## Helping Schools & Communities:

e.g. Ongoing parent/teacher engagement of Oakland Promise programs to assess and improve



## Addressing Chronic Homelessness:

e.g. Partnership with public housing authority and piloting transitional homes



## Building Financial Capabilities:

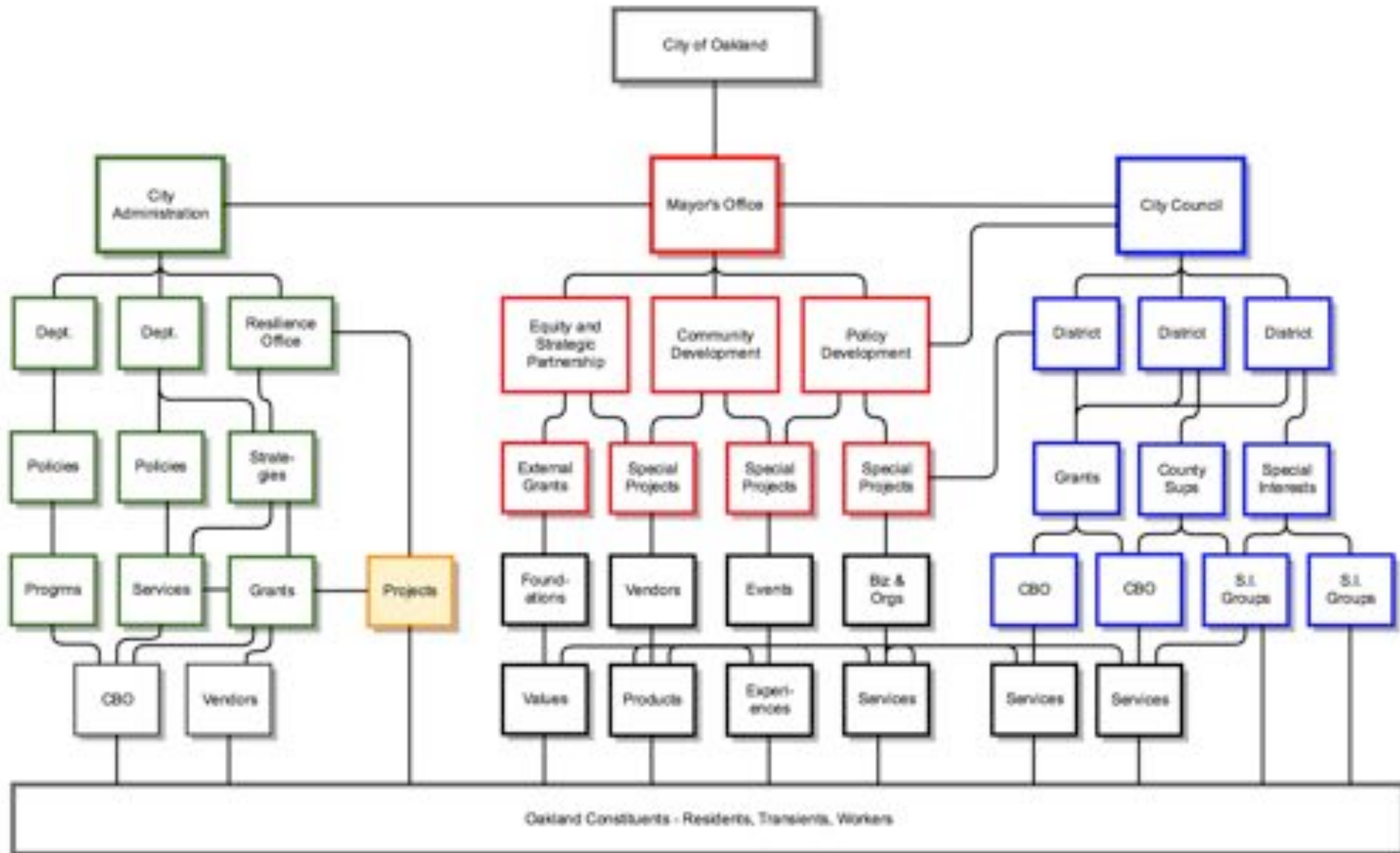
e.g. Supporting holistic asset building through partnership with small businesses, service providers, and community groups

# Task: Change Management

- **Culture Change:** By valuing and building on the **insights and experiences of public servants** to inform service improvements, as much as those from the **community**.
- Building capacity of public servants to think differently and institutionalize culture change.
- **Pilot Ways to Work Proactively Rather than Reactively to Form Policy:** **Front-load innovation** at staff level because prevention programming takes **intentional coordination** and data analysis.

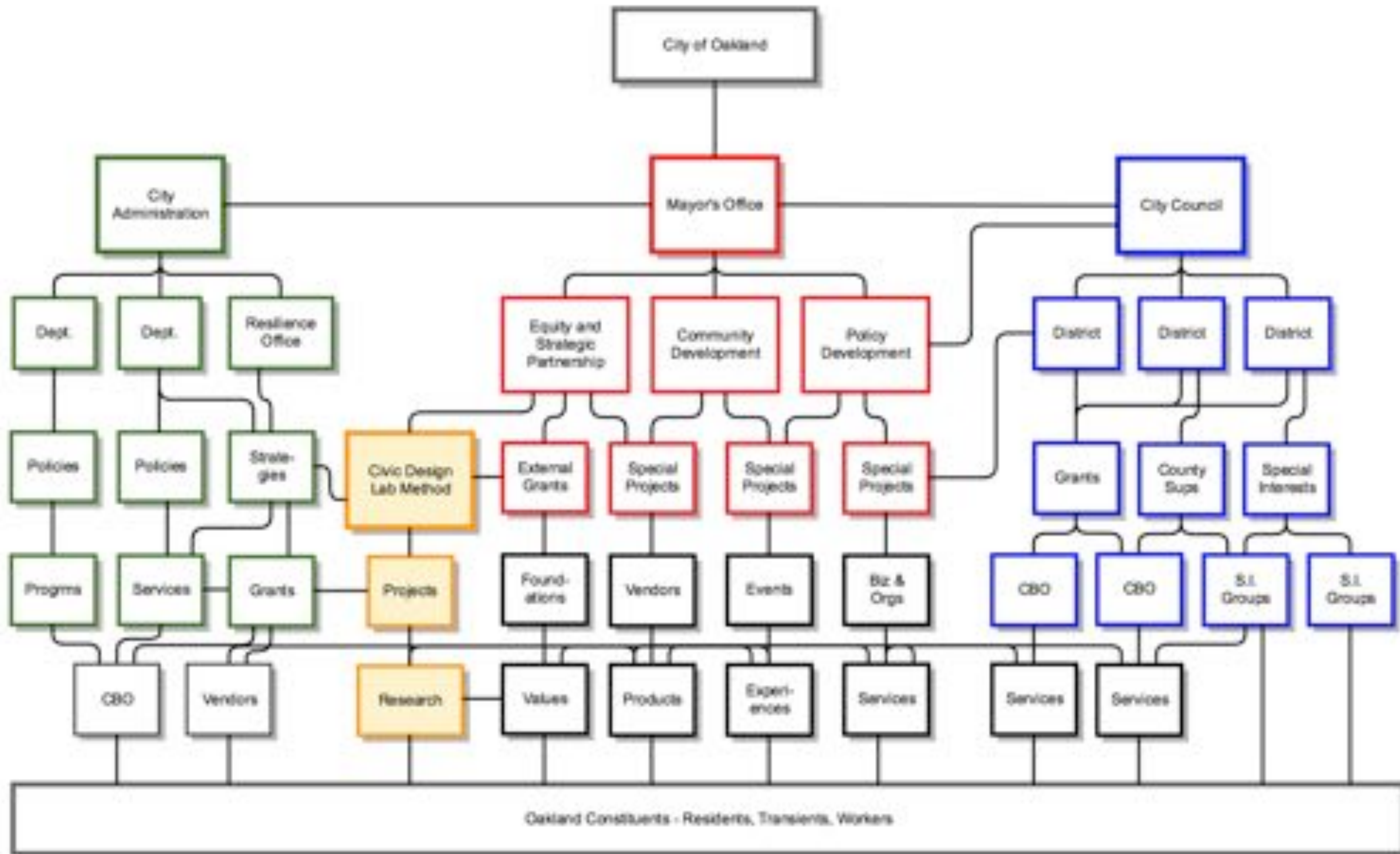


# City of Oakland Org Chart 2016-2017 "Seed"

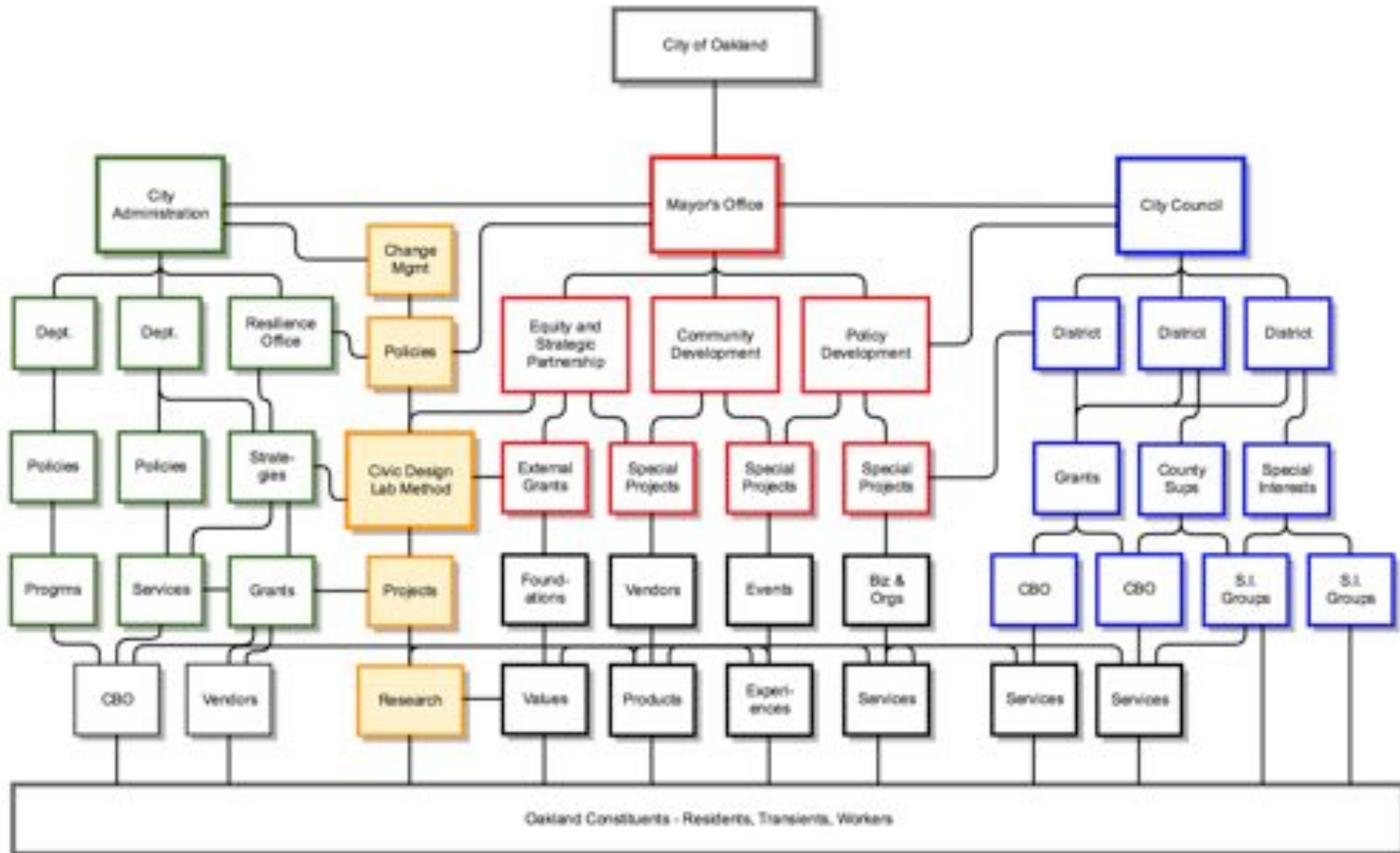




# City of Oakland Org Chart 2017-2018 "Startup"



# City of Oakland Org Chart 2018-2019 "M&A"



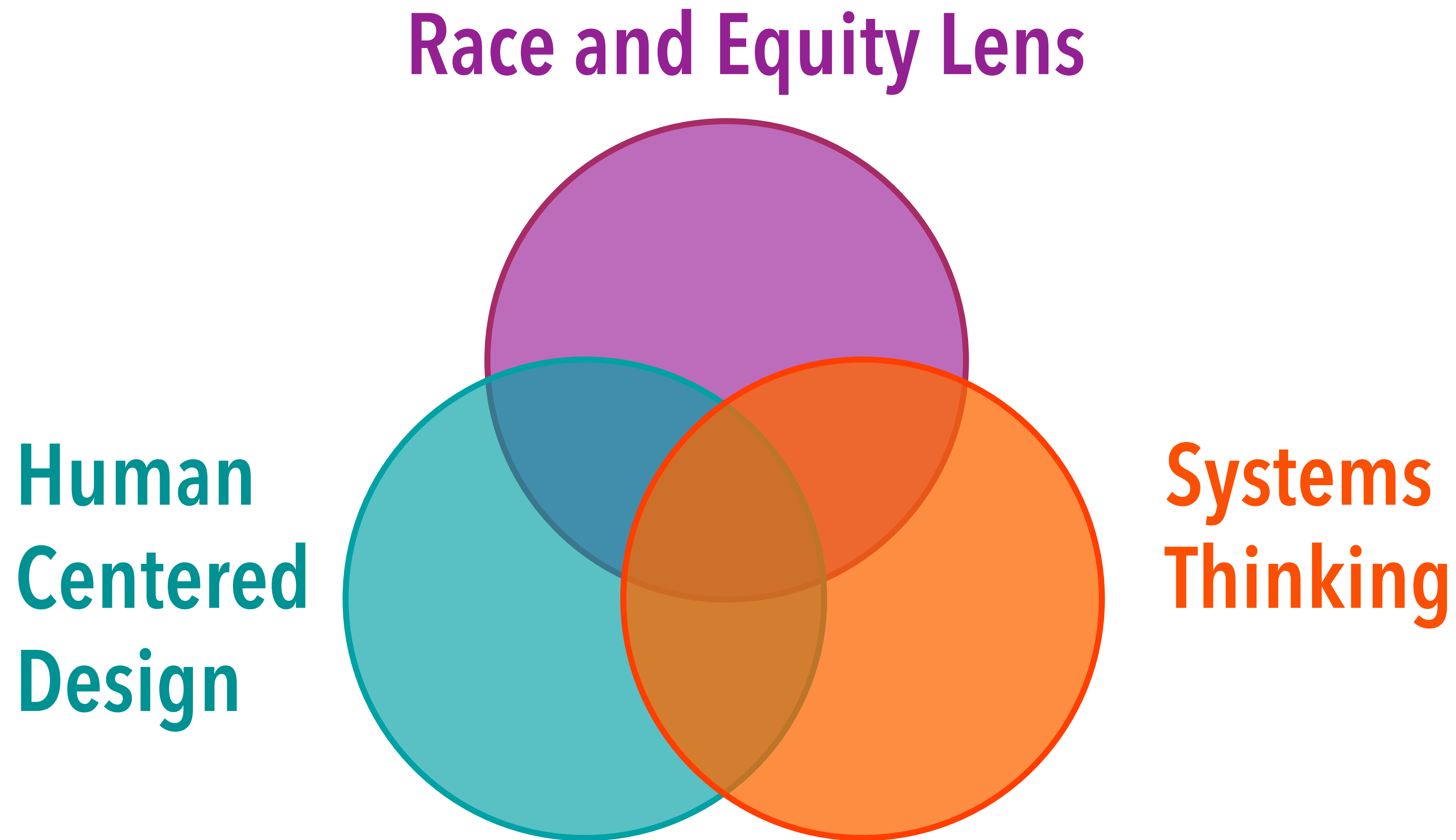


You never change things by fighting the existing reality.  
To change something, build a new model that makes  
the old model obsolete.

- R. Buckminster Fuller

# New Model for Civic Innovation

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## **3. Take Ownership**

**(Hint: Find Those That Already Do)**

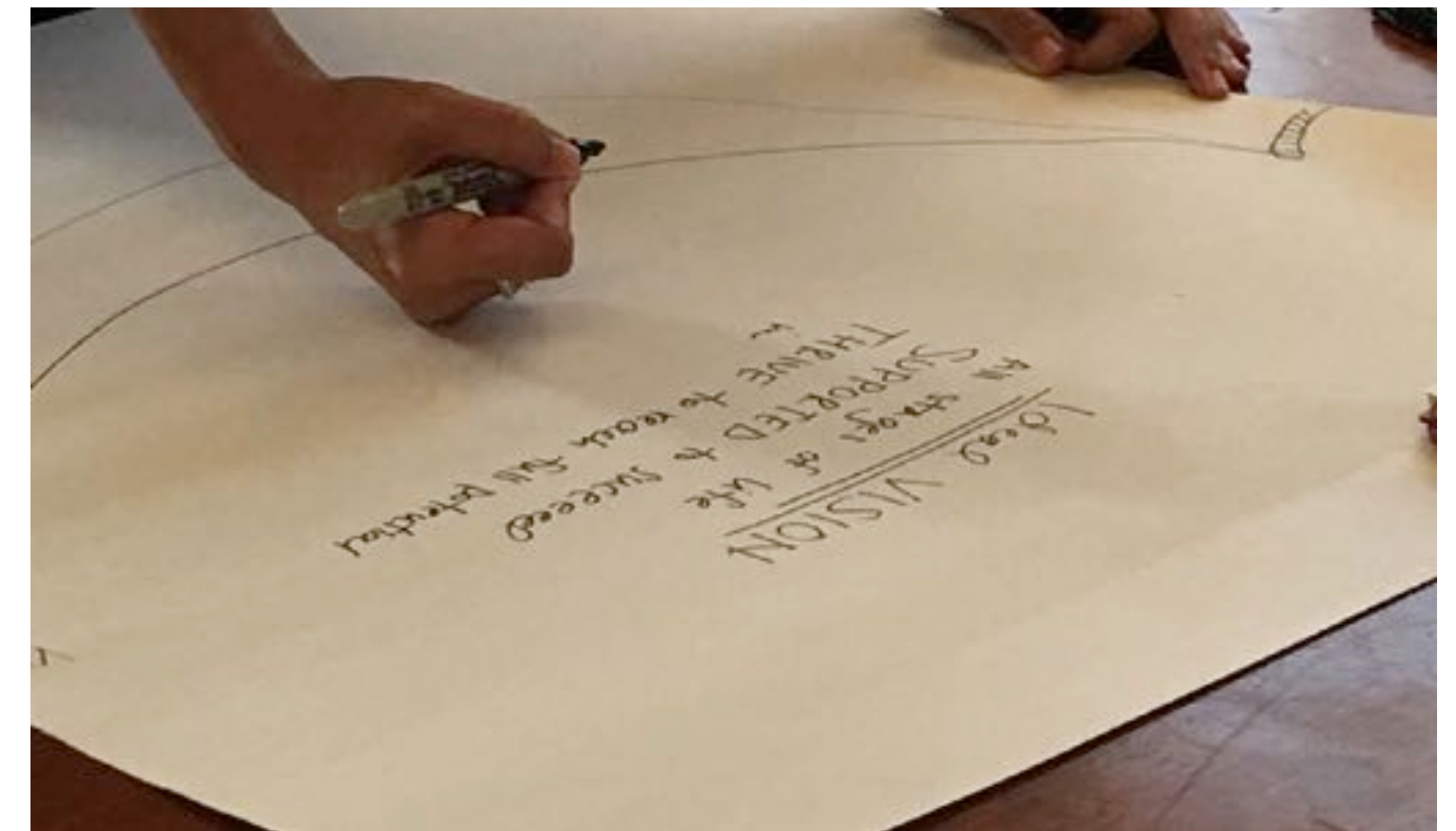
# Fantasticrats: The Rise of Design Thinking In Local Government

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Story of Resilience



**Fantasticrats = Fantastic Bureaucrats**



**We Build the Capacity of Our Public Servants  
To Build Resilient Policies and Services for Residents**

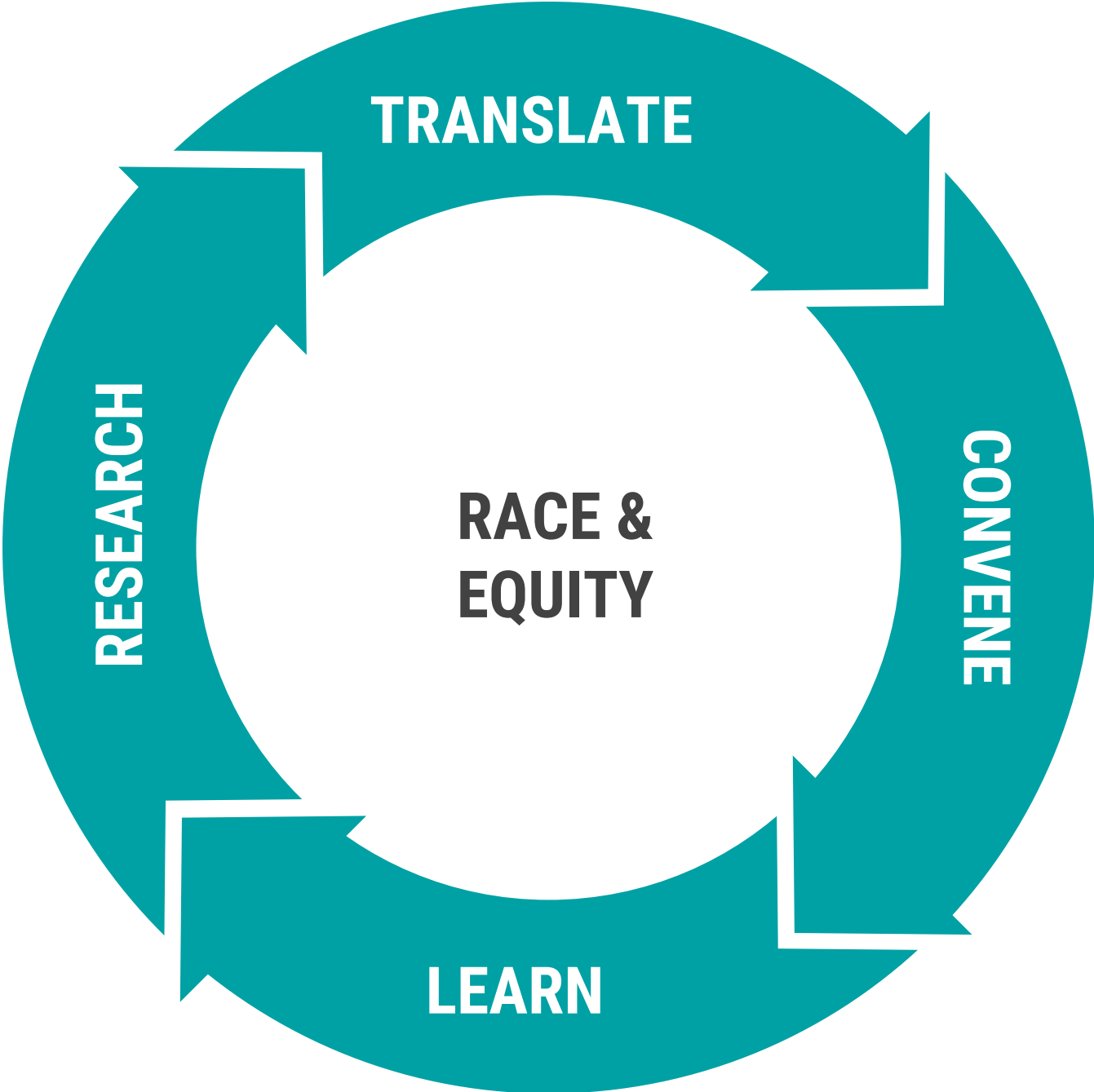


# Policy Design Validation Process

## 1. DISCOVERY



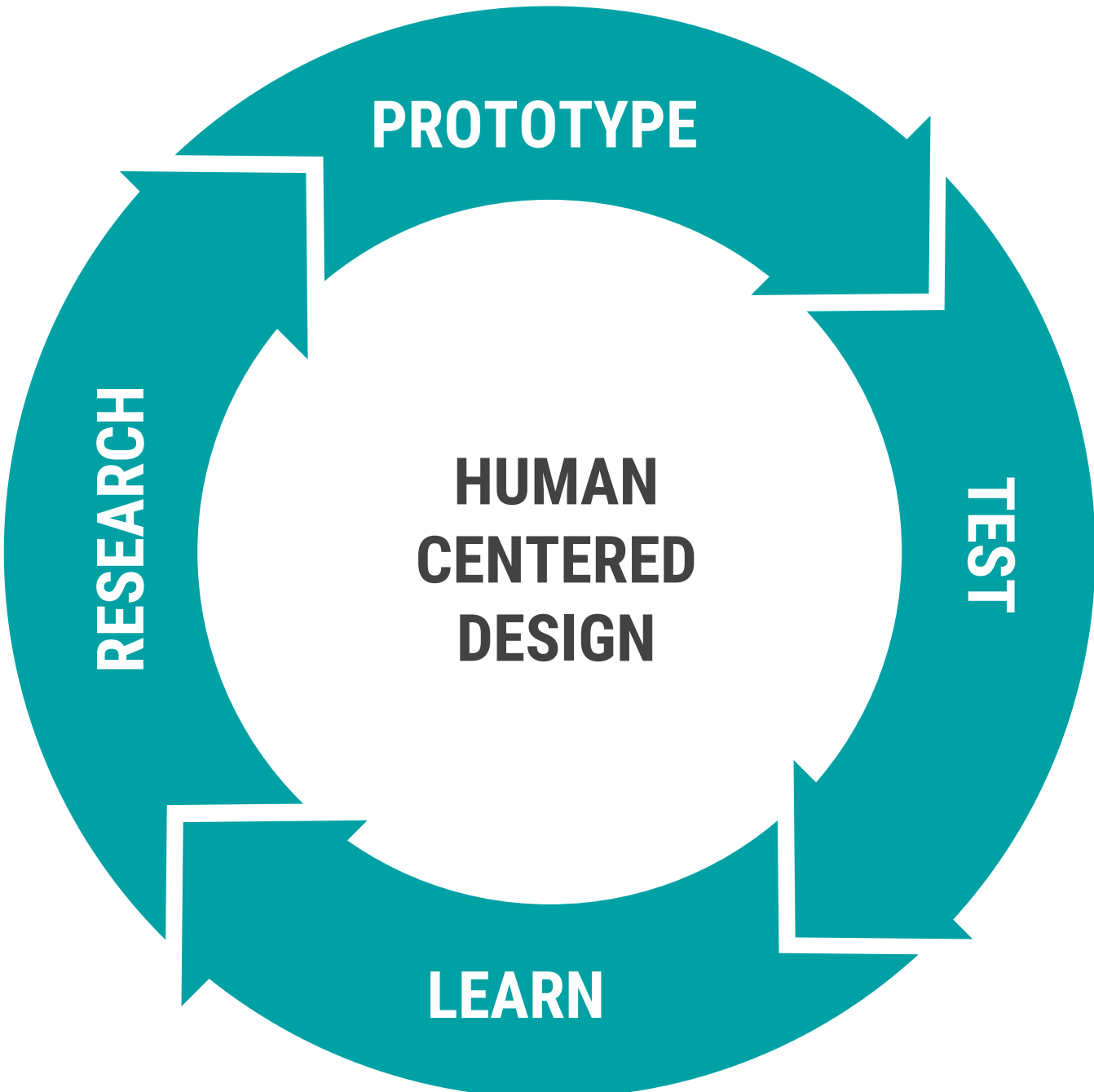
## 2. DISCUSSION



## 3. DATA



## 4. DESIGN



# Achievements to date

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- **Growth:** Since onboarding the Creative Director in 2017, the team grew to 5 and work closely with 3 departments, completed 6 projects, engaged 11 out of 17 departments
- **Public launch:** Launched to the public in **January 2018**.
- **Funded:** As of **May, 2018**, lab has received commitment from a major foundation to be funded in perpetuity
- **Systemic Change:** In **June 2018**, the City management signed off on a policy formalizing CDL as a key vehicle for implementing HCD across 17 departments and its 5,000 staff.



# Policy Innovation

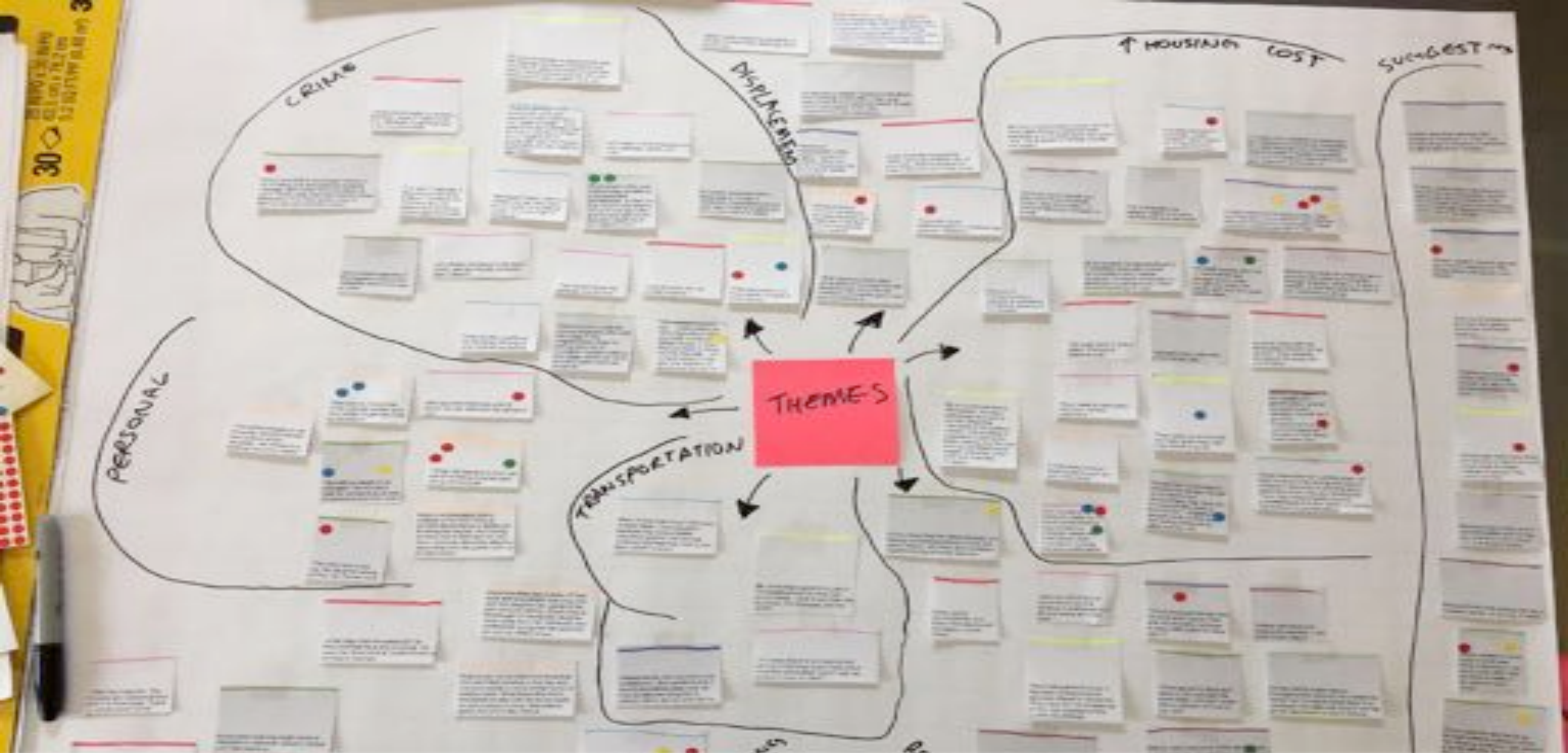


translation service for policy makers



# Healthy Housing Program

- **Co-design a potential Healthy Housing Inspection program with stakeholders to support residents before problems (fire, structural, lead poisoning, mold, etc) arise**
- **Conduct primary research to connect with residents across different regional districts and socio-economic strata to understand needs and aspirations**
- **Facilitate 2-part community workshops across Oakland with stakeholders including community organizations, advocacy groups, and city staff**



## Field Research to Identify Common Barriers

# stal C.

2/Single Mom to 1 Year Old

*"I just want to have a have stable job, provide for my child, and have housing that is safe and my own."*



DEMOGRAPHICS	BEHAVIORS	ATTITUDES
<p>Single Mother to 1 y. o. daughter Age: 32 Occupation: Medical Assistant, Ethnicity: African-American Situation: seasoned renter with a prior eviction record attempting to find affordable housing for her and her child</p>	<ul style="list-style-type: none"> <li>Protective of her child</li> <li>Will solve problems with home on her own before reaching out to professionals/city because it's less expensive</li> </ul>	<ul style="list-style-type: none"> <li>Less likely to tolerate unsafe/uncomfortable housing order to protect health of child</li> <li>Thinks City of Oakland should do more to provide reliable housing for residents</li> <li>Current conditions/services are exclusive in some cases</li> </ul>
NEEDS/CHALLENGES	GOALS/MOTIVATIONS	HOW CAN WE HELP?
<p>rent increases due to extra person (child) difficulty finding housing with a child single income not complementary with high rent costs high-risk of displacement proximity to public transportation, place of employment and child care</p>	<ul style="list-style-type: none"> <li>Provide safe, dependable/stable, affordable housing for child</li> <li>Find housing without fear of displacement so can remain in Bay Area near family, friends, career</li> </ul>	<ul style="list-style-type: none"> <li>Erase eviction records if certain conditions are met so being qualified for rentals is more likely</li> <li>Hold workshops to educate renters on their rights</li> <li>Create system for reporting poor conditions in a rental unit if landlords unresponsive/unwilling to fix</li> <li>Reconsider housing assistance eligibility requirements</li> </ul>

# Shelley S.

Property Owner

*"I am struggling, even though I am in the upper-middle class for income relative to the average Oaklander"*



DEMOGRAPHICS	BEHAVIORS	ATTITUDES
<ul style="list-style-type: none"> <li>45 y.o, F, single</li> <li>Occupation: Tech Marketer</li> <li>Ethnicity: Caucasian</li> <li>Situation: First time homeowner, moved to Oakland after being priced out of the Peninsula</li> </ul>	<ul style="list-style-type: none"> <li>Rented her whole life, and doesn't know how to handle ongoing repairs - often turns blind eye to routine maintenance</li> <li>Avoidant of house-related problems due to busy lifestyle</li> </ul>	<ul style="list-style-type: none"> <li>Unhappy about her property tax being reevaluated and anxious about not being able to raise rent on her prospective tenants to make up for the difference</li> </ul>
NEEDS/CHALLENGES	GOALS/MOTIVATIONS	HOW CAN WE HELP?
<ul style="list-style-type: none"> <li>Need to find good schools for their future kids</li> <li>Current house not big enough for growing family, and plans to move away to save up then come back</li> </ul>	<ul style="list-style-type: none"> <li>Want to rent out her place eventually while she goes to live out of state with her husband's family in Texas while her children are young</li> </ul>	<ul style="list-style-type: none"> <li>Provide clear guidance and support for property owners - readily searchable online</li> <li>Provide public workshops for new homeowners looking to rent so they are aware of their rights and responsibilities</li> </ul>

# Tim D.

Renter

*"I make \$27 an hour, and I'm still drowning. I am so tired of Oakland."*



DEMOGRAPHICS	BEHAVIORS	ATTITUDES
<ul style="list-style-type: none"> <li>Male, single, no kids, 35 yrs. old</li> <li>Job: Professional in Tech</li> <li>Salary for Business Analyst: 75-90 k/year, \$ 35-45/hr.</li> <li>Situation: Single income renter looking for affordable housing near work</li> </ul>	<ul style="list-style-type: none"> <li>Little communication with neighbors</li> <li>May attribute to gentrification/ Can self-identify as gentrifier</li> <li>Living a single life</li> </ul>	<ul style="list-style-type: none"> <li>Lack of understanding of the problems of crime, homelessness, and trash in the city</li> <li>Moved to Bay Area during tech bubble, can't grasp why almost 6 figure salary is barely scraping by</li> </ul>
NEEDS/CHALLENGES	GOALS/MOTIVATIONS	HOW CAN WE HELP?
<ul style="list-style-type: none"> <li>Bay Area continues to have the highest rent in country. The rent went up the 1st year, even when promised it wouldn't</li> <li>Only one income contributing to this household. 1 bed/1 bath is only option</li> <li>Needs housing in proximity to job, or public transit</li> </ul>	<ul style="list-style-type: none"> <li>Live somewhere that is easily accessible to job</li> <li>Prefer to live somewhere in walking distance to bars/restaurants (nightlife)</li> <li>Finding affordable rent since on the brink of being displaced</li> </ul>	<ul style="list-style-type: none"> <li>Provide informational resources to people with rental insecurities</li> <li>Find a way to link single income renters, with others facing similar situations</li> <li>Host workshop on housing/rental rights</li> </ul>

# Sample Personas and Other General Challenges of Conducting Research within Government



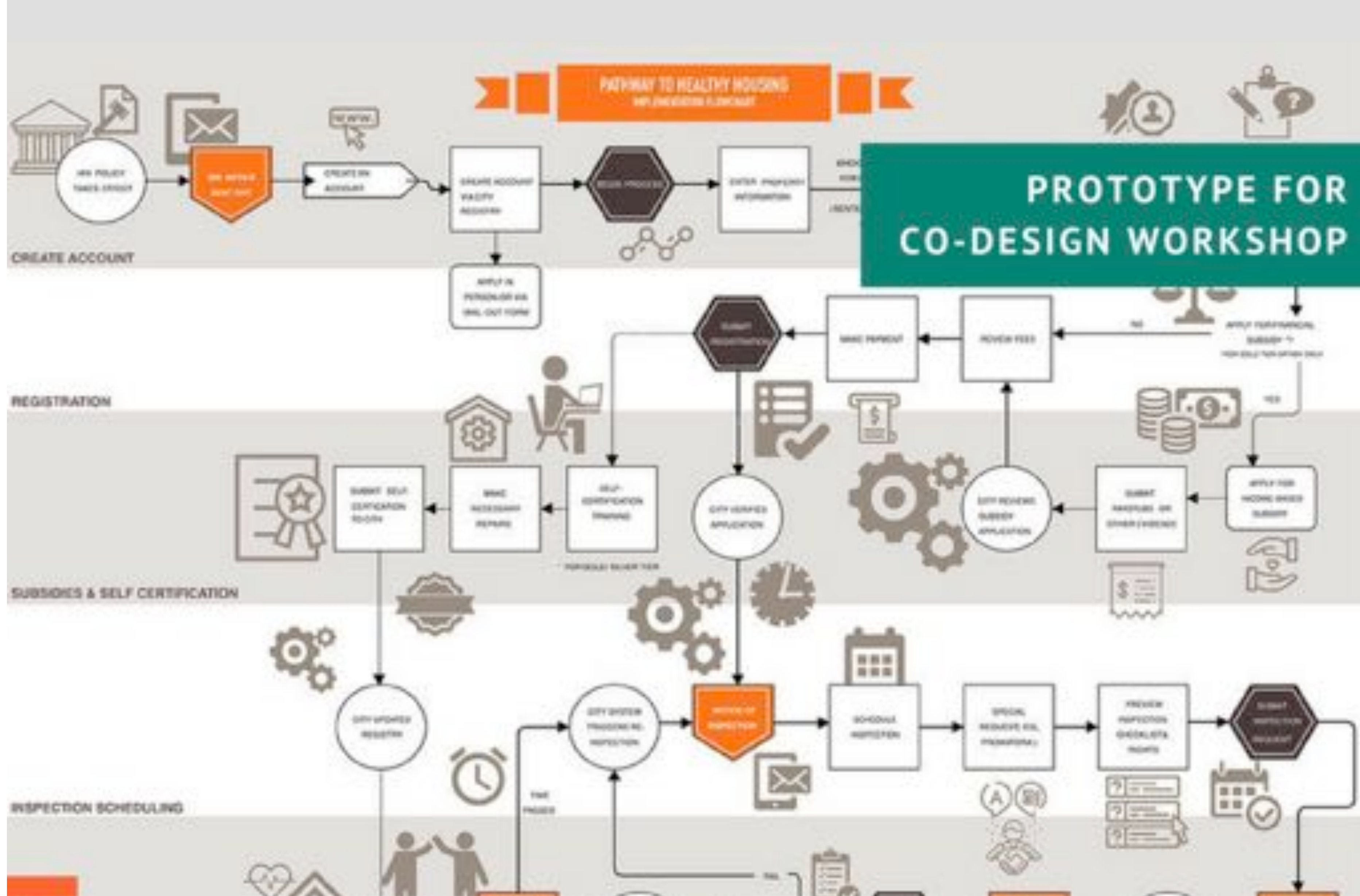
# Staff Discovery Session to Identify Opportunities

## 4. Unlearn Old Habits





# Co-Design: Bringing Stakeholders Together Through Iterative Research Sessions that Build Trust



# Building Service Prototypes to Test Hypothesis

HEALTHY HOUSING INSPECTION PROGRAM

	FINANCING	INSPECTION SCOPE, SELF-CERTIFICATION	SERVICES LOANS, EDUCATION, SUBSIDY	OVERSIGHT REPORTING, METRICS
 <b>Gold</b>	<p><b>\$80</b> per unit / year</p> <p><b>\$350</b> per inspection split 50/50 PO &amp; Renters</p>	<ul style="list-style-type: none"> <li>Rental registry management</li> <li>Healthy Housing Scope per Sacramento Inspection</li> <li>Self-Certification Option</li> <li>Education &amp; Training</li> <li>Promoters / Case Worker</li> <li>Inspection cycle: 5 years</li> </ul>	<p><b>POLICY PROTOTYPE AS HEALTH INSURANCE</b></p> <ul style="list-style-type: none"> <li>\$5 for Acquisition / Rehabilitation</li> <li>\$5 for Displacement Assistance</li> </ul>	
 <b>Silver</b>	<p><b>\$40</b> per unit / year</p> <p><b>\$250</b> per inspection split 50/50 PO &amp; Renters</p>	<ul style="list-style-type: none"> <li>Rental registry management</li> <li>Healthy Housing Scope per Sacramento</li> <li>Self-Certification Option</li> <li>Promoters / Case Worker</li> <li>Inspection cycle ranges 1-3-5 years targeted by past history</li> </ul>	<ul style="list-style-type: none"> <li>Education including: update on City website, workshops by district, online self-certification course w/ explain video</li> <li>\$5 for Acquisition / Rehabilitation - online forms</li> <li>Protect against displacement by way of ordinance changes</li> </ul>	<ul style="list-style-type: none"> <li>Ad hoc committee (convenes quarterly) appointed by community</li> <li>Real time dashboard</li> <li>Other interventions as appropriate to answer our goals of HH; What does success mean?</li> </ul>
 <b>Bronze</b>	<p><b>\$20</b> per unit / year</p> <p><b>\$150</b> per inspection split 50/50 PO &amp; Renters</p> <p><b>\$100</b> certification / yr</p>	<ul style="list-style-type: none"> <li>Rental registry management</li> <li>Limited Scope Inspection based on life safety priorities</li> <li>Self-Certification Option for Property Owners</li> <li>Property Owner must attend Property Owner Training School</li> <li>Inspection cycle ranges 1-3-5 years targeted by past history</li> </ul>	<ul style="list-style-type: none"> <li>Education including: update on City website, City Hall workshops, online self-certification course w/ explain video</li> <li>\$5 for Acquisition / Rehabilitation - online education materials</li> <li>Protect against displacement by way of ordinance changes</li> </ul>	<ul style="list-style-type: none"> <li>Reports annually to Code Enforcement Department</li> <li>Quarterly updates on progress</li> <li>Other interventions as appropriate to answer our goals of HH; What does success mean?</li> </ul>



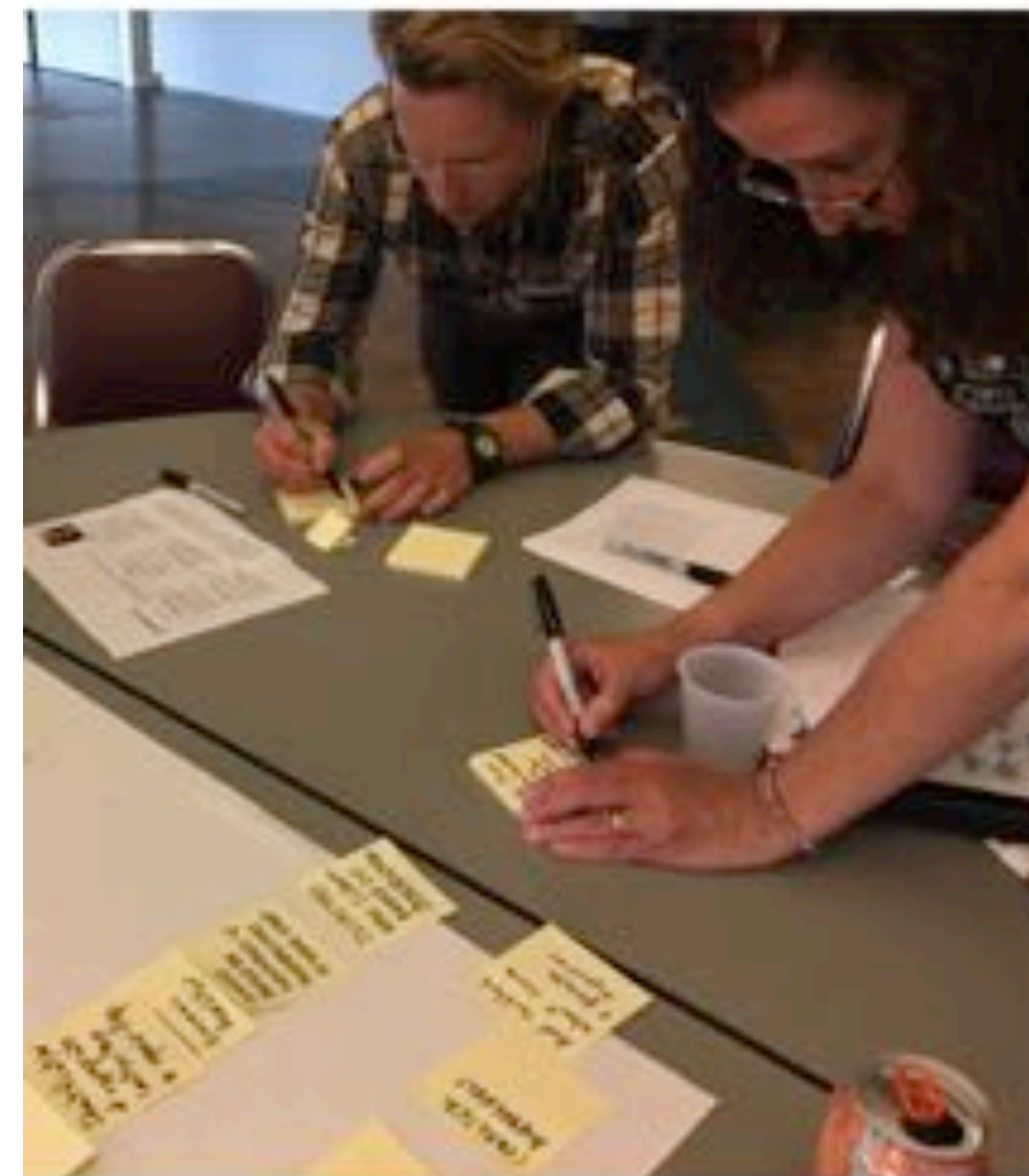
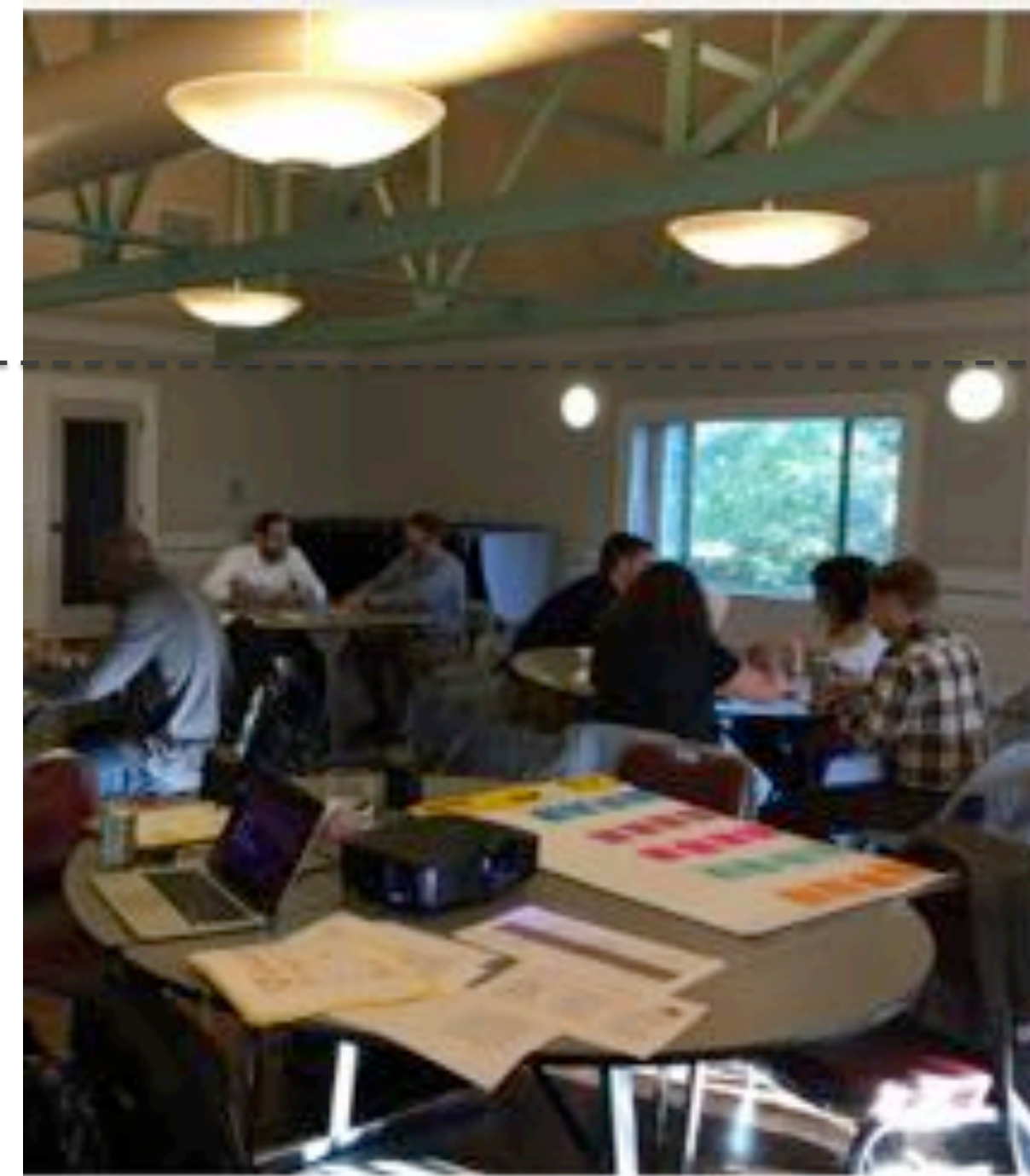


# Empathy Through A Dialogue

- **Modeling Transparency:** co-design is an opportunity to build capacity for innovation through collaboration and cohesion amongst participating stakeholders.
- **Creating Journey Maps:** user stories to build empathy and simulate a resident navigating a proactive inspection process end-to-end.
- **Designing Conversations:** asking community leaders to imagine what healthy housing program might look like in their own neighborhoods.


# Key Findings

- **Concerns regarding support services:** concerns focused on protections for renters from eviction stemming from code violations or rehabilitation as well as education and financial assistance for property owners.
- **Distrust in inspection process:** recurring concerns surrounded the City's current ability to enforce existing policies as well as the need for an oversight committee or team to track HHI efforts.
- **Semantics:** the terms 'proactive', 'enforcement', 'inspection' conjured up negative connotations and expectations of the residents being in the wrong.



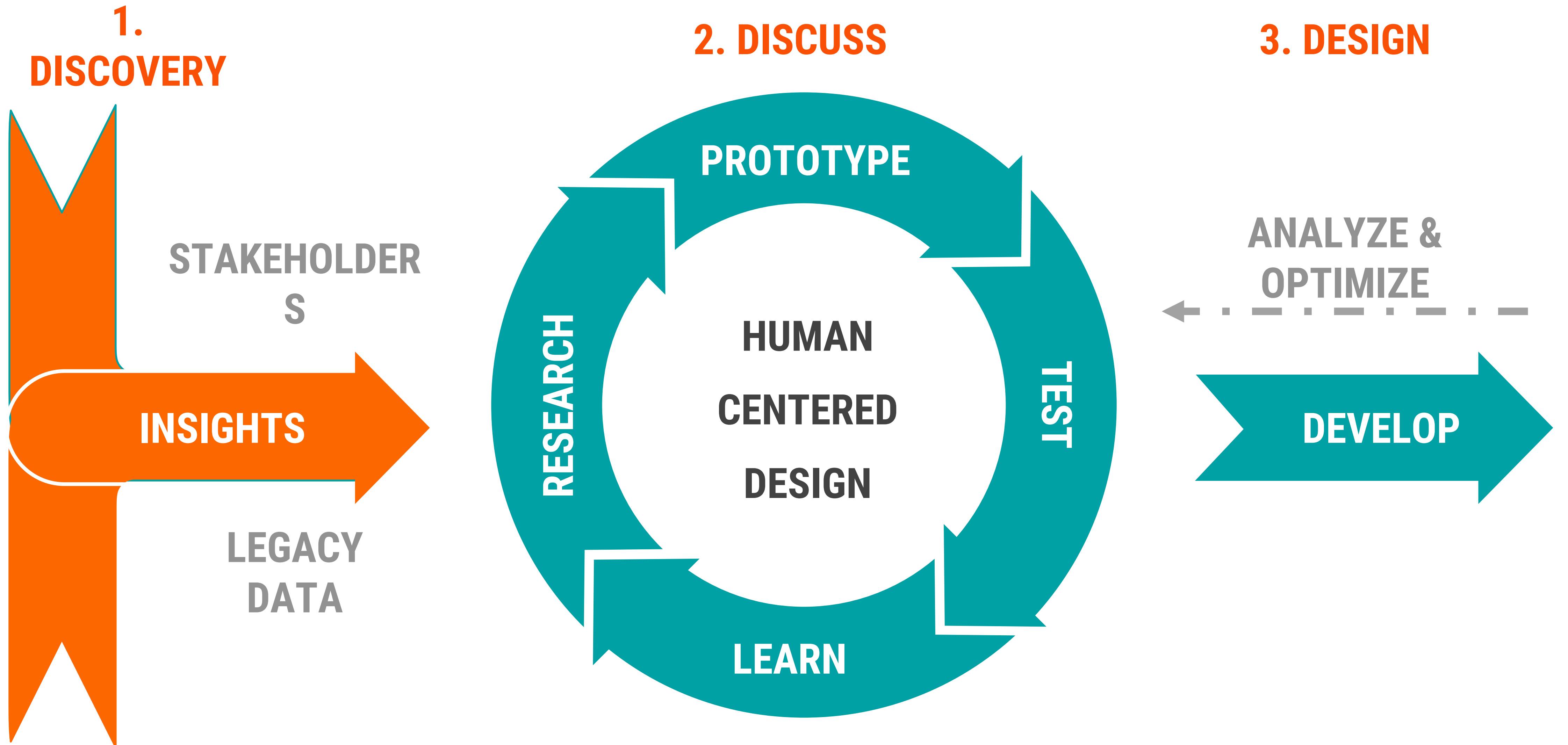
# 5. Revisit the *Status Quo*

# Service Improvement



creating opportunities for inclusion and equity

# Service Design Process





# Oakland Youth Jobs Opportunity



**7th** highest income **inequality** in the nation

OUSD is California's **most improved** urban school district, but its graduation

rate of **63%** lags behind the average graduation rate of

**80%** for California

**143,000**

more jobs forecasted by **2020**

**29,000**

**new jobs** were added in the East Bay from 2015-2016, but unemployment rate for POC remain high

**35%** of children live in households receiving **public assistance**

Data: City of Oakland Housing and Community Development Department 2015; City of Oakland Housing Cabinet 2016



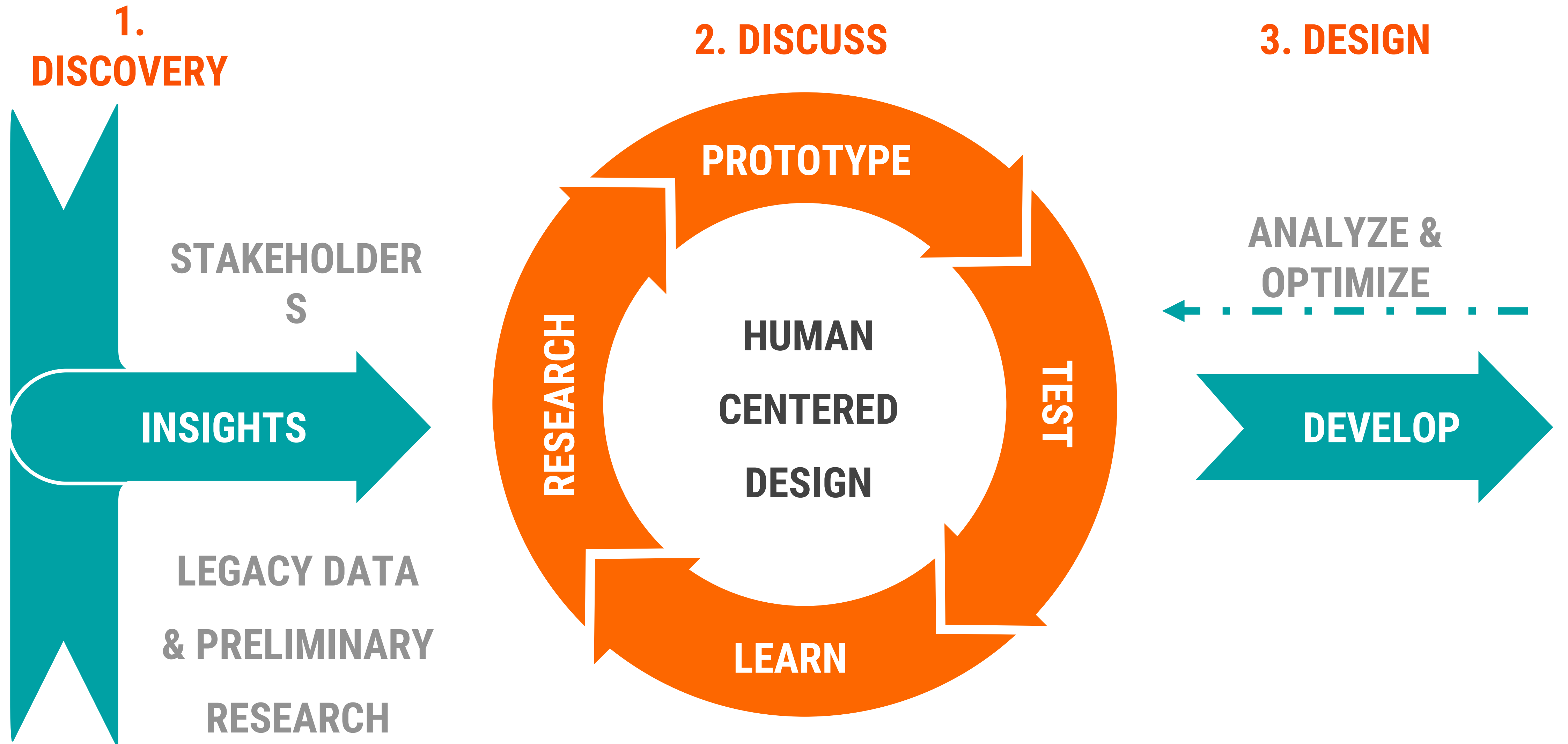
# Listening Sessions with Strategic Partners & Staff

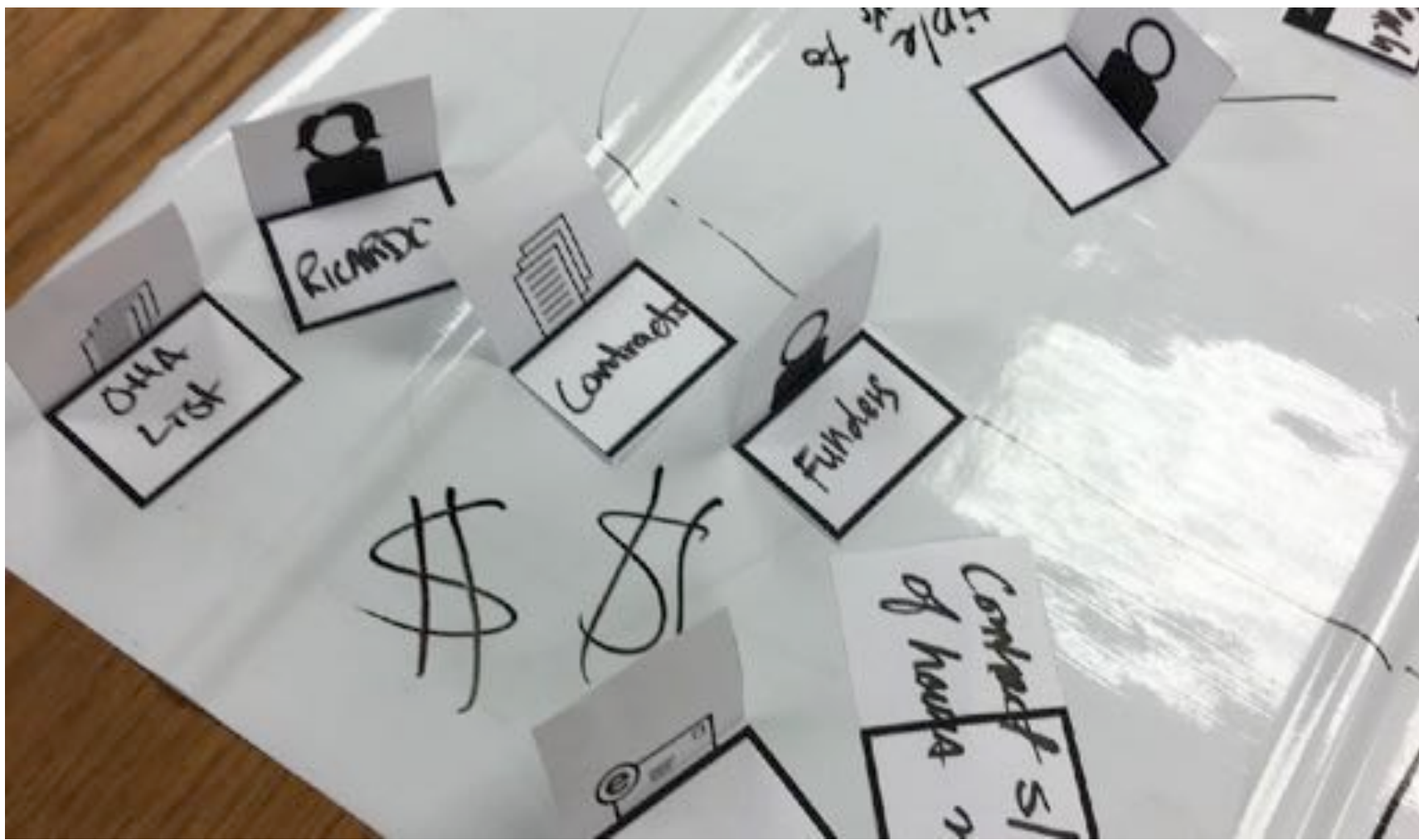
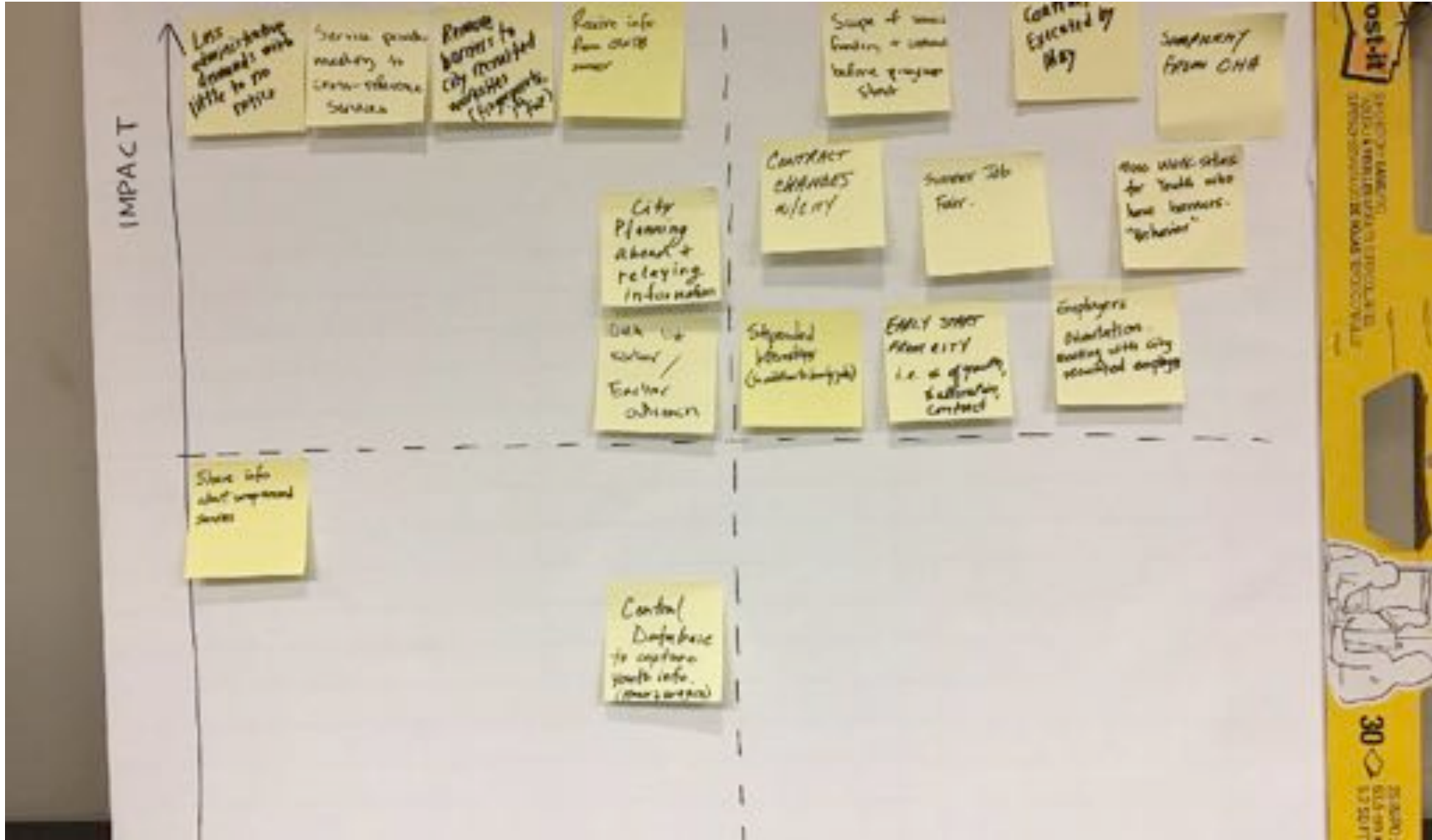
## 6. Empathize With All Users



# Listening Sessions with Local Youth

# Service Design Process



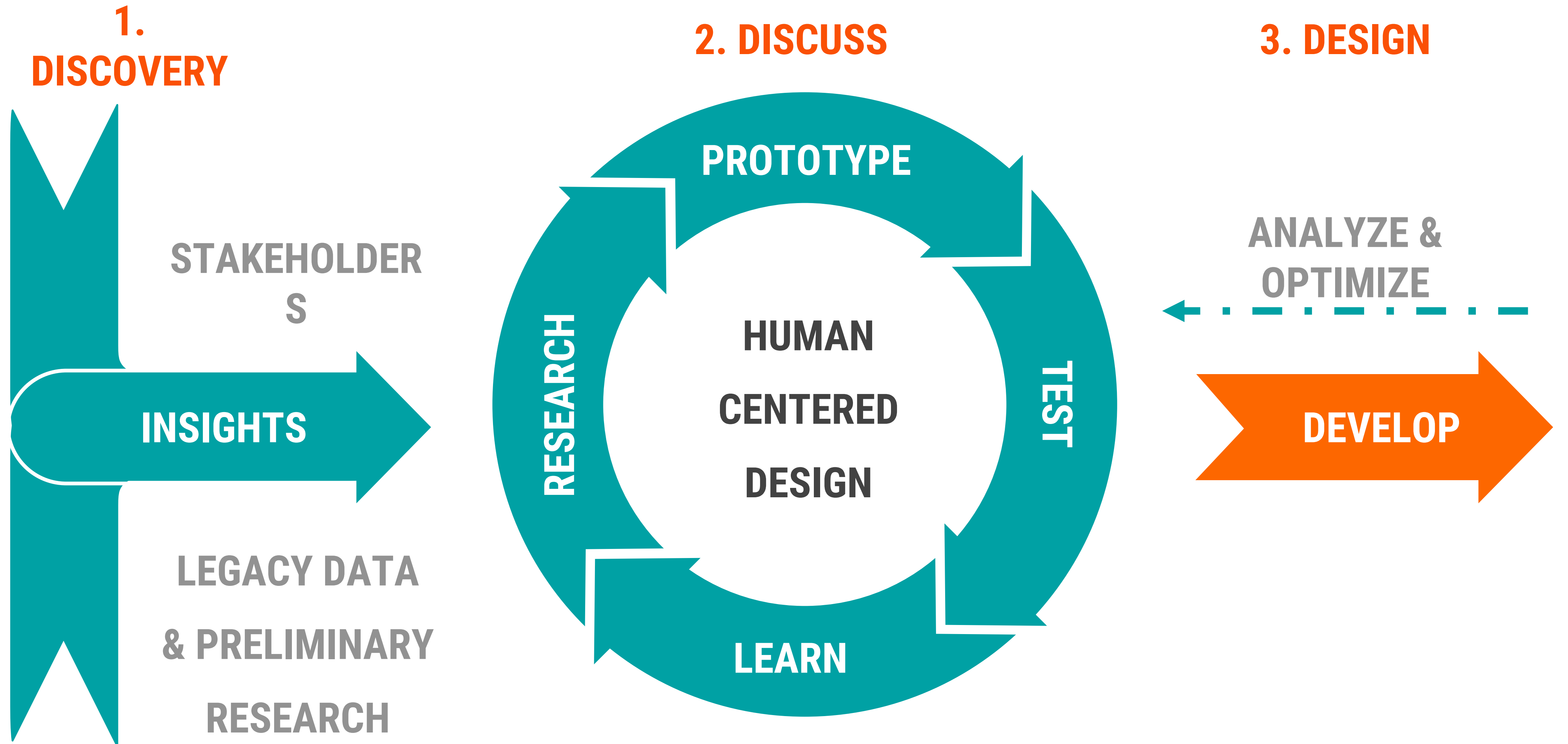


# Working Sessions with City Staff and Service Providers

# Iteration #10+ Mapping the Youth **Enrichment** Journey



# Service Design Process





# 7. Democratize Decision-Making

# Youth Interface for Financial Empowerment: Oakie

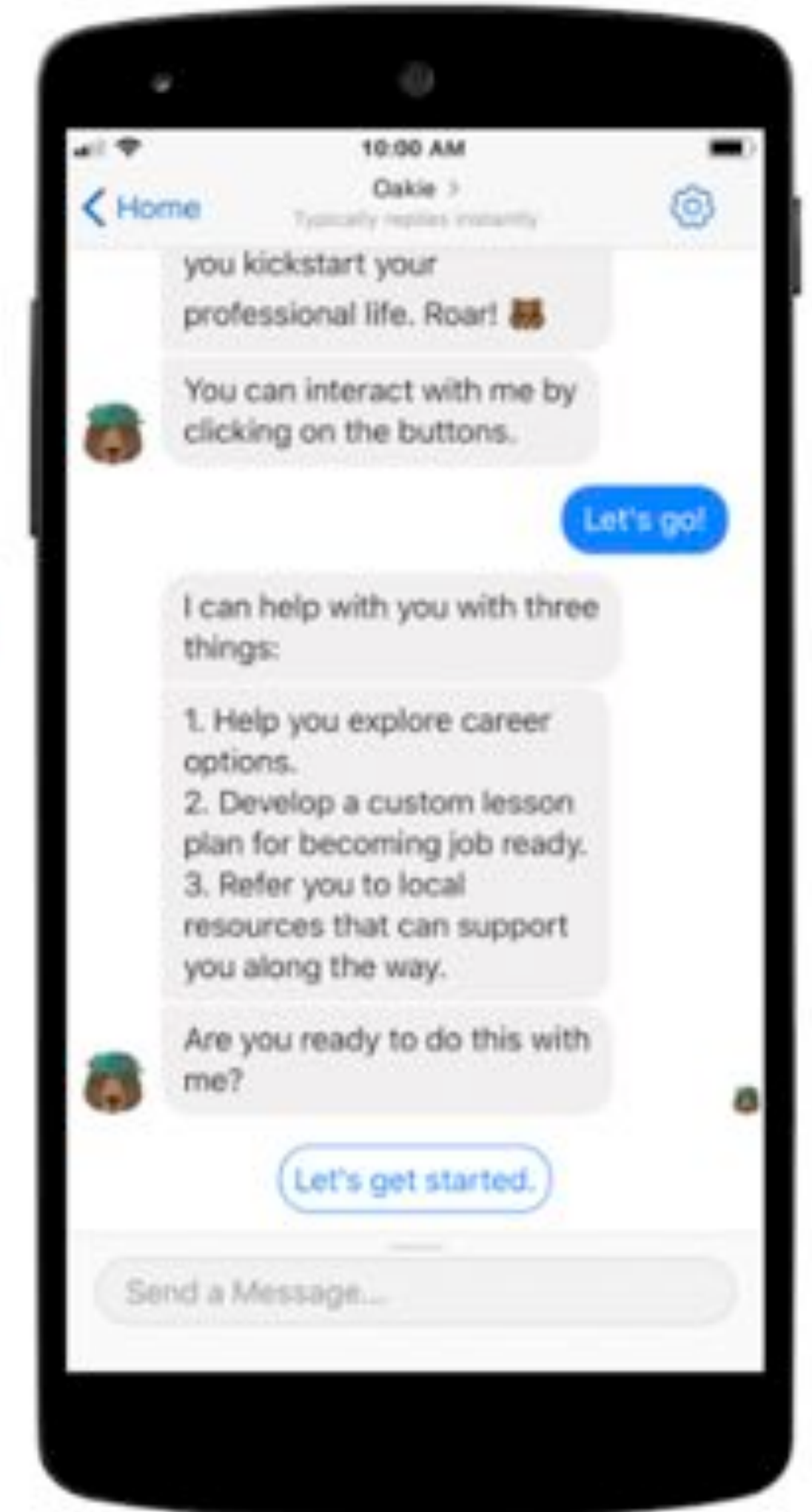
• CDL is **going to where youth are:**

• Instagram

• Snapchat

• Facebook

• Twitter



# Design Leadership Call-to-Action

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- **Challenge assumptions**
- **Take Ownership**
- **Think long-term**
- **Unlearn Old Habits**
- **Revisit status quo**
- **Empathize with all users**
- **Democratize decision-making**

# Thank You

**[info@civicdesignlab.org](mailto:info@civicdesignlab.org)**

[www.civicdesignlab.org](http://www.civicdesignlab.org)