

# Educational Partnerships for Innovation in Communities

Jessica Barlow, PhD



## The EPIC Question



What if we could connect existing courses to a single city over an academic year to work on critical and vexing projects identified by city staff and do so at a scale that magnifies the value for all?

# SCALE of the EPIC MODEL



**500+**  
**STUDENTS**



**20-25 FACULTY  
MEMBERS**



**25-35  
COURSES**



**epic-network**



**15-20 PROJECTS**



**10+**  
**DISCIPLINES**



**40-60,000 HOURS  
OF EFFORT TOWARDS THE COMMUNITY**

# How EPIC is Different

- Large-scale
- Multi-disciplinary
- Opt-in by faculty
- Not new curricula
- Community-identified projects
- No permission necessary at University
- Fee-based, partner has “skin in the game”
- Catalytic

*All based on  
University resources  
that already exist.*

# **Model Expansion: Training**

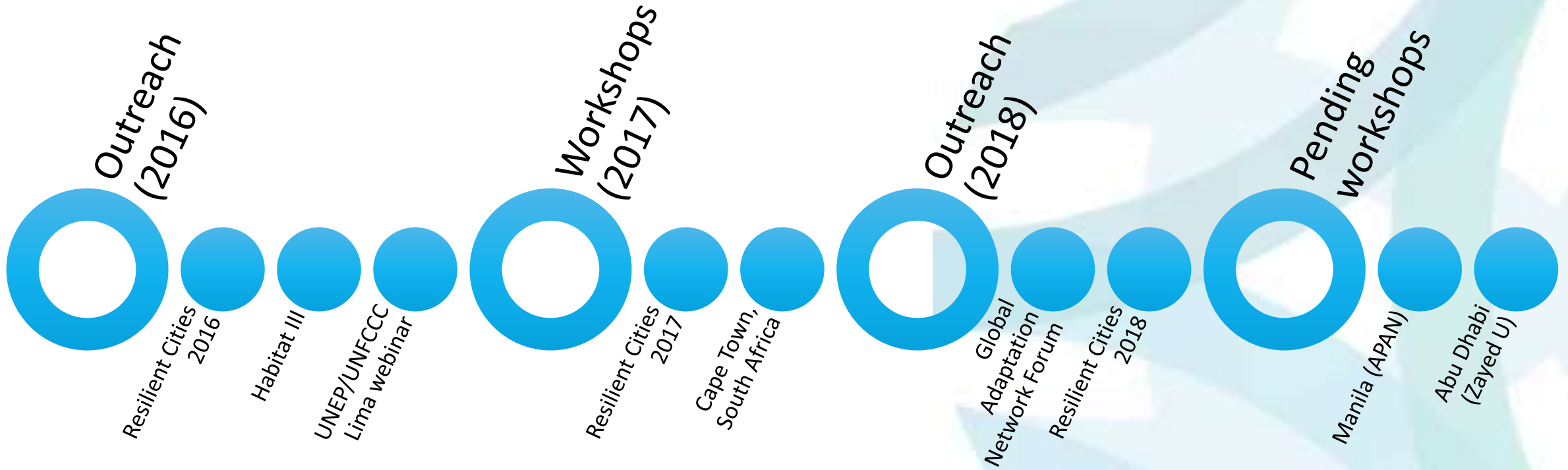
- Annual conference
- Specially commissioned (regional) workshops
- Site visits and ongoing technical support



# Stakeholders



# Timeline of activities



# Resilient Cities 2017 (Bonn, Germany)

- One-day training (May 3)
- 150 city-university *pairs* of applicants, 18 selected
- Universities and cities from the global south (Latin America, Africa, Asia)
- 30 observers from numerous international organizations
- 80 attendees in total
- 4 main trainers (Marc, Nico, Jessica, Courtney), plus Kristofer attended (unfunded) to provide additional international context
- Interest in regional workshops in Ecuador, South Africa, Philippines



# Cape Town, South Africa

- 1.5-day regional workshop for sub-Saharan Africa
- 8 city-university pairs, plus observers
- Training by Marc, Nico, Courtney, Jessica
- Presentations by Edna, Gilbert, and Sean (trained in Bonn)
- Established regional EPIC network, EPIC Africa  
<http://naturalsciences.unza.zm/epic>



# **Model Expansion: The EPIC Network**

Over 30 EPIC programs in the US and around the globe in Brazil, Israel, Kenya, Mexico, and Zambia



# Educational Partnerships for Innovation in Communities

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# Sample Projects

win-win-win





# Improving Transportation Choices

Bicycle Transportation

Marc Schlossberg

Planning



## Perception of the bike network depends on rider confidence

Bicyclists can be split, intuitively, into three groups based on their relative levels of confidence and bravery. Each of these groups perceives the bike network differently, based on which roads they feel comfortable using.



### The “Interested but Concerned” Cyclist

-At 60%, they represent the majority of residents willing to cycle.\*



### The “Enthusiased and Confident” Cyclist

-Comprise about 7% of a city's population.\*



### The “Strong and Fearless” Cyclist

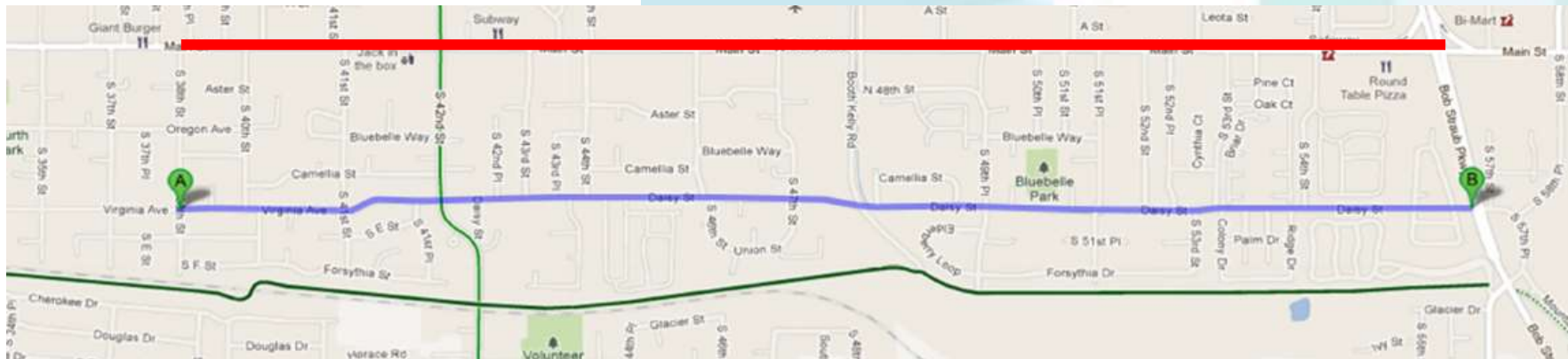
-Make up roughly 1% of a community's residents.\*

**Last year in Redmond, 15 of 17 student ideas were adopted by policy within 6 months**



# Improving Transportation Choices

Bicycle Transportation  
Pedestrian Safety  
Traffic Calming



Generated: Community Support & Successful Grant Funding of 2018 Construction



# Improving Transportation Choices

Bicycle Transportation  
Pedestrian Connectivity  
Preservation



**Generated Voter Support to: Purchase & Protect 665 Acres, Design & Construct 2 Paths**



# Improving Wayfinding

Community Values

Place Making

Planning

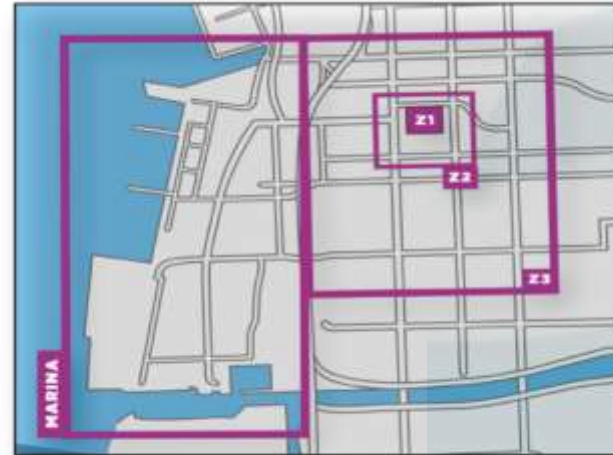
Design



# Economic Security and Sense of Place

## Way-finding System

Patricia Cue Couttolenc  
Graphic Design



Resulted in over \$1 million in wayfinding grants for  
National City, CA



# Economic Revitalization

## Industrial By-Product Re-Use

Jennifer Howard-Grenville  
Business



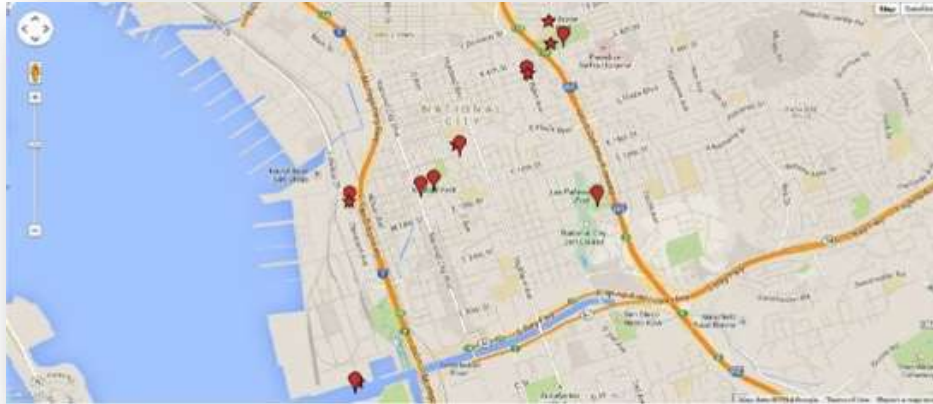
**Resulted in \$800,000+ in cost savings and revenue annually**  
Now part of regional economic development strategy



# Air Quality and Urban Health

## Freeway and Industry Impact and Mitigation

Zohir Chowdhury  
Public Health



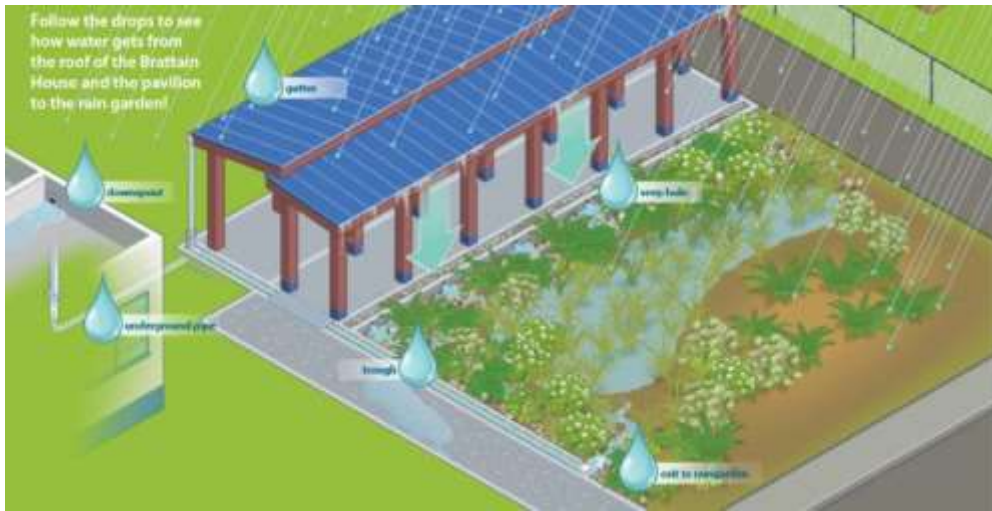


# Rainwater Sites

Water Management  
Communicate  
Design  
Build  
Educate



## Welcome to the Brattain House Rain Garden!

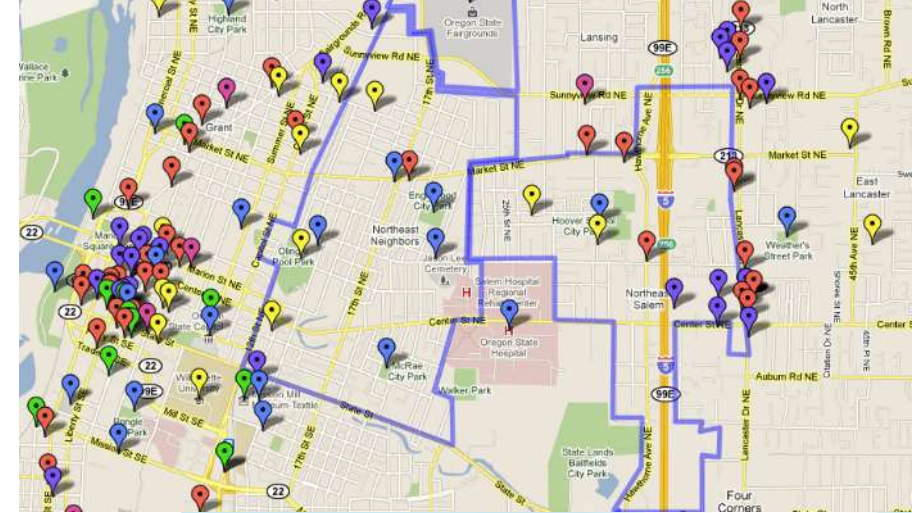




# Engaging Marginalized Communities

Cultural  
Mapping in  
Northeast  
Salem

Doug Blandy and  
John Fehn  
Arts and  
Administration



Salem  
Latino  
Civic  
Engagement

Gerardo  
Sandoval  
Planning

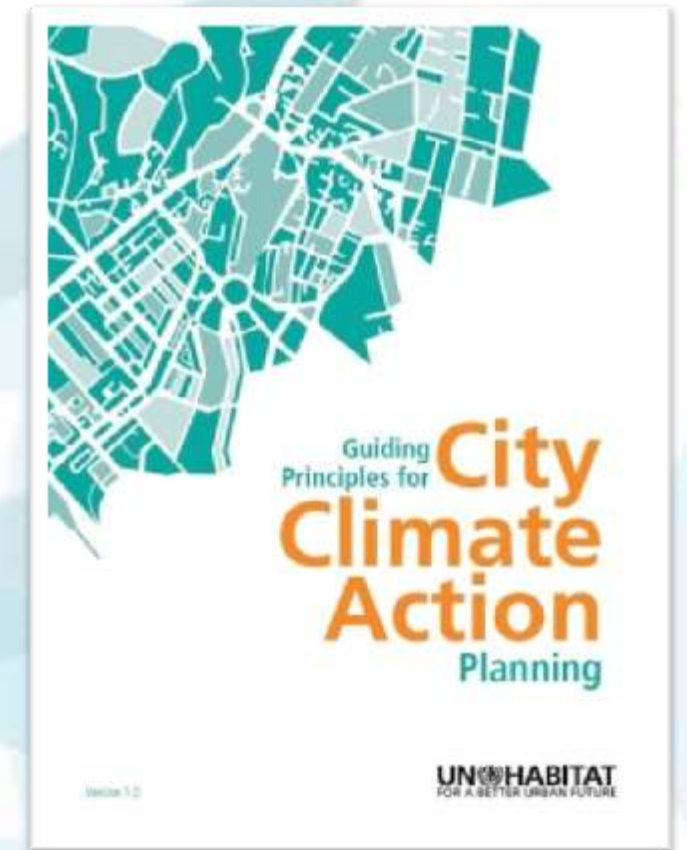


**Resulted in new participation on city boards, commissions, and elected office and better relationships with city officials.**

# Improving Community Health

## Health Impacts of Climate Change

Zohir Chowdhury  
Public Health



**First US application of  
UN Habitat Guiding Principles toolkit**