

Driving Systems-Level Change in the Housing Production System

Increasing Supply, Driving Down Costs, & Setting the Table for a
More Affordable Future

Presented by:

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Fellow – Housing Innovation
Renaissance Philanthropy

July 14, 2026



Destination

1. What roles do HFAs have in the system of housing production?
1. What innovations are out there that are relevant to your work?
1. What would you do with \$1 million?



Roadmap

1. Seven years ago
2. The reality today
3. Systems -level change
4. Renaissance Philanthropy & the Housing Abundance Philanthropy Fund
5. Housing Production Value Chain
6. Innovation Catalog
7. Discussion

 |

Background

2002 - 2008
Baltimore

Developed over 100 units of infill housing in

- Housing development and operations is really hard, filled with unknown risks, takes a long time, and being a good actor is not rewarded

2008 - 2019
Partners

Led Innovation at Enterprise Community

- Subsidies could only do so much – we need the market to behave more rationally and productively
- Low-incentives for first-movers in the public and private sectors
- Project financing is appealing because it's easy to measure outputs
- How to activate high-risk capital (venture) to solve problems in the housing market

2019 - 2026

HousingTech Ventures

- Working with early-stage companies creating solutions for the housing market
- 2 years at GSA looking at government buildings for housing conversions
- HUD report on barriers to the uptake of offsite construction



Innovation and What It Means for State HFAs

A Discussion Session Amongst HFA Executive Directors

**Navigated by:
Matt Hoffman
Innovation Ventures, LLC**

July 16, 2019

What Drives Innovation?

Innovation Culture

What are the most important **enablers of innovation**?

#1

Leadership
Support

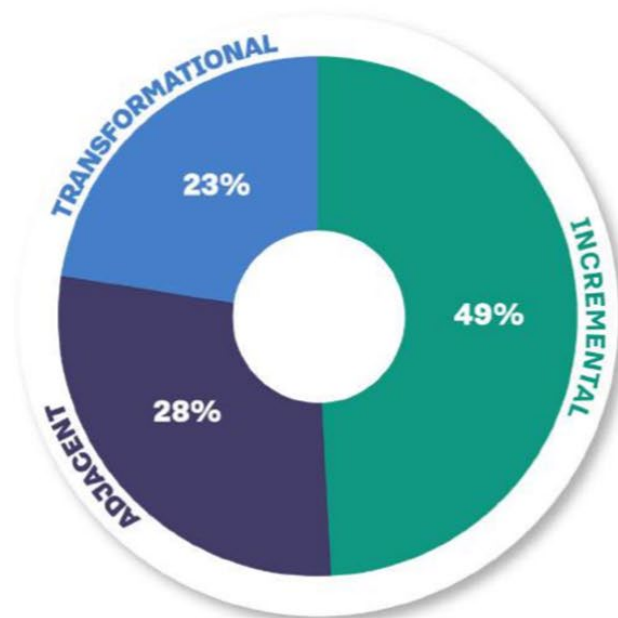
#2

Ability to Test,
Learn, Iterate

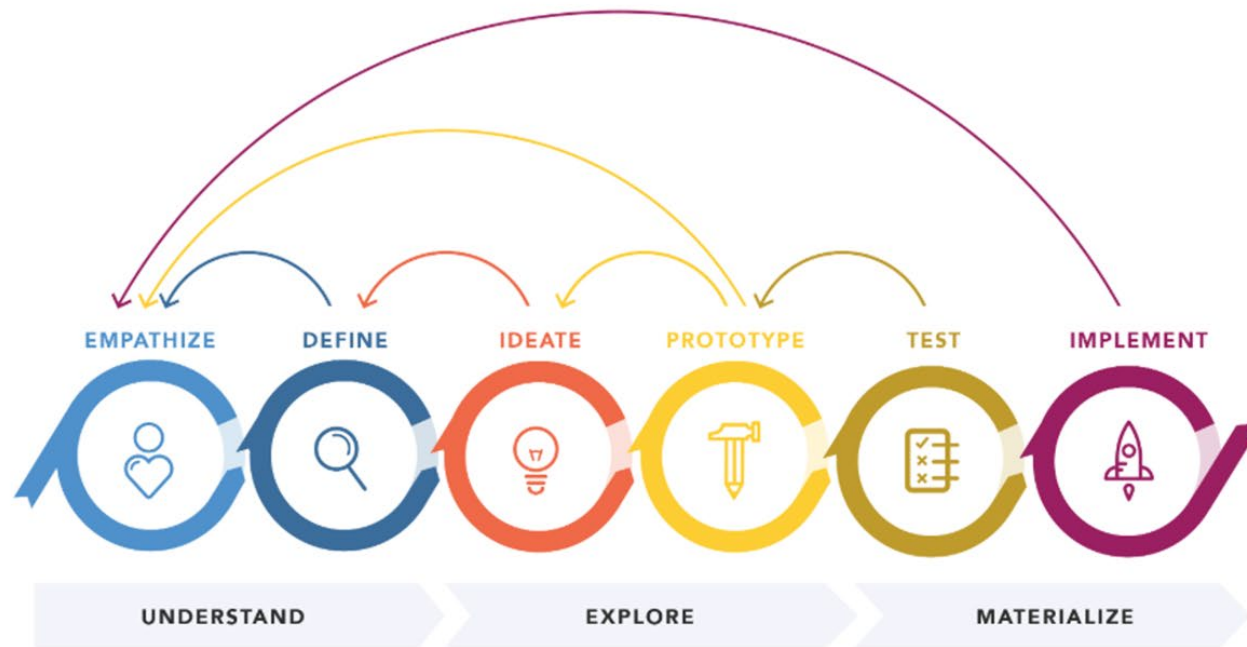
#3

Correct Team,
Employees

Innovation Focus



Rapid Prototyping, Small Bets, Feedback Loops, Fail/Learn Fast



Innovating for Affordability



1. Commit to innovation

- Resources
- Process
- Longevity

2. Give permission to be right 60%

3. Learn fast: measure, assess, pivot

4. Recognize and reward

5. Be bold in vision and diligent in experimentation

Innovation Sprint

*Accessing new sources/types
of capital*

*Deploying capital in new
ways*

New forms of housing

New forms of land use

*New partnerships across
sectors*

*Applying new technologies
to finance and construction*

Using data differently

*Monetizing unmonetized
assets*

Managing/staffing differently

*Accelerating milestones or
deliverables*

*Building public will for more
affordable housing*

 | Where Are We Today 7 Years Later?

2019 - 2026



Housing Cost Burden

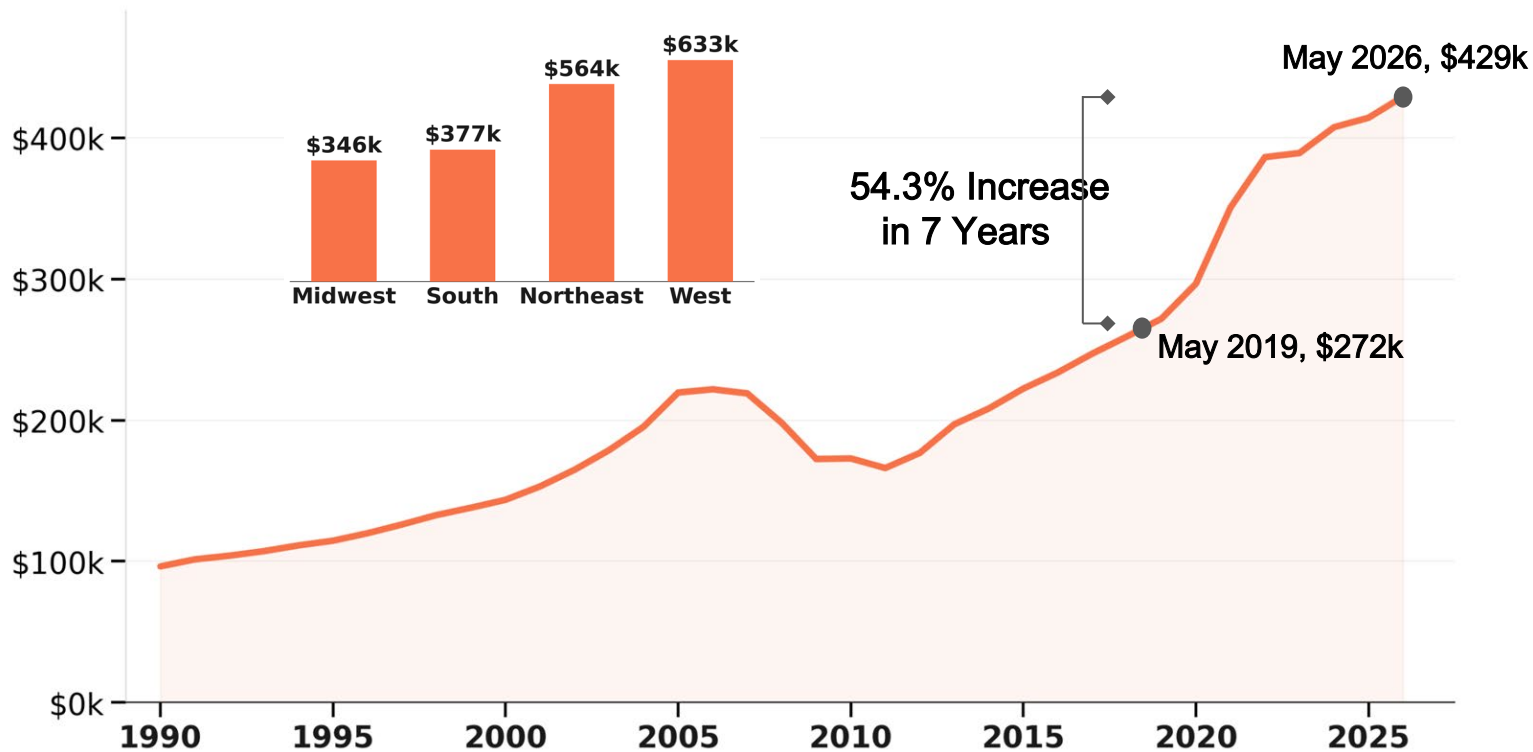
Cost-burdened Households

31.5% (2019) to 34% (2026)

Source: Harvard Joint Center for Housing Studies



Median Existing Home Sale Price



Source: NAR Median Existing-Home Sales Price, annual (YCharts / NAR); May 2026 NAR Existing-Home Sales Report

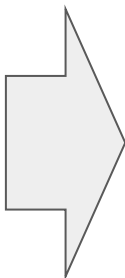


Median Rent

Median monthly residual income
after rent and utilities

\$ 4 10

2019



\$210

2026

Renters earning <\$30,000 per Year

Cumulative Rent vs. Income Growth

Rent growth
2019-2024

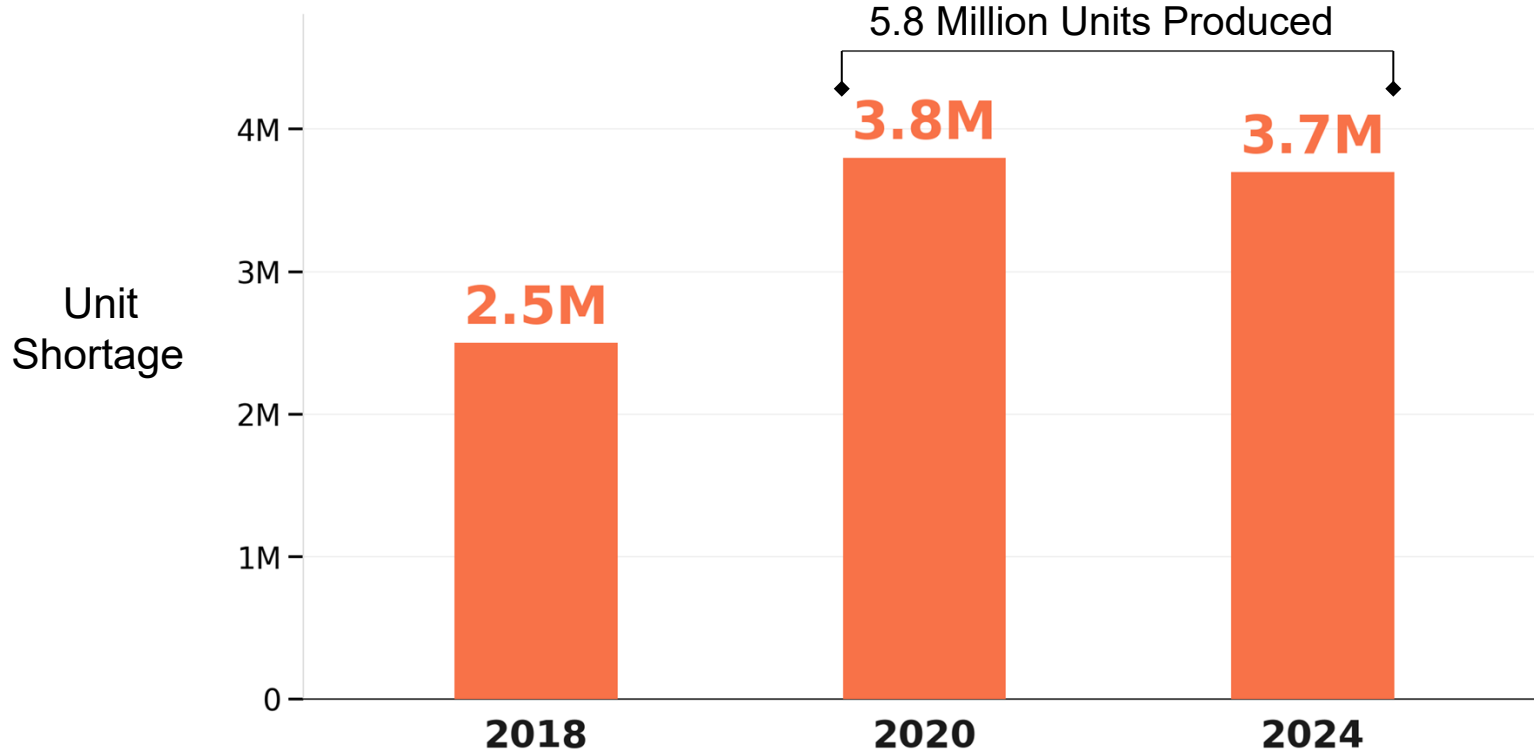
Renter *income*
growth 2019 -2024

12%

4%



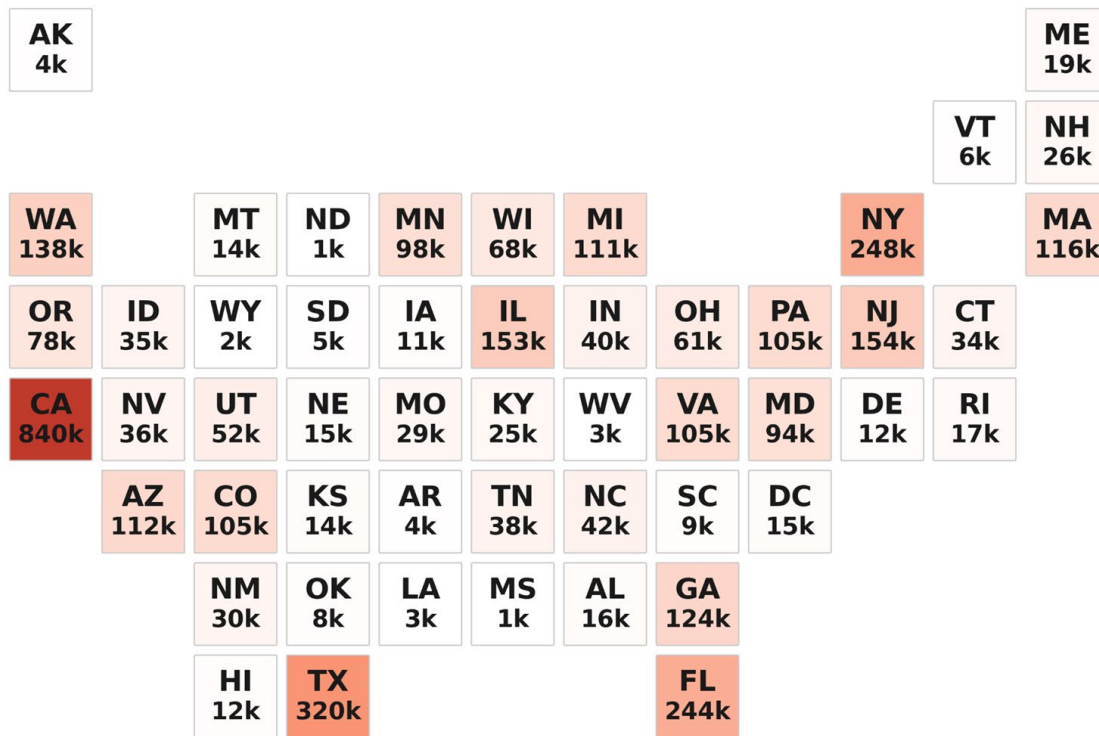
Supply Deficit



Source: Freddie Mac Economic & Housing Research (Dec 2018, May 2021, Nov 2024)



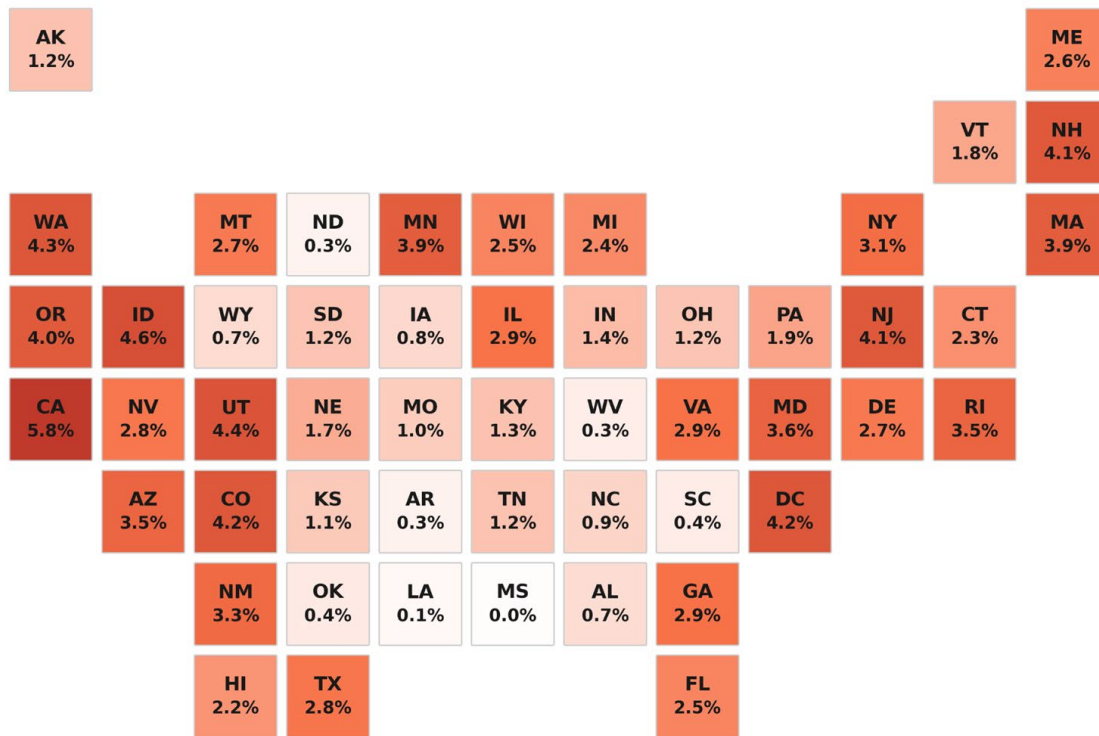
Underproduction ~~3.78M~~ Units Nationwide



Source: Up for Growth, Housing Underproduction in the U.S. 2024 (2022 data)



Underproduction Share of total housing stock



Source: Up for Growth, Housing Underproduction in the U.S. 2024 (2022 data)

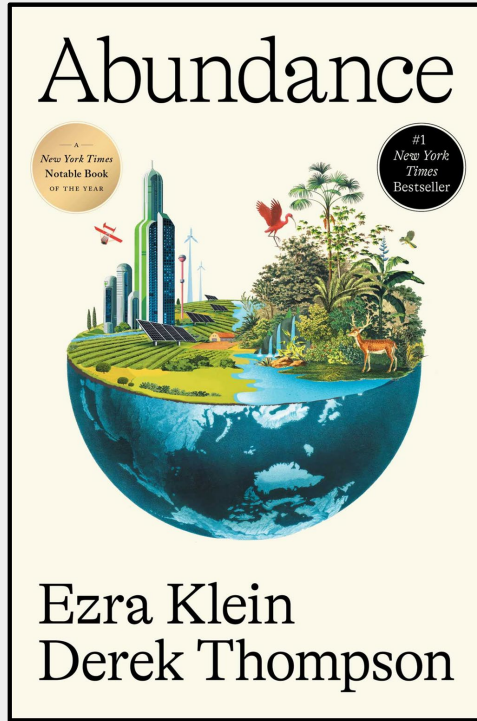


Pessimism

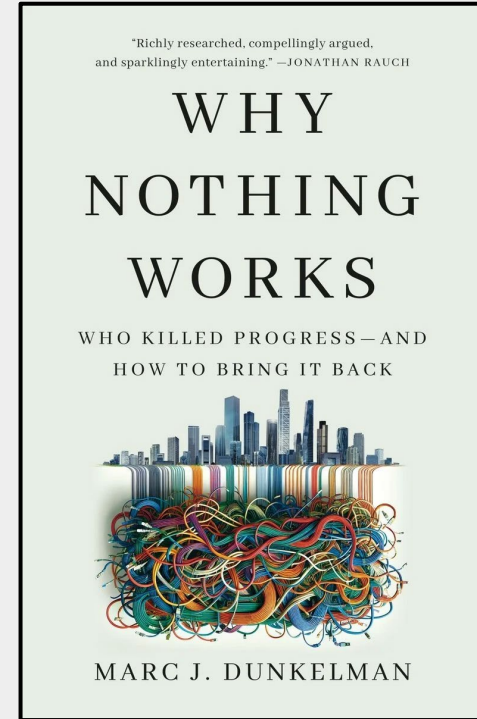
- **73%** of American say right now is a bad time to buy a home
- **62%** of Americans say that buying a home in 2026 is unrealistic
- **1.82M** Millennial and Gen Z adults cannot afford to form their own household
- Only **29%** of non-homeowners under 45 expect to buy in the next 5 years – down from **57%** a decade ago



Shifting Mainstream Thinking



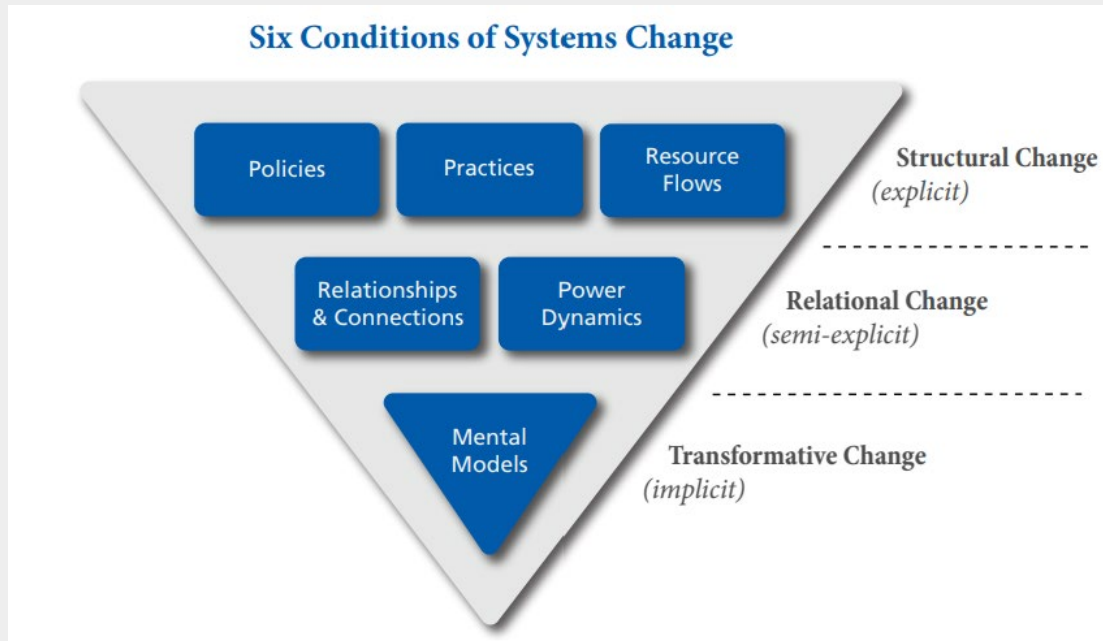
*“**Scarcity is a choice**...to have the future we want, we need to build and invent more of what we need.”*



“No one should be denied an opportunity to voice their opinion on a question that affects them in general or in specific. But neither should voice give any figure the ability to hijack the decisionmaking process altogether.”

From Innovation to Systems Level Change

Key Takeaway: Systems change only sticks if underlying mental models are changed.



Change Your Mind Before You Change the System: Taking a Closer Look at Mental Models and the Water of Systems Change

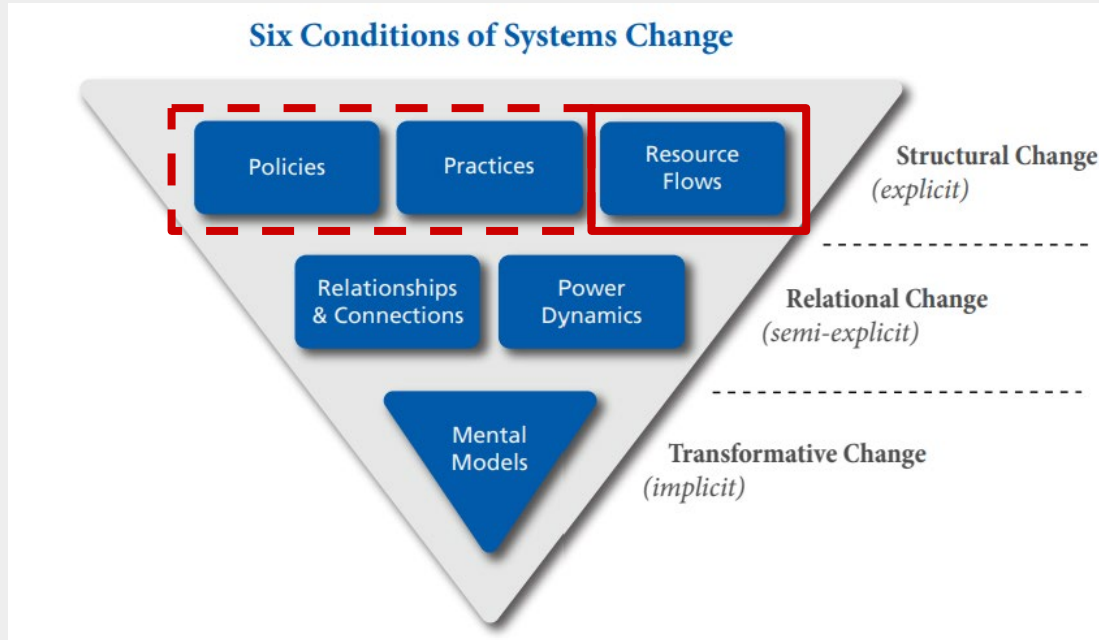
June 29, 2023 | Flynn Lebus, Julie Jeanneret

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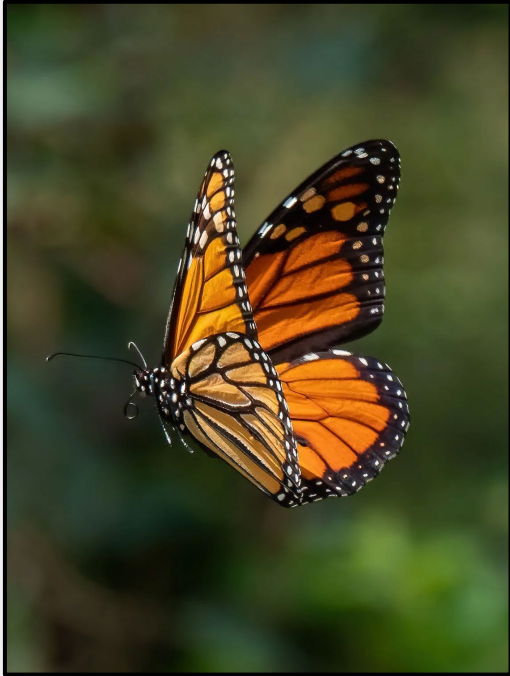
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Define Your “System”



Chaos Theory

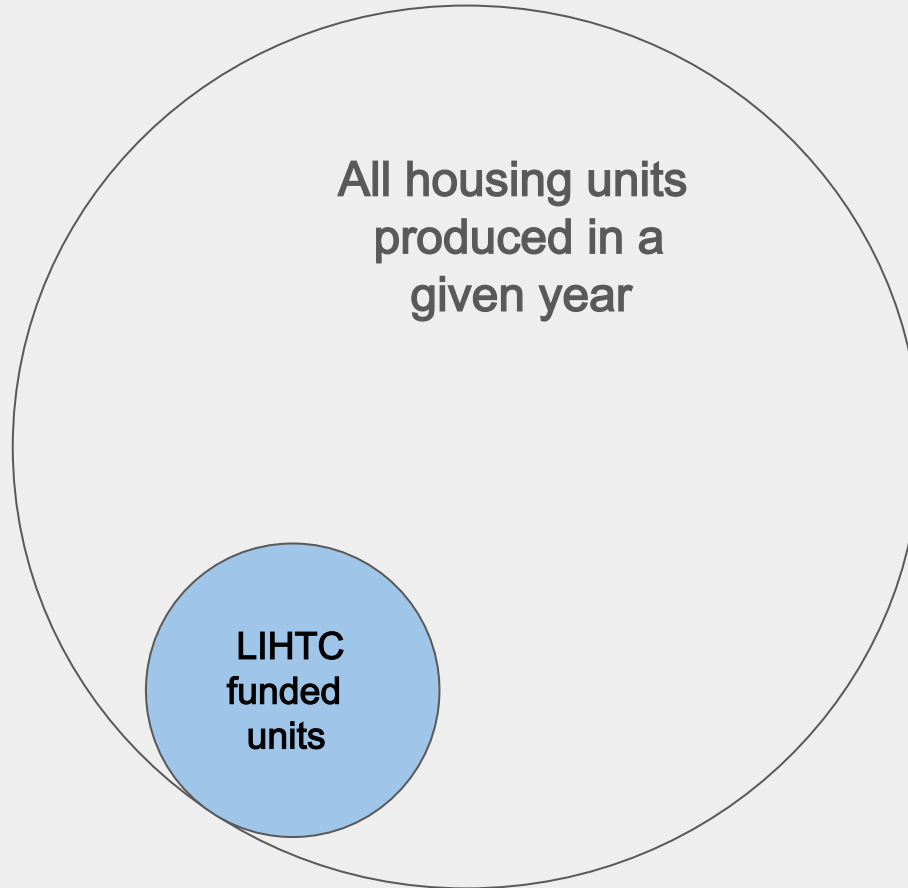
"Does the Flap of a Butterfly's Wings in Brazil
Set Off a Tornado in Texas?" (1972)
—Edward Lorenz



State QAP



Define Your “System”





Housing Production Value Chain

Where
to build?

Siting the Home

LAND · INFRASTRUCTURE · JOBS ·
FUTURE

What
Is legal
to build?

Permitting the Home

LIVABILITY · LIFE SAFETY · HEALTH ·
ENVIRONMENT

How
to build?

Constructing the Home

CAPITAL · LABOR · MATERIALS ·
MARKETS



Housing Production Value Chain

Where to build?	Siting the Home LAND · INFRASTRUCTURE · JOBS · FUTURE	What Is legal to build?	Permitting the Home LIVABILITY · LIFE SAFETY · HEALTH · ENVIRONMENT	How to build?	Constructing the Home CAPITAL · LABOR · MATERIALS · MARKETS
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PATH OF HOUSING PRODUCTION

Stages

1: LAND

2: INFRASTRUCTURE

3: DESIGN

4: APPROVALS

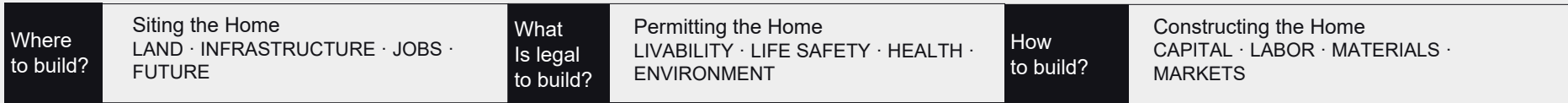
5: CAPITAL

6: CONSTRUCTION

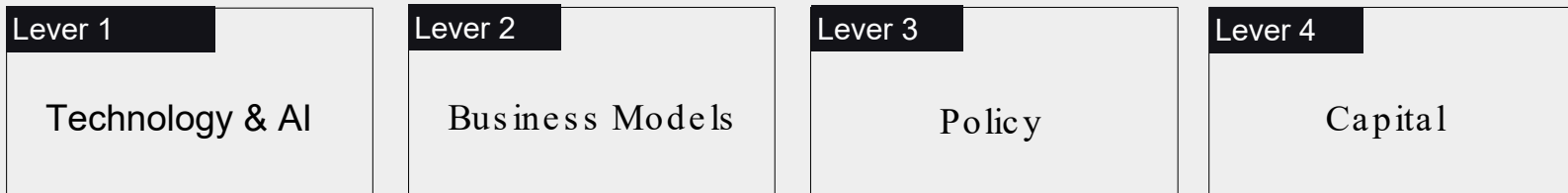
7: OCCUPANCY



Housing Production Value Chain



PATH OF HOUSING PRODUCTION





Housing Production Value Chain

PATH OF HOUSING PRODUCTION

Stages

1: LAND

Pain Points & Friction

*Identifying and
assembling
developable sites*

2: INFRASTRUCTURE

*Roads, water,
power, transit,
schools*

3: DESIGN

*Translating program
into buildable plans*

4: APPROVALS

*Zoning, permits,
building codes,
environmental
review*

5: CAPITAL

*Funding the
project*

6: CONSTRUCTION

*Turning plans and
materials
into structures*

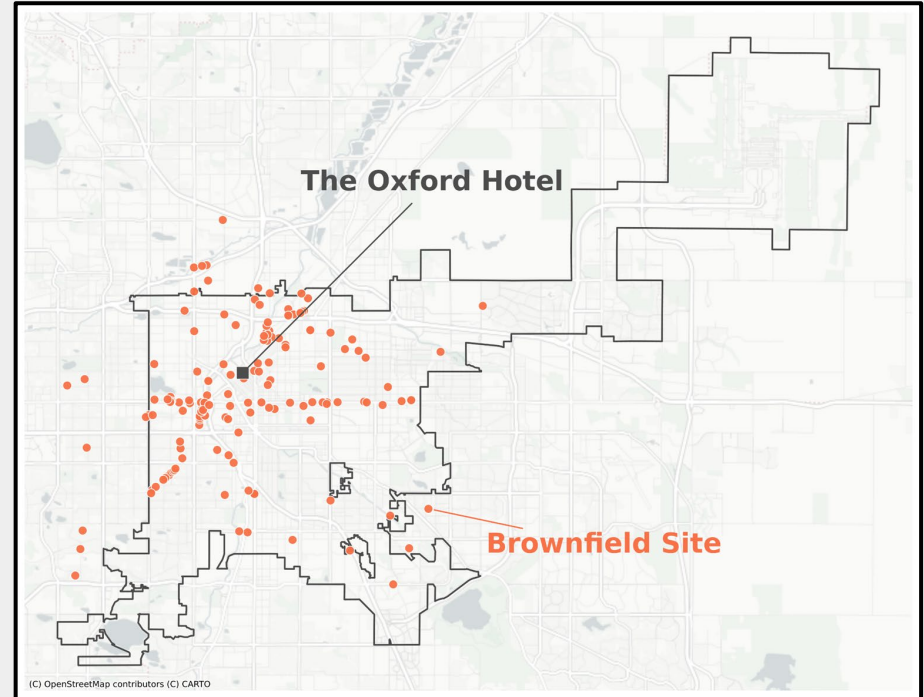
7: OCCUPANCY

*Transacting,
maintaining, and
carrying the home*

PATH OF HOUSING PRODUCTION



- Where is there public-owned land that is undeveloped or under-developed that is already connected to infrastructure?
- Where are lots available for housing development and/or increased density that are being held back from development? How can we put those parcels into play for development?



PATH OF HOUSING PRODUCTION



- How can we get more out of our existing infrastructure to support new home development?
- How can utilities be better incorporated into the development process to ensure that there is sufficient energy and water to support homebuilding?

Up-Front Infrastructure
 Costs **\$21k Lower** Per
 Home When Built Near
 Jobs, Stores, Transit

PATH OF HOUSING PRODUCTION



- How can we transform the design and engineering aspects of smaller “bespoke” projects into more repeatable and scalable components?
- How do we build greater acceptance, even demand, for housing components that are built offsite in factory settings?
- How can we make smaller footprints feel like they live larger?

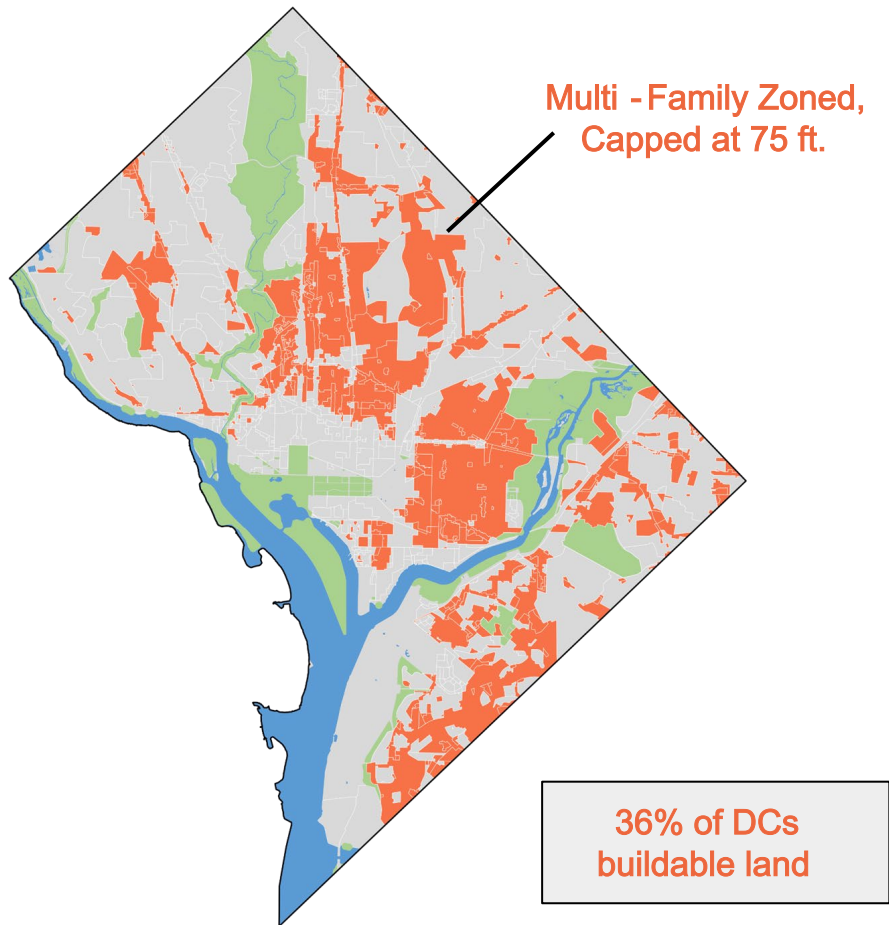
Architectural fees for affordable multifamily housing average **6–10%** of hard construction costs

PATH OF HOUSING PRODUCTION



- How do we simplify zoning so it has a common lexicon across the country and the zoning codes for every jurisdiction are digitized, up-to-date, accessible, and in the public realm?
- How do we streamline and accelerate permitting and inspection processes without sacrificing safety, health, and public interest?







PATH OF HOUSING PRODUCTION



- How do we better price the risk of pre-development and construction capital?
- How do we make that capital more readily available to the smaller and mid-sized builders?
- How can we productize third-party guarantees to unlock homebuilding opportunities?

Residential construction loan volume has **decreased** approximately **56%** from 2008 and 2023

PATH OF HOUSING PRODUCTION



- How can we accelerate the incorporation of innovative materials and processes into homebuilding that satisfy the necessary code requirements while still being new?
- How do we grow the skilled trades to meet the need of the building boom we are calling for?

Katerra Bankruptcy a Cautionary Tale for Construction Technology

A \$1.4 billion bet on modernizing construction is lost.

PATH OF HOUSING PRODUCTION



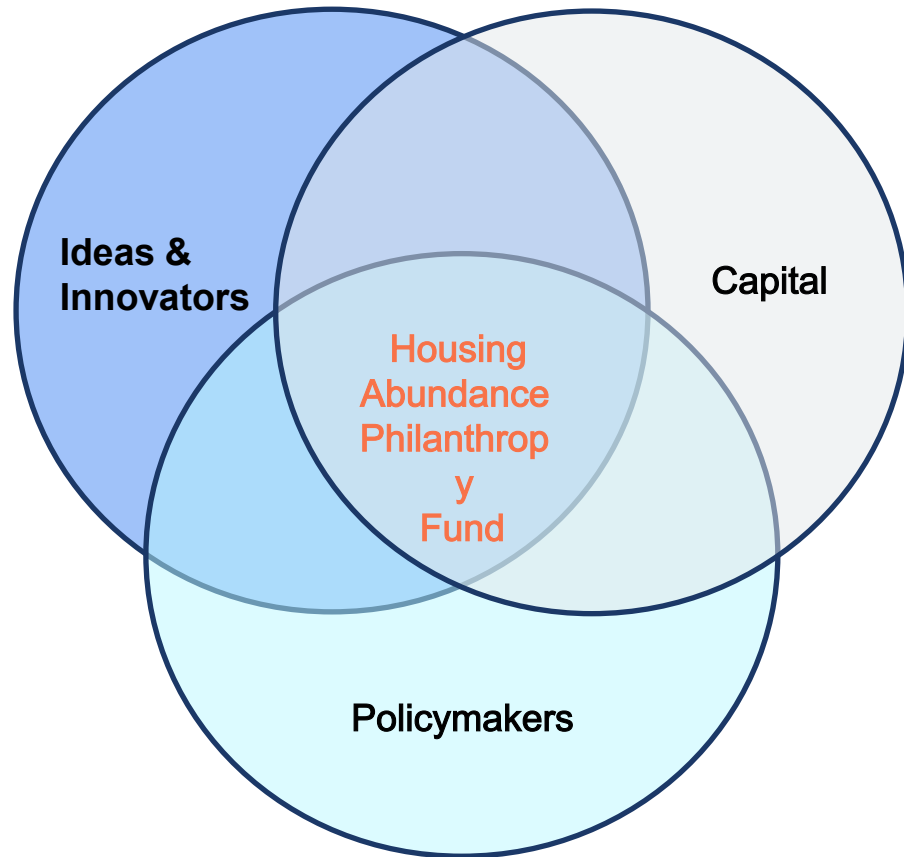
- What rental and ownership models beyond standard leases and mortgages can make occupancy more affordable?
- How do we recalibrate insurance to be priced to actual risk and performance history?
- How do we shift the consumer mindset to the “total cost of occupancy” that captures the true cost of living in a home, not just the upfront cost?

Homeowner insurance premiums have risen **74%** since 2008



Renaissance Philanthropy

The Housing Abundance Philanthropy Fund (HAPF) brings philanthropic capital to support innovative solutions that increase housing supply, unlocking scale through policy implementation and capital catalyzation





HAPF Strategy

- **Aggregate philanthropic capital that is seeking outcomes** , not a financial return, to deploy into a portfolio of unproven, early-stage opportunities that hold high-promise due to the quality and experience of the team, their theory of change, and a reasonable potential pathway to replicability and scale for the proposed solution.
- The portfolio will have some successes and some failures – **high impact requires high risk due to uncertainty of outcomes** .
- **Agnostic to the tax -status or sector of the solution innovator** – the opportunities that HAF deploys capital into may be taxable or tax-exempt entities, academic teams, or even in the public sector.

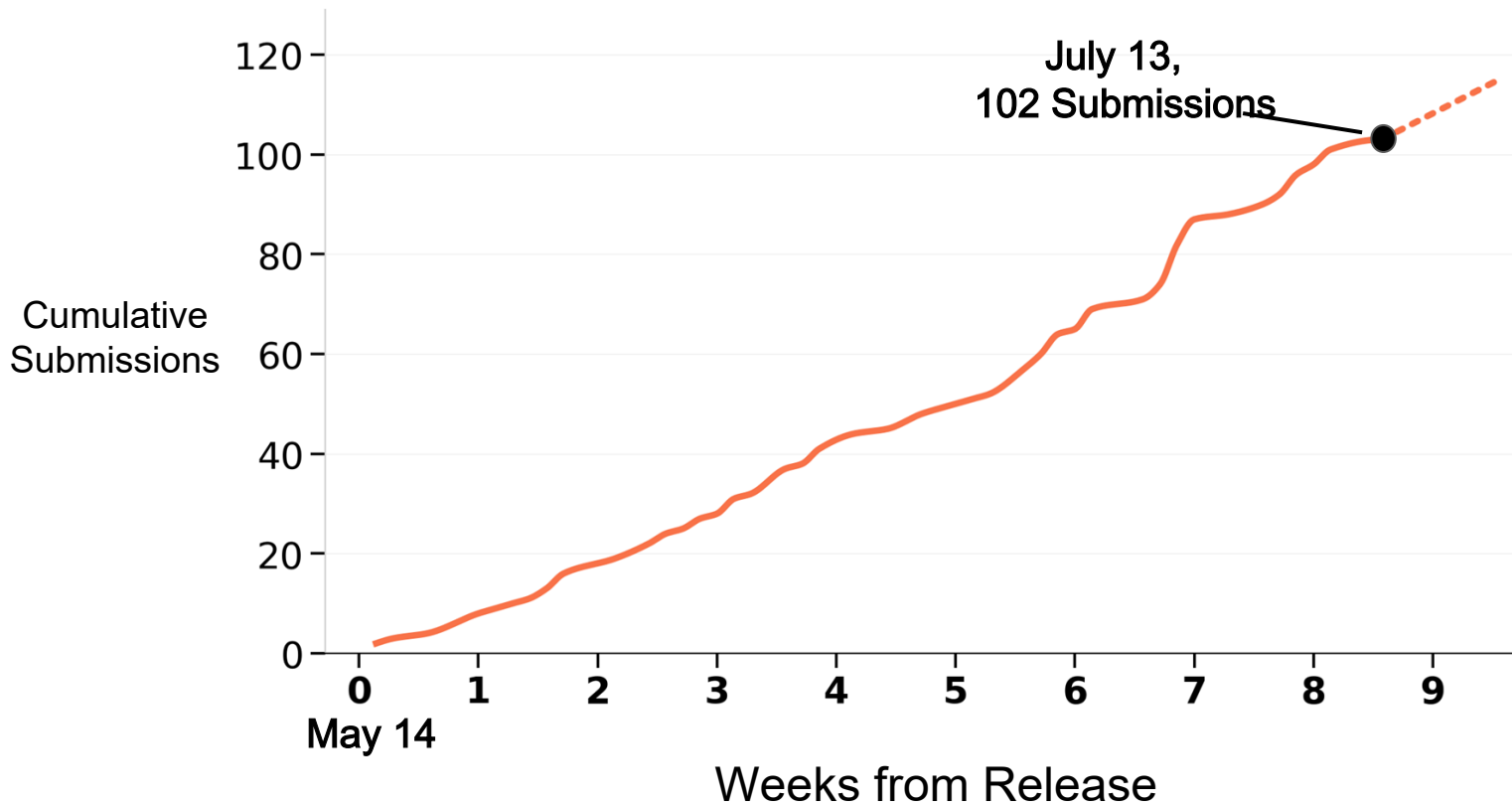


HAPF Policy Advisory Council

- HAPF's grants are amplified through strategic engagement with public sector associations.
- These bodies will provide feedback loops between HAPF ventures and the regulatory/subsidy environment, helping de-risk and mainstream innovation.
- Reports and regular meetings in DC to review pipeline of innovations and investments
- Identify problems that need solutions
- Amplify learnings

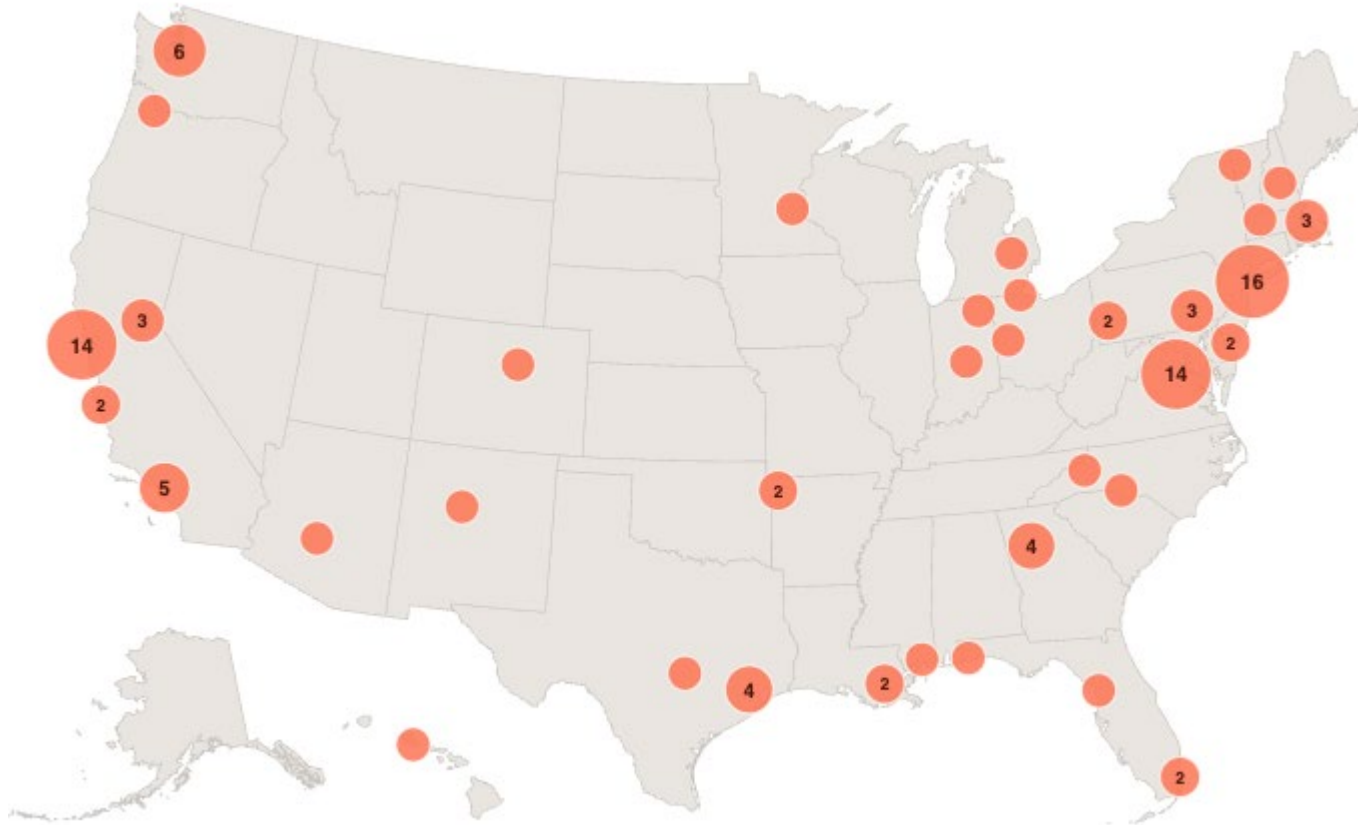


Request for Information Proposals





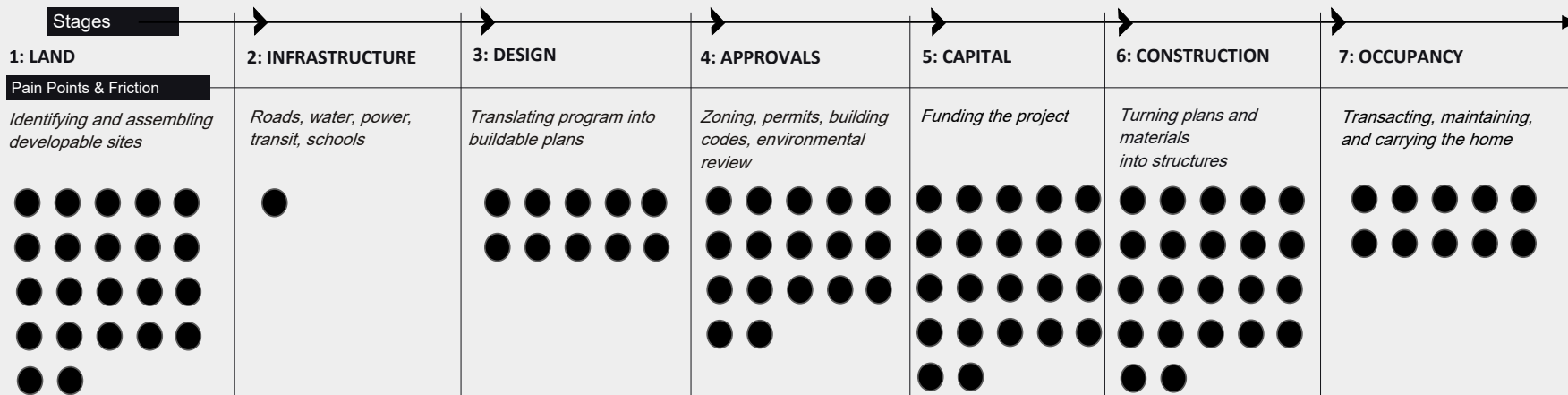
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Mapping Responses

PATH OF HOUSING PRODUCTION



Lever 1

Technology &
AI

Lever 2

Business
Models

Lever 3

Policy

Lever 4

Capital



Mapping Responses

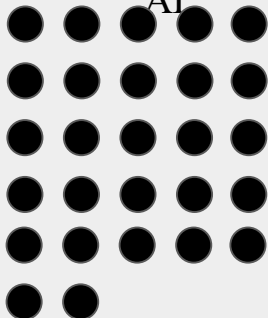
PATH OF HOUSING PRODUCTION

Stages						
1: LAND	2: INFRASTRUCTURE	3: DESIGN	4: APPROVALS	5: CAPITAL	6: CONSTRUCTION	7: OCCUPANCY
Pain Points & Friction						
Identifying and assembling developable sites	Roads, water, power, transit, schools	Translating program into buildable plans	Zoning, permits, building codes, environmental review	Funding the project	Turning plans and materials into structures	Transacting, maintaining, and carrying the home

Lever 1

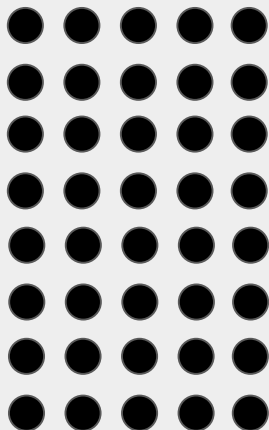
Technology &

AI



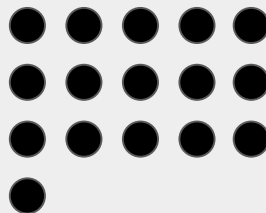
Lever 2

Business Models



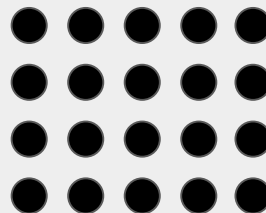
Lever 3

Policy



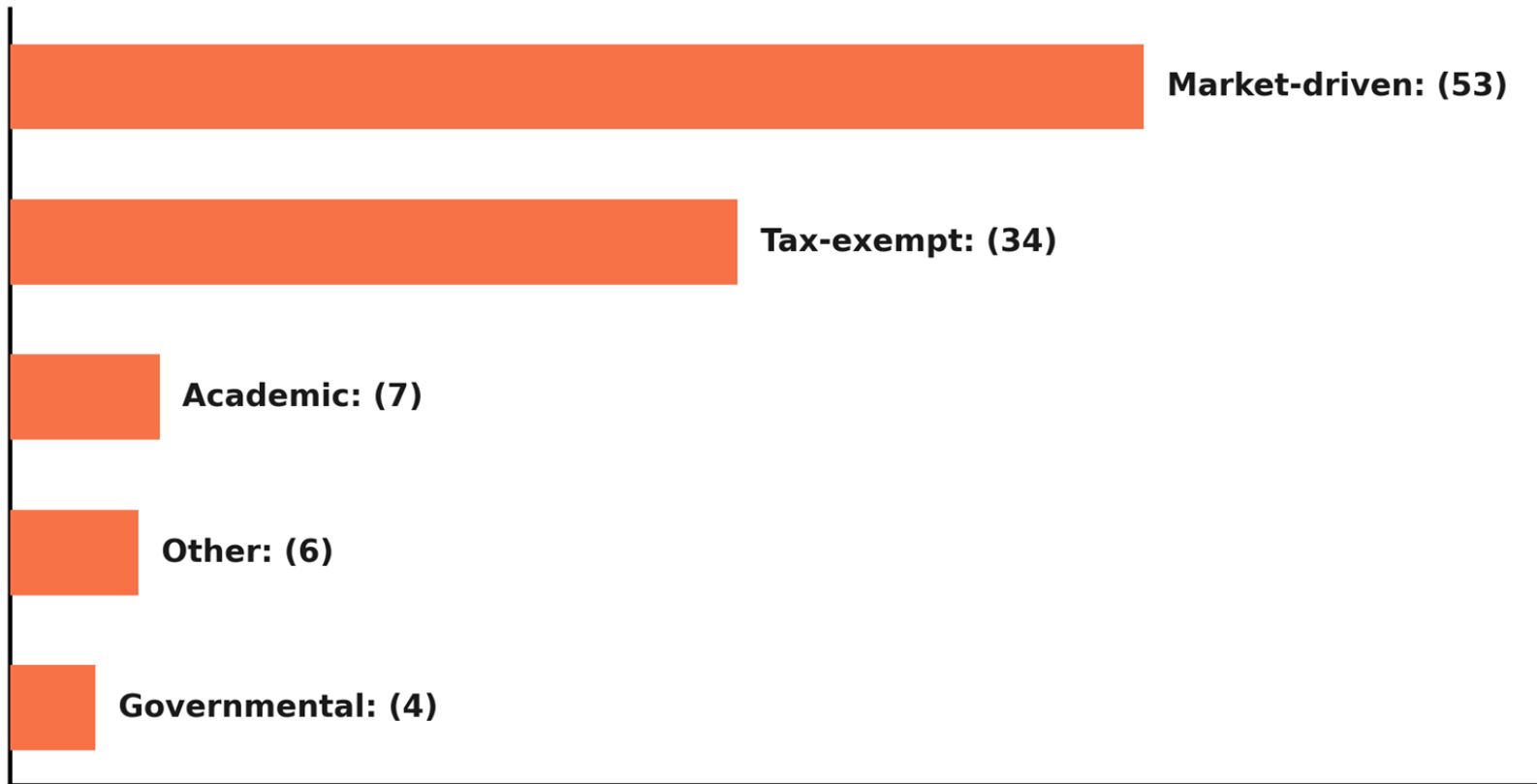
Lever 4

Capital



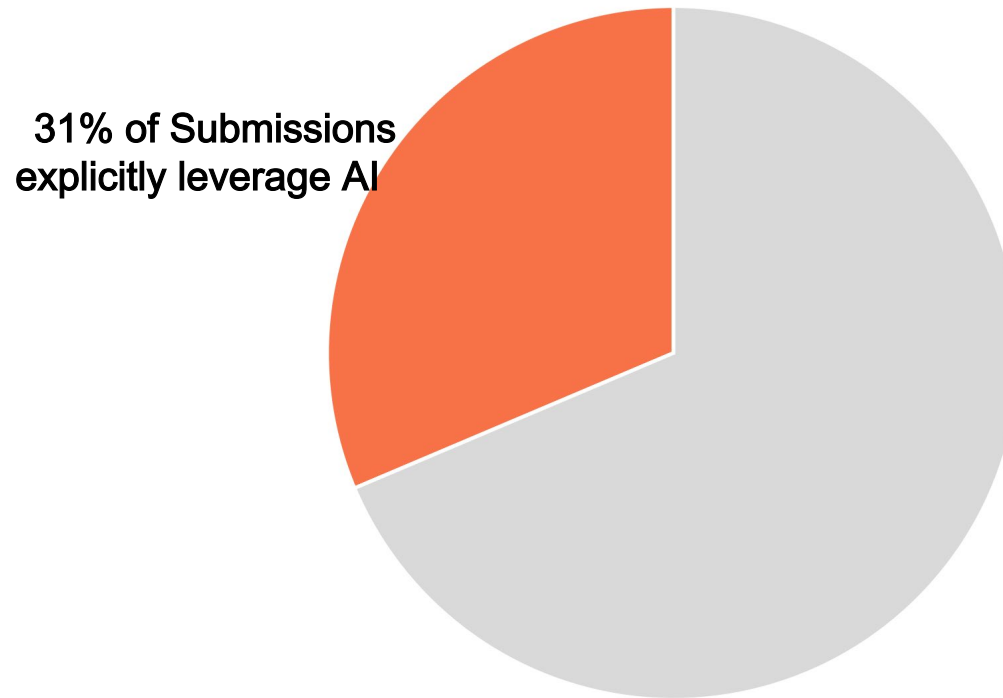


Organization Type





Incorporating New Technologies



1: LAND

The Innovation:



Little Rock, Arkansas

- Puts a commercial land intelligence platform covering 150 million-plus parcels, 45 million land transactions, and 12,000-plus data layers directly into the hands of 15–20 city and county governments at no cost to them, paired with hands-on deployment and a shared measurement framework.
- Use cases: buildable-land inventories, rezoning and YIGBY candidate screens, annexation and infrastructure-extension analysis, surplus-land identification, and public/private partnership sourcing.

2: INFRASTRUCTURE

The Innovation:



Urban Land Institute – Washington D.C.

- National market-screening tool and “heatmap” identifying every U.S. housing market where grid capacity constraints delay development
- Open data allows developers to commit to usage flexibility in exchange for faster and cheaper grid connections

Activation: Convene a national working group to publish the open standard, launch 2 -3 pilots to test the approach

3: DESIGN

The Innovation:



HomeForward – New Haven, CT

- Stand up a resource center with standardized designs for multifamily buildings and end-to-end guidance for small property owners
- Partner with municipalities to develop as-of-right approvals and accessible libraries of pre approved plans

Activation: Launch a pilot across 25 sites in CT, generate the design and regulatory data to make the model exportable

4: APPROVALS

The Innovation:



Dirt AI – Boston, MA

- AI platform that ingests parcel-level regulatory data and provides synthesized outputs of build possibilities
- Provide developers via local governments with a tool that ensure complete, correct applications to drastically reduce submission errors

Activation: Deploy DirtAI with three pilot jurisdictions and run a 12-month live capacity test

5: CAPITAL

The Innovation:

MAYOR'S FUND
TO ADVANCE
NEW YORK CITY

Neighborhood Compute – New York, NY

- Convert vacant ground floor commercial space in multifamily buildings into edge data centers
- Waste heat from data centers is recycled to heat and cool the building, reducing resident costs

Activation: Fund the feasibility study and program management to validate the model

6: CONSTRUCTION

The Innovation:



Center for Offsite Construction – NYC

- Create open interface standards for pods and panels
- USB-C equivalent that allows for plug and play across different manufacturers of bath pods, kitchen pods, and other offsite constructed components

7: OCCUPANCY

The Innovation:

Heron

ReVisioning Home – Bethesda, MD

- Convert distressed rental properties
- Reprogram embedded public debt like HOME loans into down payment assistance and rehabilitation financing
- Current tenants purchase renovated units at or below rent

Activation: Vet 15 -20 properties and advance predevelopment on approximately 500 units



Discussion

What would you do with \$1 million?

How can we solve your friction and pain points?

What systems-level challenges are a priority for you?

What is the best way to work with HFAs to introduce findings and learnings as we work with innovative pilots and prototypes?

Are there opportunities to support systems-level work that is already underway?

What is your ask of philanthropy?