

# CONFIDENTIAL Presentation for Interested Funding and Strategic Partners

A Return-on-Investment Approach to Affect Pre-  
Disaster Related Risk Mitigation  
for Private, Philanthropic, and Public Sector Impact



# Resilience Challenges:

## “Risk Mitigation” As Common National Theme

- Drought
- Storm and Flood
- Fire
- Spills and Leaks
- Earthquake
- Cyber/Operation-Internet of Things
- Continuity of Critical Infrastructure
- Demands for Uninterruptible Supplies Across Communities, Industries

# Executive Summary

\$3.5 trillion in losses from various disasters – weather-, natural-, and man-made – since the 1980s - with 50% of that total since 2016

A permanent challenge for economic growth, industry competitiveness, emerging national security risk

“Future Proofing America” – our thesis for proactive, pre-disaster risk mitigated investment across technology, equipment, data science, and alternative resource allocation

Identified 800+ Resilience Zone locations to deliver “Shovel Worthy” strategic inventories of new innovations and project-scale integrated infrastructure solutions for measurable impact

Using a 1:6+ Return on Investment Performance Metric, the ROAR Partnership intends to launch or syndicate a Resilience Investment Fund I (\$15-30 million) through Private-Philanthropic-Public Partnerships (“P4s”).

A pipeline of \$50 million in technology inventories and projects on which to jump-start the Fund’s use and near-term impact

# Our Goal: Changing the Delta in Risk Mitigation

FROM THE ALIGNMENT OF TECHNICAL, ENGINEERED, SCIENTIFIC, AND FINANCIAL CAPABILITIES



## PREVIOUS LOSSES

With nearly \$4 trillion in losses since the 1980s, coupled with an abundance of new data, modeling, and after-action reports, the cost of doing the minimum or traditional response and rebuild is no longer sustainable economically, financially, politically.



## MITIGATION AND INTERVENTION

Through our approach to innovative resilience by identifying, vetting, investing, and deploying integrated solutions of technology, equipment, and data tools, we can measurably transform the current risk transfer to risk shared impacts for insurance, reinsurance, public sector and of course citizens, communities, companies



## MEASURABLE REDUCTIONS

Based on emerging best practices and newly formed partnerships, we seek to demonstrably launch and sustain projects where a minimum of 1:6 cost-benefit will reduce future loss claims and enhance continuity of operations, community safety.

....Resulting in our establishing a new national designation for communities, industries, facilities and operations to transform risk and impact



# Facts and Data That Drove Our Initial Work

Hurricane Harvey in 2017 caused  
**\$75 billion**  
in property loss

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Flooded  
**200,000 homes**  
& destroyed  
**500,000 cars**

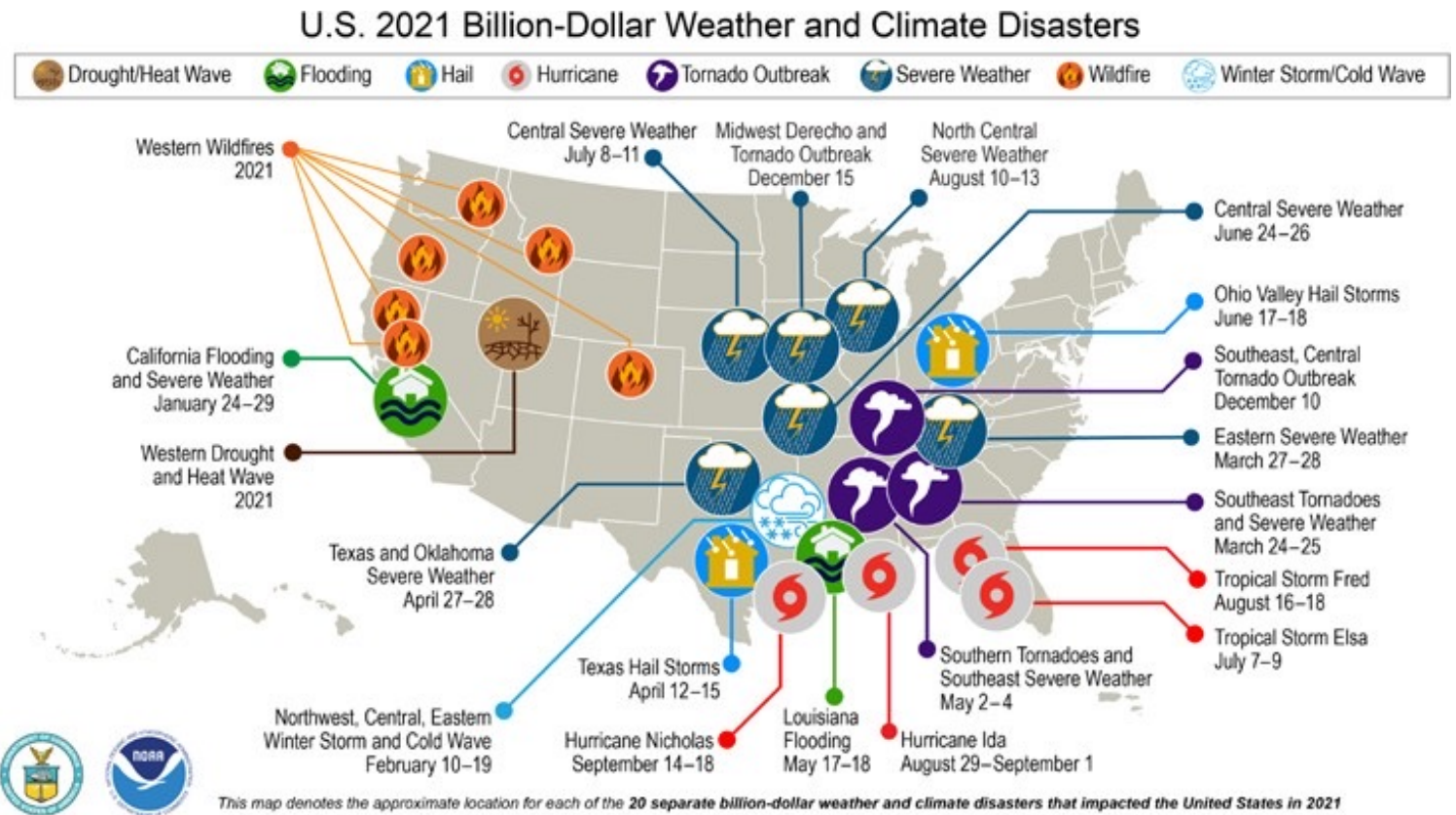
**3 X Tonnage**  
of Hurricane Harvey debris  
than from Hurricane Katrina

**69%**  
of Texans lost power during Storm Uri (University of Houston Hobby School)

**\$3.8 Trillion**  
in losses since 1982; **50% or \$1.35 trillion in just the past 5-7 years!** (Reinsurance Association of America)

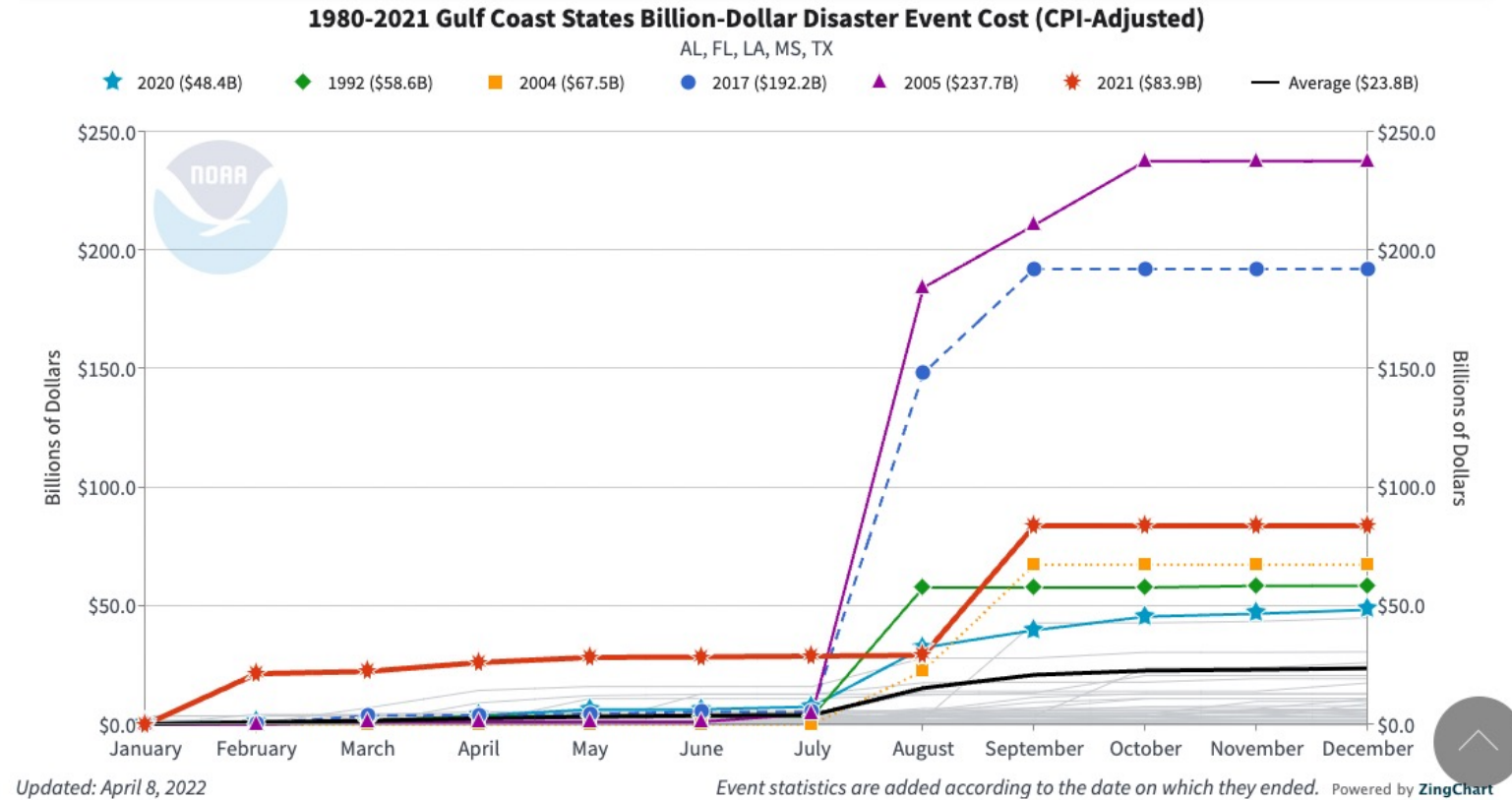
**1:6**  
**Cost Benefit Return**  
on investment from pre-disaster risk mitigation (University of Pennsylvania Wharton School)

# The Financial and Business Case: Trillions in Repetitive Loss



The U.S. Department of Commerce National Oceanic and Atmospheric Administration reported that, “The U.S. has sustained 298 weather and climate disasters since 1980 where overall damages/costs reached or exceeded \$1 billion (including CPI adjustment to 2021). The total cost to the Federal Government of these 298 events exceeds \$1.975 trillion.” According to NOAA, “Each state has been affected by at least \$1 billion-dollar disaster since 1980.”

# The Financial and Business Case: Trillions in Repetitive Loss



In just the past 5-7 years, Gulf States have experienced some of the largest losses due to multi billion-dollar weather- and water-related disaster events.



# ...Therefore, Problems We Are Solving

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## **Fragmented Resources:**

increasingly the negative economics from losses caused by various disasters, weather incidents has insurance and financial institutions, Fortune 500 companies, and federal-state governments focused on enhanced preparedness – fortifying infrastructure, mitigating operational risks, protecting citizens and communities from repeated threat. [Reference: Zurich International, FEMA post Harvey-Irma After Action Reports]

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## **Limited to What Current ‘Actors’ Are Comfortable With:**

traditional response – from Zero Hour to the initial two weeks – and then to “recovery” over the initial 90 days – often falls upon known ‘incumbent’ products and solutions rather than optimal and innovation alternatives that have not been previously vetted by agencies and program managers comfortable with what they know; new technologies, services, and integrated solutions can support the ‘first-responder’ as well as business, corporate, and community through advanced offerings that are pre-staged, pre-procured – included in new insurance products and our co-investment.

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## **Not Future Proofed:**

long-term mitigation requires strategic “redesign” of new and retrofitted infrastructure, facilities, operations, as well as purposefully resilient built-environments. We intended - through a collaboration among architecture, engineering, urban planning, logistics, facilities management, and several other inputs – to seek more efficient and cost-effective technical solutions, project development that are “shovel worthy”.

The following information does not constitute an offering to sale securities, investment products, nor conduct a formal solicitation, and serves only to inform the reader of an emerging opportunity for future consideration.

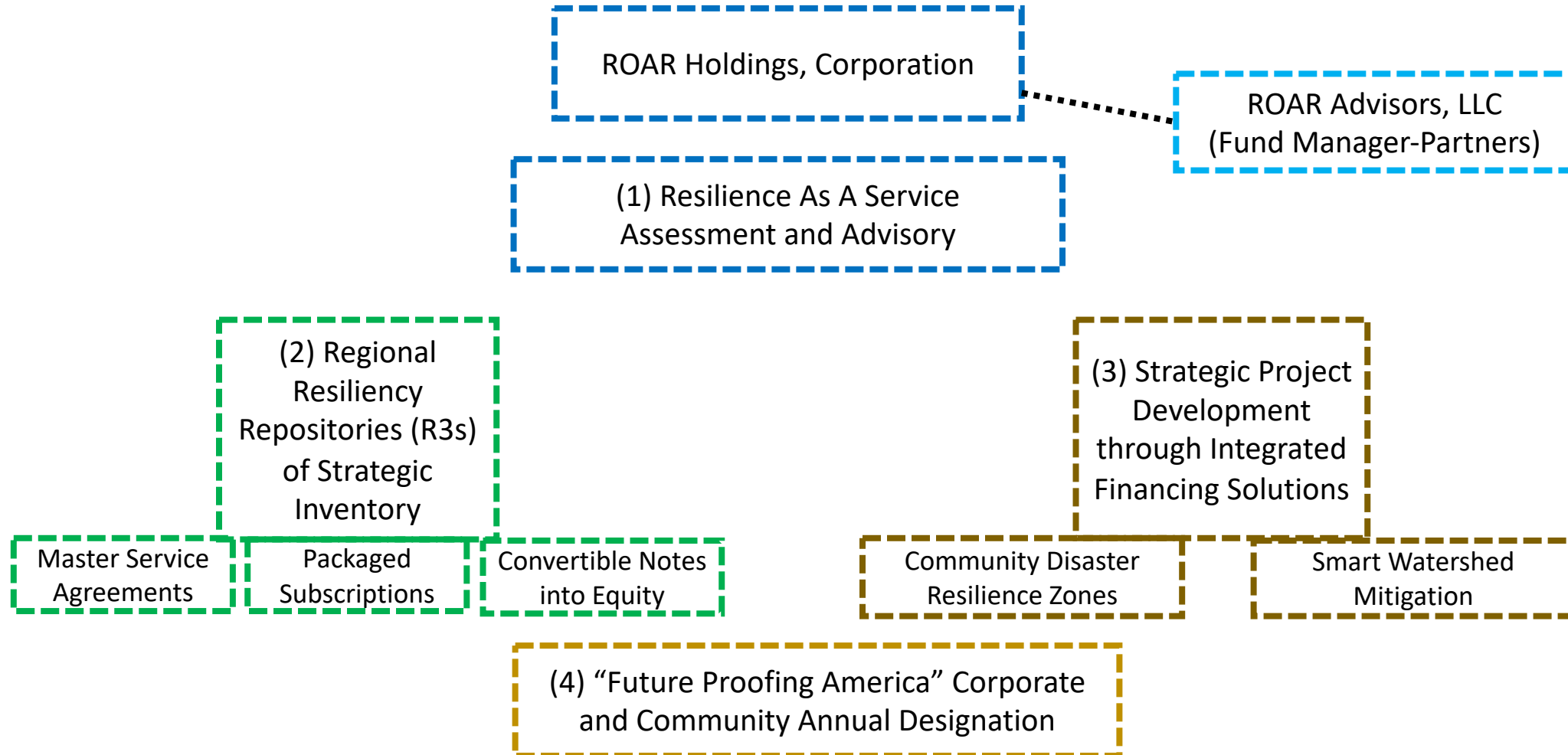


## **INNOVATION FUND I**

### **\$30 MILLION SEED ROUND**

for disaster-driven risk mitigation across residential, commercial, industrial, and public sector facilities, infrastructure and operations supported by prop-, insur-, green-, and smart technologies, equipment, data science. Delivery of 1:6 or better cost-benefit projects through private-philanthropic-public partnerships in Community Disaster Resilience Zones.

# The ROAR Partnership Structure for Investment Allocation

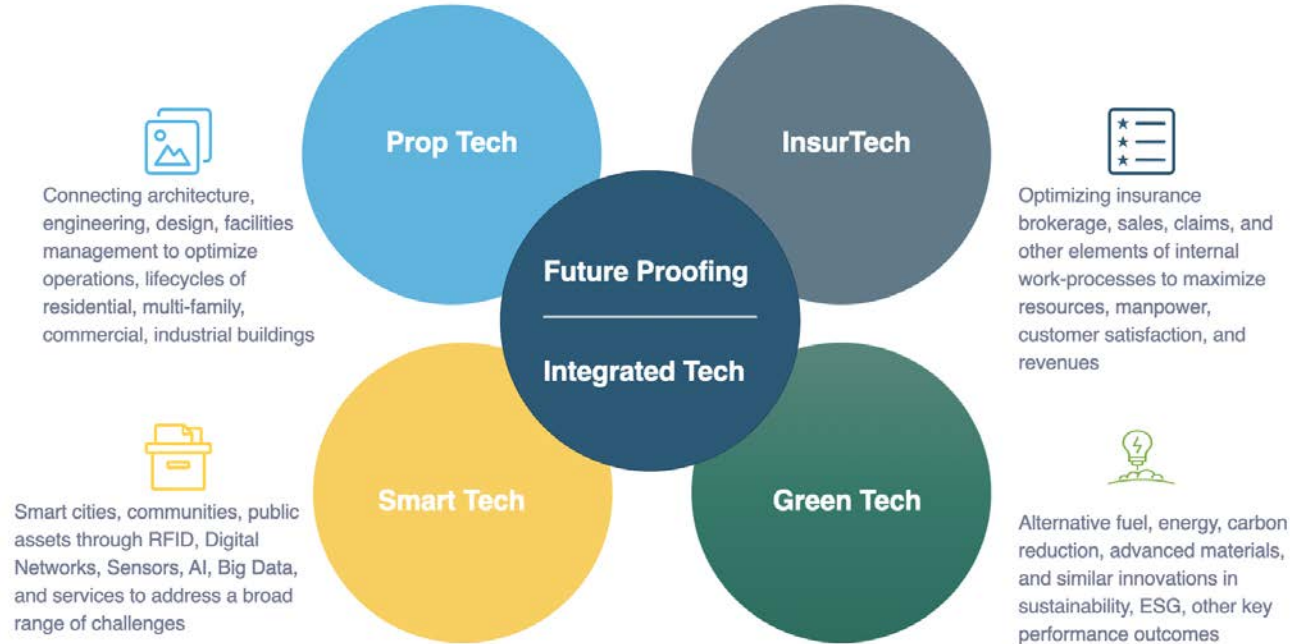


# Key Elements of Our Technology Strategy:

Pre-Vetted, Pre-Negotiated, Pre-Deployed Strategic Inventories and Integrated Platforms Embedded into Project Development

## What We Are:

Integrated Platforms of Technology, Equipment, and Data Science Applied to Pre-Disaster Risk Mitigation



Note: Currently we have 40 unique solutions and integrated platforms ready for deployment

Hazard (All)

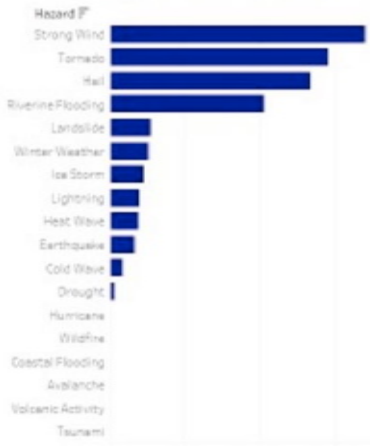
Hazard

Source: FEMA's National Risk Index <https://www.fema.gov/nri>

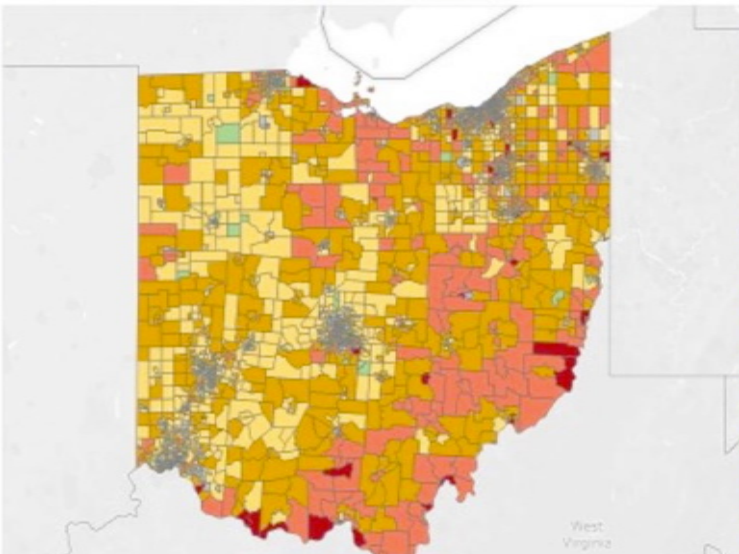
Exposure - Riverine Flooding

Building Value Exposure: 47,586,389,631  
Agriculture Value Exposure: 531,043,797

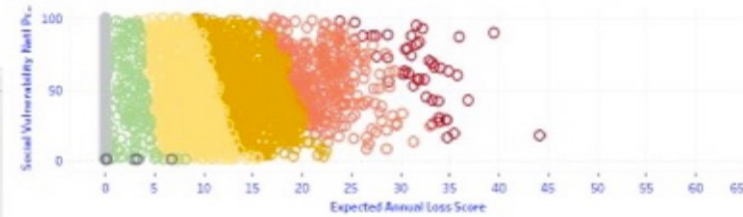
Total Expected Annual Loss



Map - Riverine Flooding



Census Tract Social Vulnerability - Riverine Flooding



Hazard	Expected Annual Loss Population Equivalence	Expected Annual Loss Agricultural Value	Expected Annual Loss Building Value	Expected Annual Loss Total
Strong Wind	51,957,592	2,188,003	116,815,382	170,960,991
Tornado	64,396,000	81,562,388	145,958,388	145,958,388
Hail	17,451,309	2,841,636	113,853,704	134,146,681
Riverine Flooding	29,807,545	3,425,369	69,811,373	103,044,304
Landslide	7,075,696	20,048,175	27,123,872	27,123,872
Winter Weather	10,288,076	15,787,849	26,075,924	26,075,924
Ice Storm	5,616,894	16,735,327	22,352,221	22,352,221
Lightning	18,746,817	1,101,244	19,848,061	19,848,061
Heat Wave	18,796,022	371,071	19,167,093	19,167,093
Earthquake	853,045	15,721,491	16,574,536	16,574,536
Cold Wave	5,055,393	2,797,999	505,929	8,359,349
Drought		3,500,103		3,500,103
Hurricane	316,142		354,026	670,168
Wildfire	105,405		189,461	294,865
Coastal Flooding	0		0	0
Avalanche	0		0	0
Volcanic Activity				

# RESILIENCE ZONE PILOT PROGRAM

## Inaugural Cadre of Zones

Selection of 10-12 "Most At Risk, Most In Need" Jurisdictions  
Using A New Data-Driven Identification Process

### Community Resilience Bonds & Investment Funds

Competition and Development of Alternative Non-Government Financing, Funding of Risk Mitigation Projects and Infrastructure

### Resilience LifeSpots

Platform Connecting Supply Chains, Products, Services, Volunteers, Faith-Based Institutions, and Community Organizations in Real-Time Preparedness

### Resilience Impact Resources

Addressing the Technology and Innovation Needs for and with Communities of Color and Diversity, Underserved Populations



### Resilience Data Exchange Toolkit

Analytics Toolkit Across Engineered-Hydrological, Economic, Societal, Environmental, and Financial-Loss Data Modeling and Scenario Setting

### Resilience Framework

Unique Interactive Engagement for Prioritizing Situational Awareness, Problem Identification, Defining Alternative Opportunities, Sparking Solution Builders

### Innovative Resilience Nexus

Open-and-Crowd Sourcing of Technology, Equipment, Data-Science Into Multi-Functional Platforms for Energy, Water, Power, Data, Food, and Other Solutions

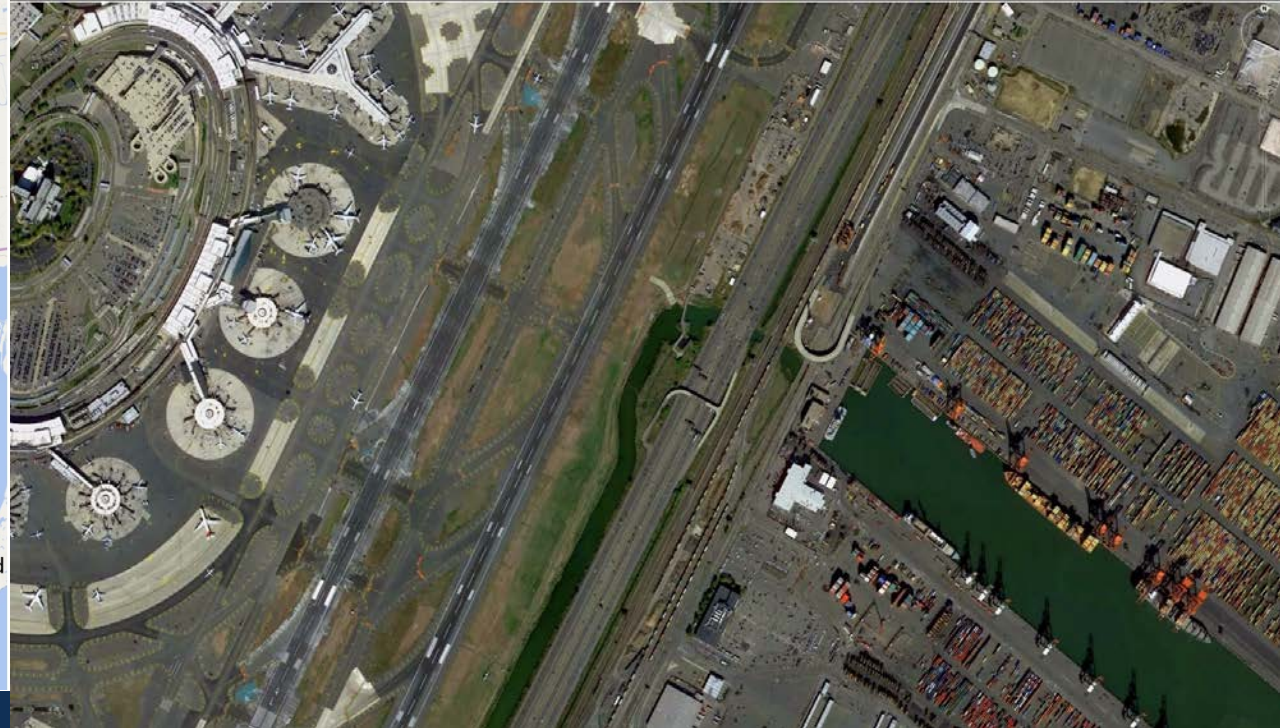
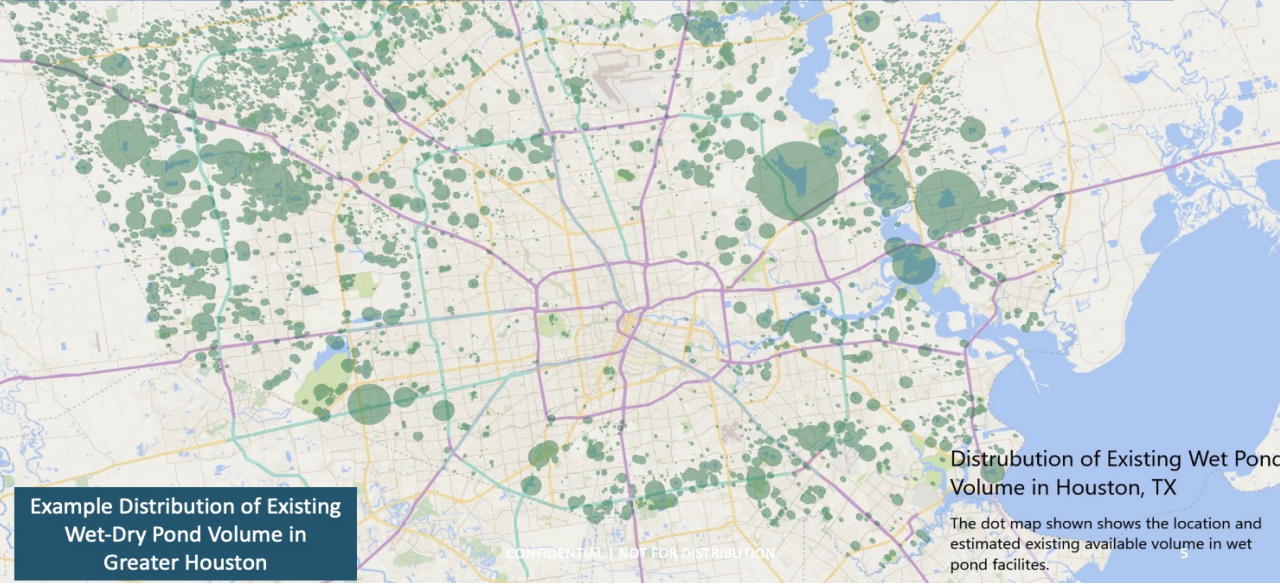
### Resilient Citizens Corp

An Employer-Driven Workforce, Skills Development, Training, and Certification Initiative with Regional Community Colleges, Trade and Technical Schools

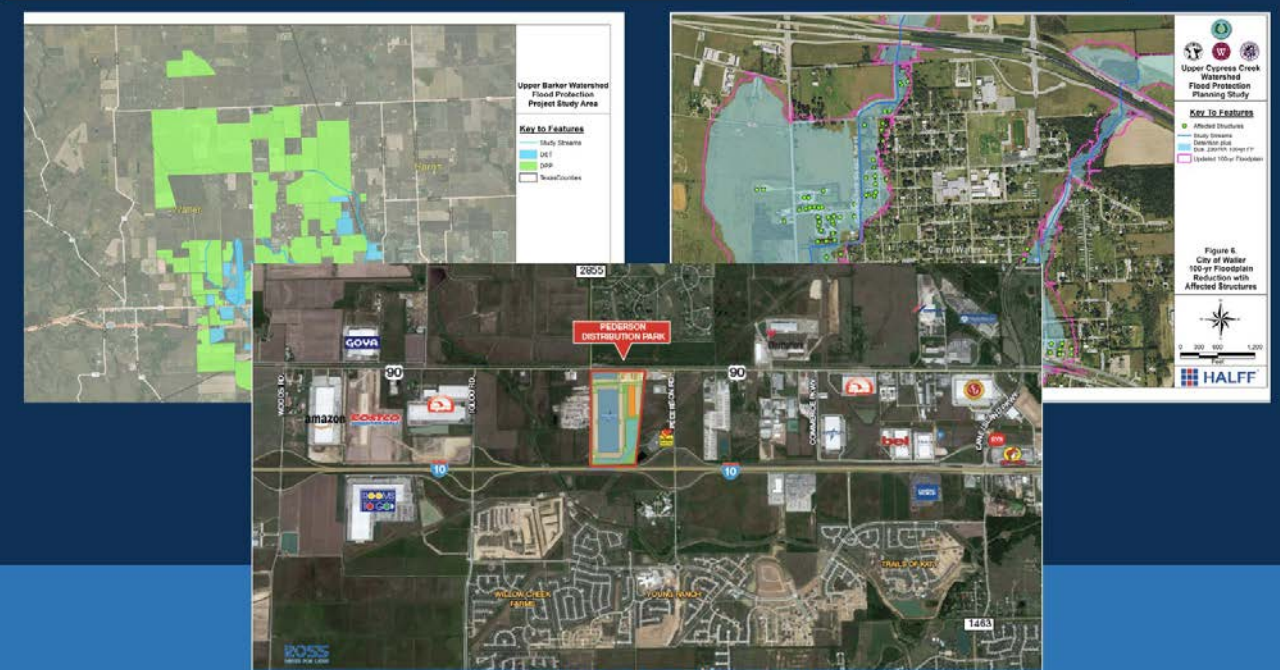
Where We Target Our Investments  
By Assessing Loss Causes and Impact Costs?

Community Disaster Resilience Zones:  
800+ Census Tracts Defined as "Most At Risk, Most In Need" From Persistent Disasters and Economic Disruption

Initial Analysis, Assessment of Under-Utilized Regional Detention-Retention Assets and Infrastructure (2019) with Intent to Assess Other Assets, Partners (2020)



IDENTIFYING LOCATIONS, ASSETS, AND IMPACTS FOR ADVANCED MITIGATION



Where We Target Our Investments  
By Assessing Loss Causes and Impact Costs?

Smart Watershed Mitigation Initiatives for  
Managing Quantity, Quality, Conservation  
including Green Infrastructure and Carbon  
Capture Integrated Benefits

# How We Target Our Investments?



Extensive Data Analysis, Modeling, and Consistent Curation of Research and Information on a Regional and Local Perspective vis-à-vis our Resilience Data Exchange Network of Academic, Non-Profit, Industry Partners

## Investment Objectives:

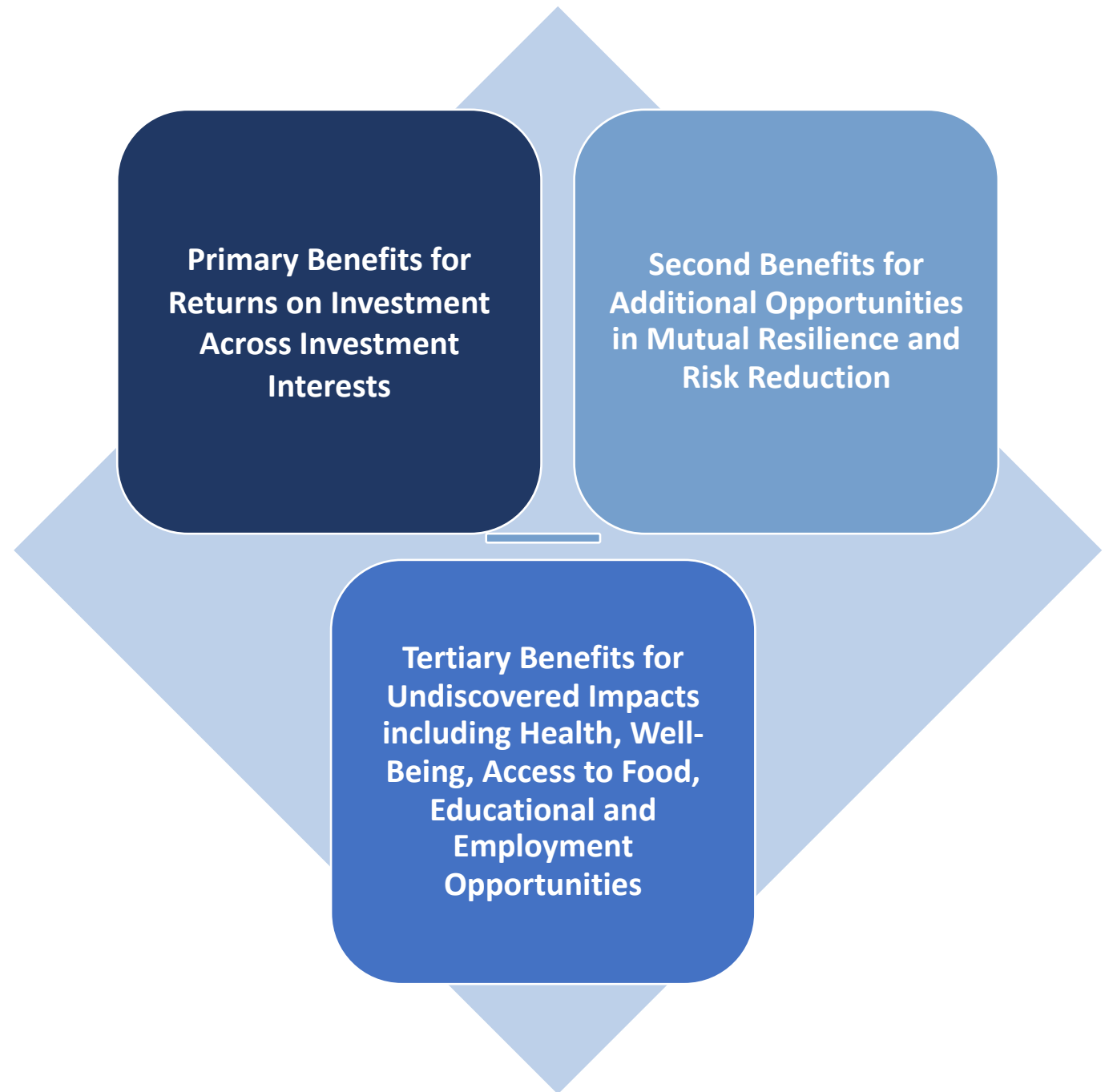
### A Bridge for Private-Philanthropic—Public Partnered Projects (“P4s”)



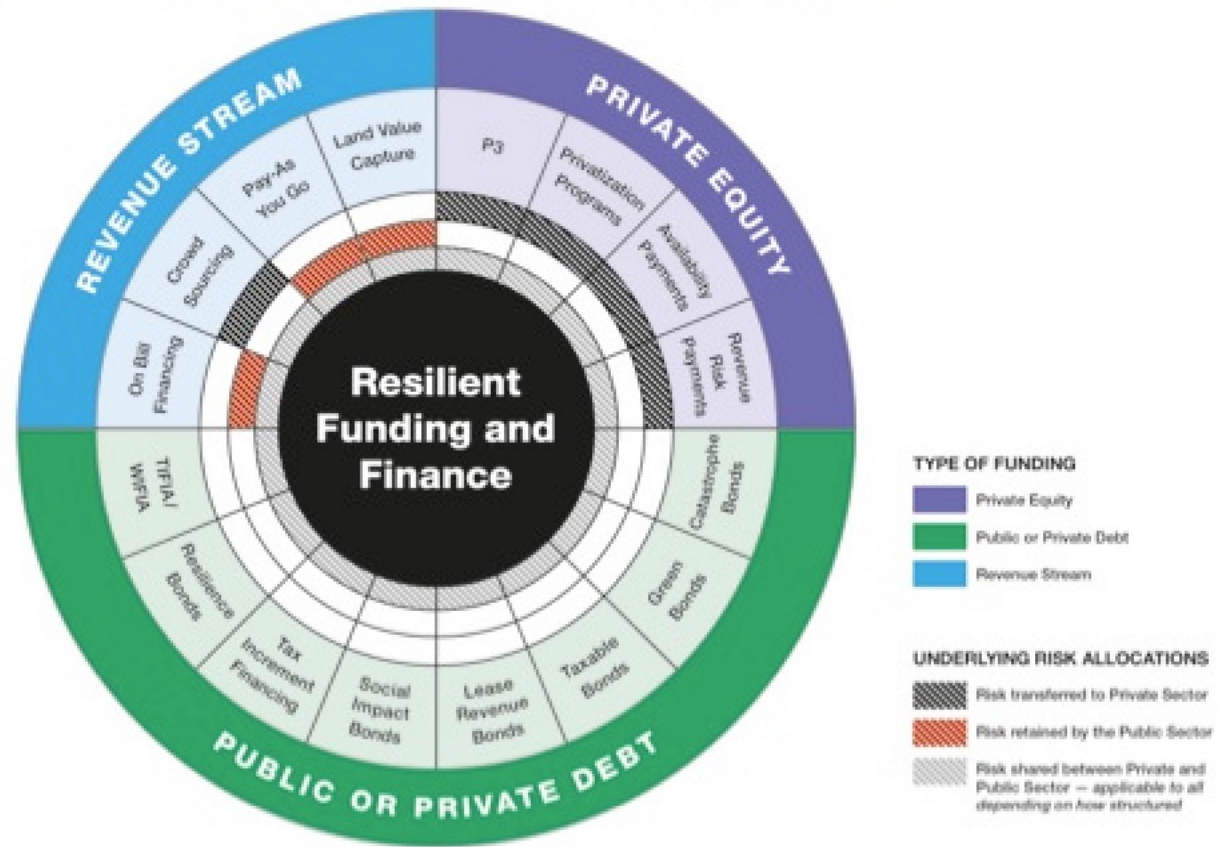


# Investment Objectives:

## Mission-Driven Benefits

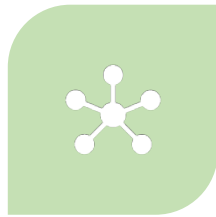


# A Pivot in Resilience Investing: Integrating Trillions of Resources into New Solutions



The Resilience Innovation Fund I identifies, aligns, and integrates a unique capital stack across private, philanthropic, and public institutions, programs, and resource initiatives to accelerate mutual objectives, goals, impacts, and performance.

# Our Value Add for Portfolio Companies and Projects



**EXPERT  
NETWORKS**



**STRATEGIC  
PARTNERSHIPS**



**MARKET  
ACCESS**



**EXIT  
RELATIONSHIPS**

# Our Strategy for Sourcing Deal Flow

Resilience Innovation  
Hub Collaboratory  
Network

Insight from Insurance,  
Reinsurance, Financial,  
and Investment Leaders

Engagement with  
Federal, State, Local  
Senior Representatives

Ongoing Pre- and Post-  
Event Assessments with  
Industry, Corporate,  
Facility C-Suite



## Fund Management and Advisors:

### Roles & Responsibilities (in development)

#### Senior Advisors:

- The Honorable Eleanor Kitzman, former State Insurance Commissioner for Texas and South Carolina
- The Honorable Carlos Castillo, former Associated Administrator for Disaster and Resilience Programs, Federal Emergency Management Administrator

#### Interim Managing Partner and Chief Development Officer:

Richard Seline

Federal Agencies and Defense-  
Military Sector Managing  
Director: former senior agency,  
program officer

Strategic Project Development  
Managing Director: former  
engineering and infrastructure  
development senior executive

R3 Strategic Inventories  
Managing Director: former  
senior logistics executive  
(military and corporate)

General Counsel:  
Dan Matheson

# Our Resilience Model

A New Risk-Shared versus Risk-Transferred Strategy for Community and Corporate Mutual Interest

The Three Pillars for Addressing Current Challenges Among Insurance/Reinsurance,  
Industry-Corporate, Public-Sector Facilities, Infrastructure, Assets



**Resilience Innovation Hub**

Ideas | Opportunities | Capital

A national non-profit eco-system of likeminded regional nodes in our Collaboratory Network focused on pre-disaster risk mitigation – including sustainability-green, smart city, and prop tech – aligned with insurance and alternative capital ([www.resilienceinnovationhub.com](http://www.resilienceinnovationhub.com))

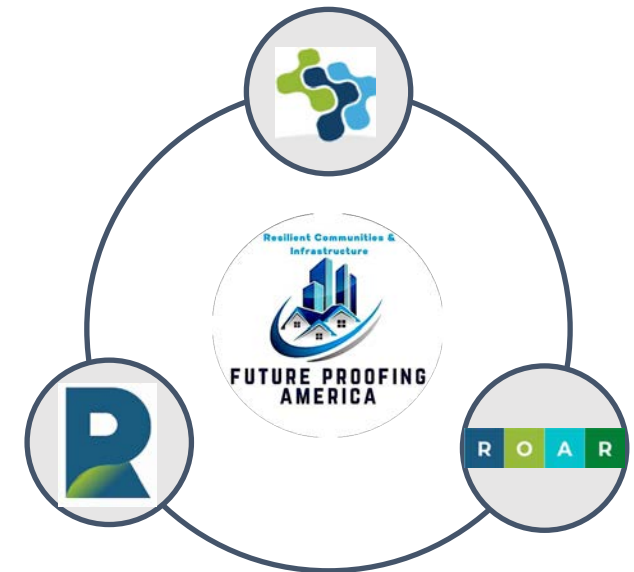


**RESILIENCE  
VENTURE LAB**

A fast-paced program for advancing growth-stage technology, equipment, and data-science solutions from myriad incubators and accelerators' cohorts into market-ready investment ([www.resilienceventurelab.com](http://www.resilienceventurelab.com))



An innovation and investment advisory firm focused on growth-stage technology, equipment, data science platforms into large scale project delivery vis-à-vis Resilience Zones ([www.roarpartnership.com](http://www.roarpartnership.com))



Establishing a new standard  
for resilience

Designation as future proofed (branded) project worthy  
investments, developments, and operations for thriving,  
not just surviving

For more information:  
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Disaster related Risk Mitigation  
For Private, Philanthropic, and Public Sector Impact

