



THE UNIVERSITY OF BRITISH COLUMBIA

Freie Universität



Berlin

Universities-city collaboration to foster resilience



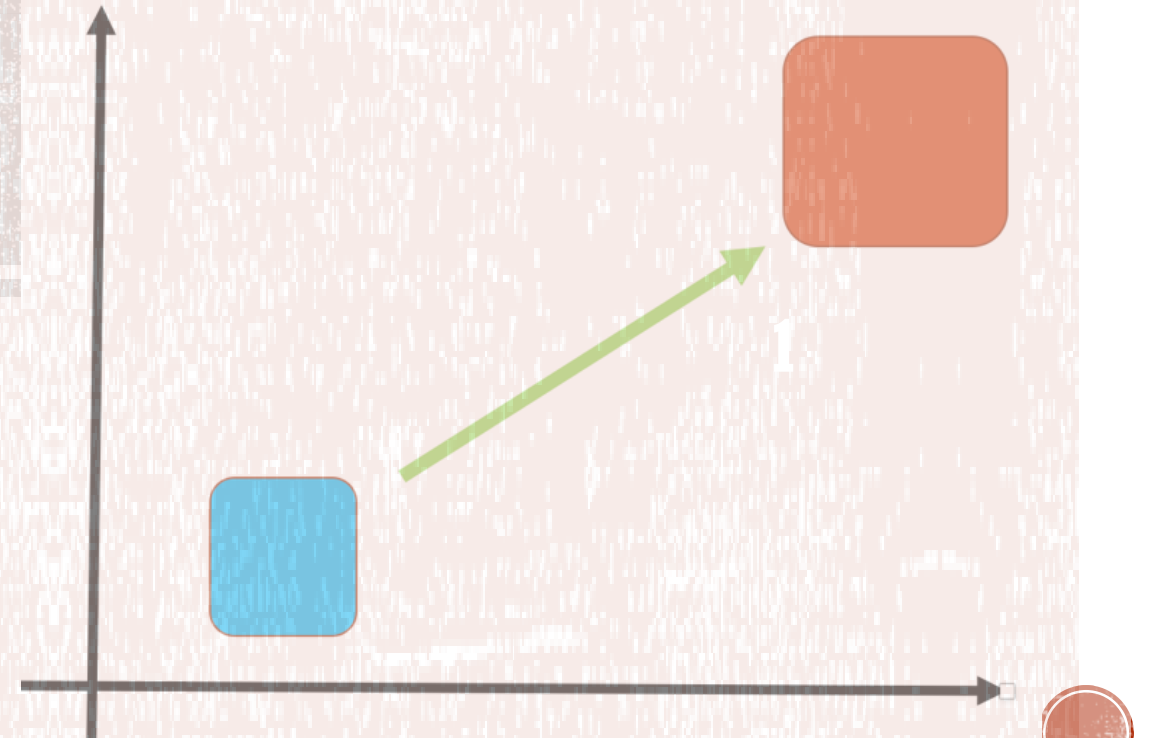
University
Alliance for
Sustainability

9 April 2018

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University of British Columbia

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Sauder School of Business, UBC

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Global Network for Advanced Management



Cities

MG Road, Bangalore



1980



2000





THE UNIVERSITY OF BRITISH COLUMBIA



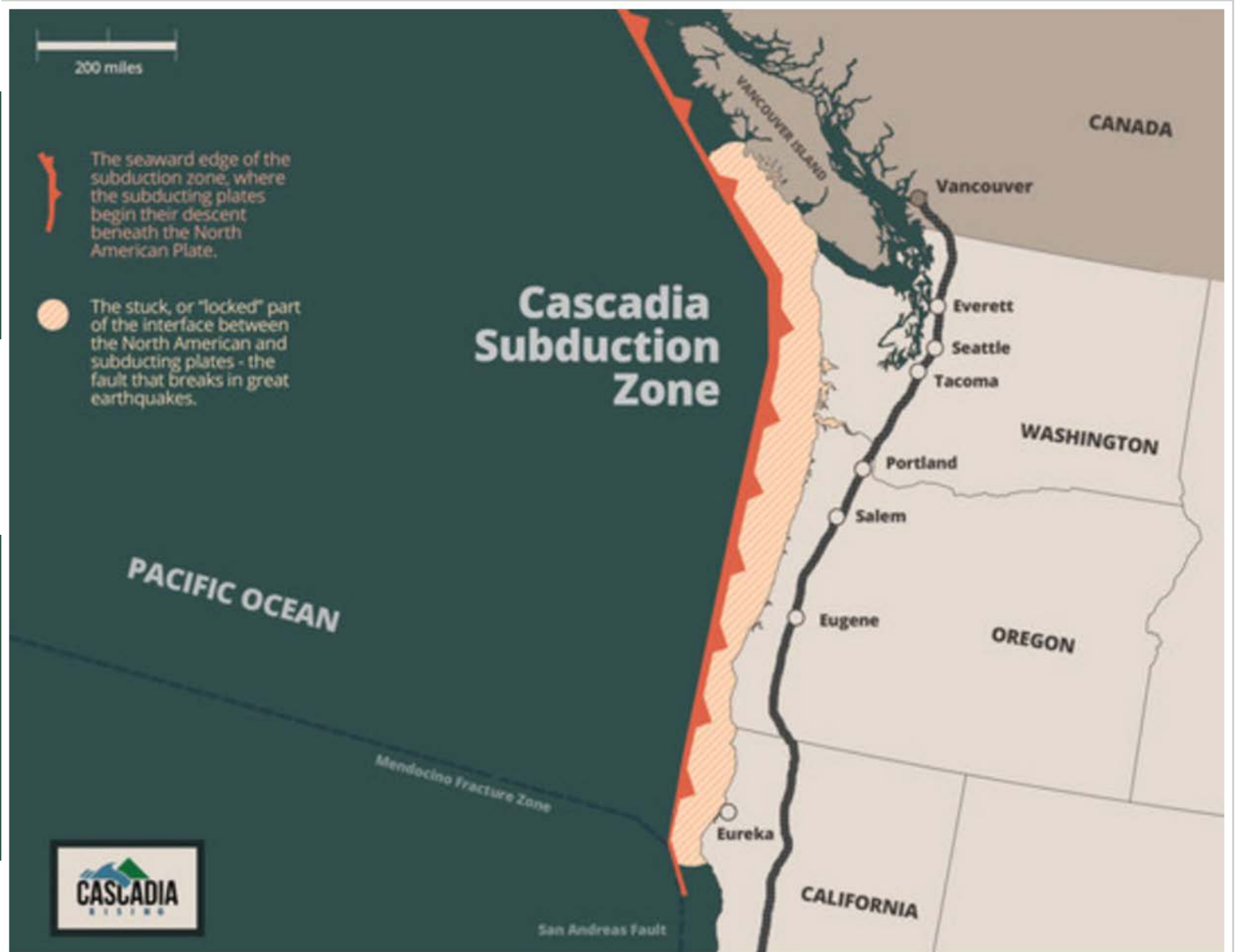
My office





60 miles
off the
coast

The 4
minute
quake is
coming



A person wearing a white helmet and a white vest is riding a white scooter through a massive pile of debris. The debris consists of large amounts of wood, including planks and beams, along with other household items and structural materials. The background shows more of the destroyed area under a grey, overcast sky.

60-90% people were rescued by
local volunteers after Kobe earthquake

1/10th fatality rate in
neighbourhoods with social network

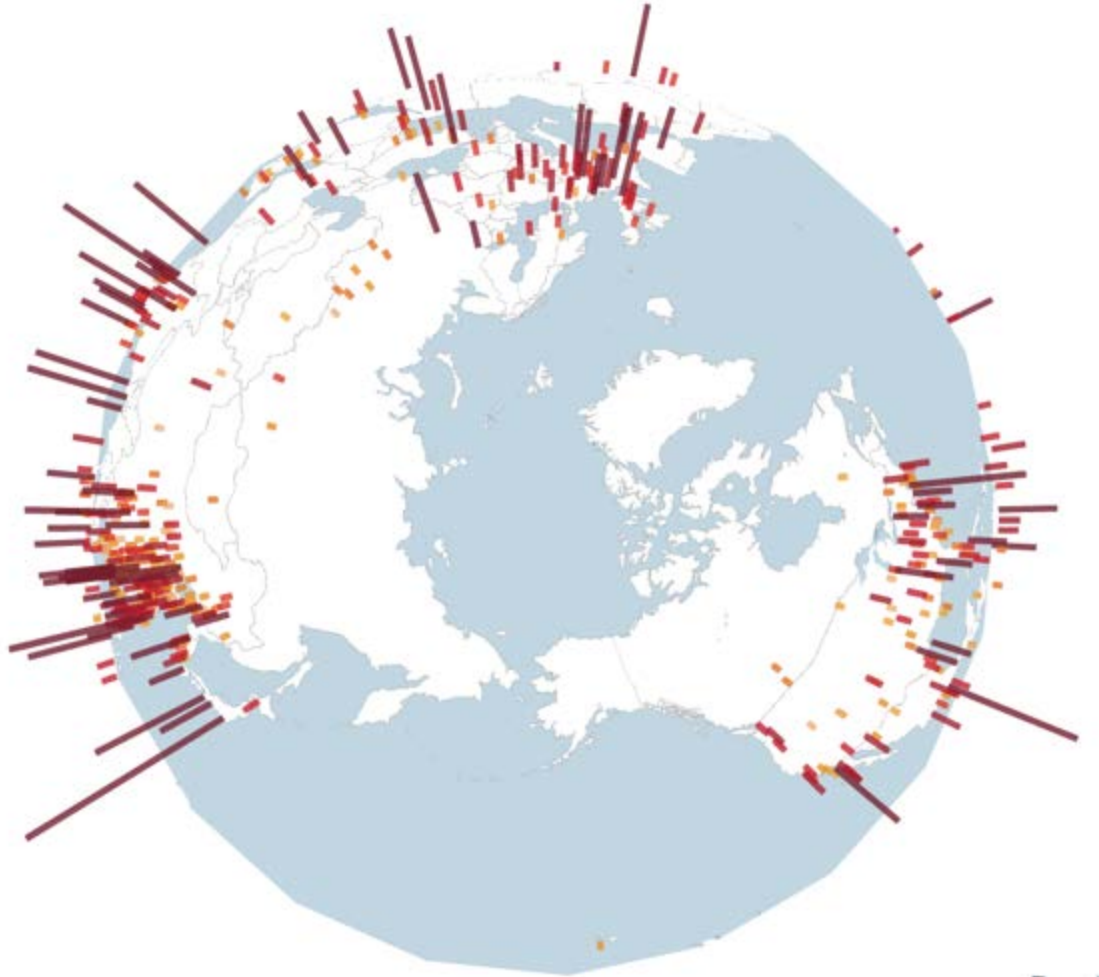
SOCIAL CAPITAL

The
loneliest
city in
Canada



Photograph: Jean-Pierre Lescouret/Getty
Images/Lonely Planet Images

TWO INTERESTING THEMES



Rapid urbanization

2% urban in 1800
30% in 1950
70% by 2050

...and...65% of global GDP
from 600 cities

Inclusive prosperity

MEGA CITIES SURGE (>10M RESIDENTS)



10 to 28 to 41 (in 2030)

SECTORS THAT DRIVE CITIES AND AFFECT CONSUMER'S LIVES

	Transportation	<i>Public Transportation, Intelligent Parking, Traffic Management, Fleet Tracking, Road Condition Sensing</i>
	Energy	<i>Smart Metering, Smart Grid, Energy Storage and Load Management, Charging Stations</i>
	Smart Buildings & Lighting	<i>Building HVAC/Air Quality Control, Environmental & Event Responsive Lighting, Security Lighting</i>
	Health Care	<i>Emergency Response, Remote Patient Diagnostics and Monitoring, Disease Control, Health Records</i>
	Economic Development	<i>Citizen-centric Services, eCommerce, Tourism, Entertainment, Municipal Planning, Broadband Infrastructure</i>

Source: Alliance for Telecommunications Industry Solutions, Marconi Pacific, LLC

SECTORS THAT DRIVE CITIES AND AFFECT CONSUMER'S LIVES



Public Safety

Emergency Dispatch, Real-time Incident Response, Surveillance, Authorized Subject Tracking



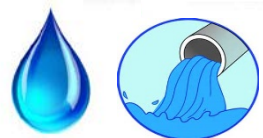
Education

eLearning, Virtual Classrooms, School Management, Cross-Institutional Sharing, Research



Air Management

Air Quality, Transportation Exhaust, Industrial Pollution, Chemical Release, Urban Heat Islands



Water Management

Water Storage and Distribution, Water Quality Monitoring, Waste Water Treatment, Flood Control





Waste Management

Waste Sensing & Collection, Sorting, Recycling, Disposal, Environmental Controls

Source: Alliance for Telecommunications Industry Solutions, Marconi Pacific, LLC

SECTORS THAT DRIVE CITIES AND AFFECT CONSUMER'S LIVES

	Public & Open Spaces	<i>Libraries, Performance Spaces, Parks, Greenways, Urban Forests, Play Spaces, Bicycle Paths, Beaches</i>
	Government Services	<i>eGovernment Services, Access to Government Records, Infrastructure Monitoring and Resiliency</i>
	Telecommunications Infrastructure	<i>Broadband, WiFi, Public Access, Internet of Things, Mobile (2G, 3G, 4G and Evolving 5G)</i>
	Financing	<i>Taxation, Fee/Permit Revenue, Bond Issuing, Debt Management, Short Term Borrowing, Revenue Sharing</i>
	Technology Impacts	<i>Integration of New Technologies – Blockchain, Driver-less cars, Ride-Sharing, 3D Printing, Many Others</i>

Source: Alliance for Telecommunications Industry Solutions, Marconi Pacific, LLC

A LOT OF INTEREST IN CITIES

Example Initiatives	Organization
100 Resilient Cities	Rockefeller Foundation
Smart Cities Challenge	U.S. Department of Transportation
Global Cities Initiative	J.P. Morgan Chase & Brookings Institution
Global Compact Cities Programme	United Nations
Global Cities, Inc.	Bloomberg Philanthropies
Smart Cities Mission	Government of India
Resilient Cities Program	World Bank
& several initiatives within universities that touch upon cities	

MANY CORPORATIONS ARE FOCUSED ON CITIES...



...as well as an enormous number of start-ups



Universities



Jane Luchenco

Social Contract for Science,
1998

boldly called for a new “Social Contract for Science,” one that would acknowledge the scope and scale of environmental problems and have “all scientists devote their energies and talents to the most pressing problems of the day in proportion to their importance.” We were



SOCIETY INVESTS INTELLECT IN TWO QUITE DIFFERENT WAYS

Vannevar Bush

Research

building knowledge
(about problems,
etc.)

Development

applying knowledge
(for solving problems,
etc.)

Which is the better arrangement:

Sequential - **Research, *then* Development**

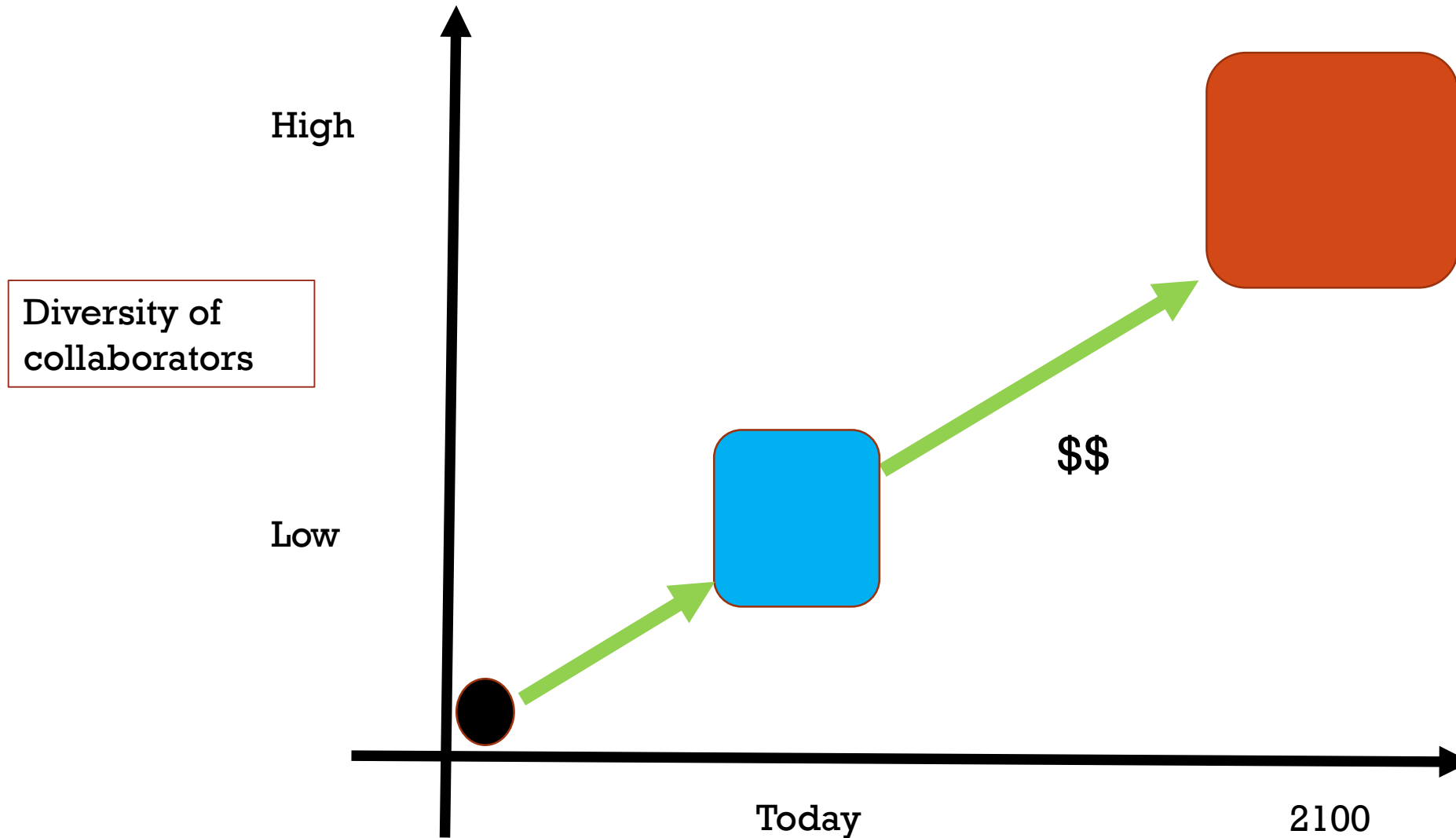
or

Integrative - **Research *with* Development?**

STAKEHOLDERS IN THE EVIDENCE TO PRACTICE CHAIN

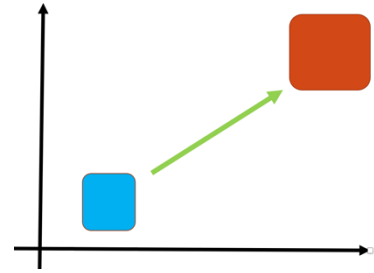
- **Community/people**
- **Researchers**
- **Intermediaries & translators**
- **Policymakers**
- **Implementers**
- **Funders**

A CHOICE UNIVERSITIES NEED TO MAKE



- High coordination costs
- Different time horizons
- Different pressures
- Different incentives
- Low trust and respect

THE CHOICE DEPENDS ON THE PROBLEM



Is the problem narrow and well defined?

Does the problem cause harm in a direct way?

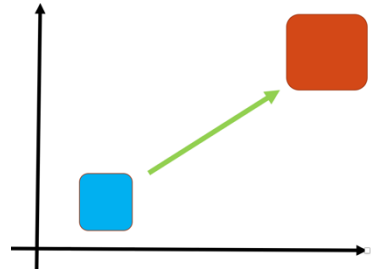
Do we have the knowledge needed to solve it?

Is there a consensus on how to go about solving it?

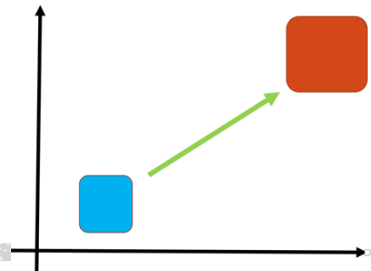
If the answers are all “yes”, then the sequential plan, (research, then development) works well.

For more complex problems, an **integrative and collaborative approach** is more likely to succeed.

WHY A COLLABORATIVE FOR URBAN RESILIENCE?



- Cities vividly illustrate problems
 - that are global and complex, requiring integrative, holistic thinking to address
 - lacking a known solution method
 - lacking a broad consensus for solution
- Cities need many of the disciplines we study and teach



SOCIAL CHANGE & INNOVATION



Initiative at UBC – The HIBAR Approach to Problem Solving

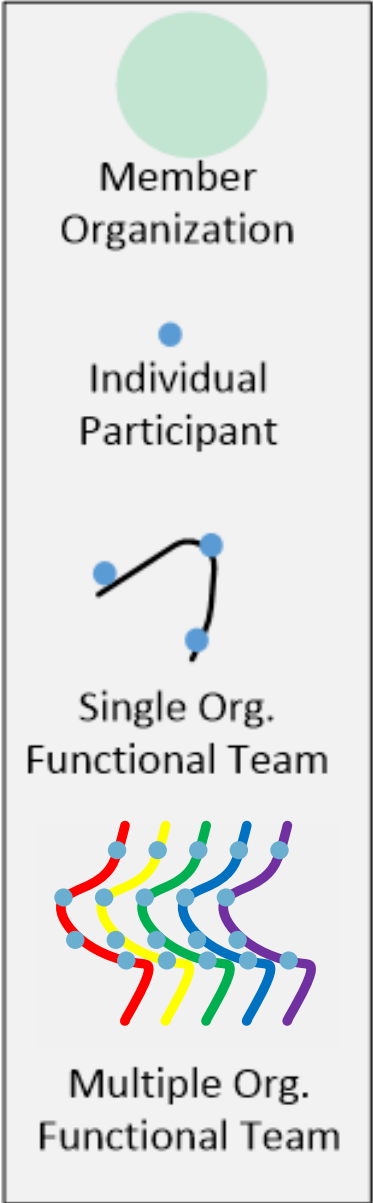
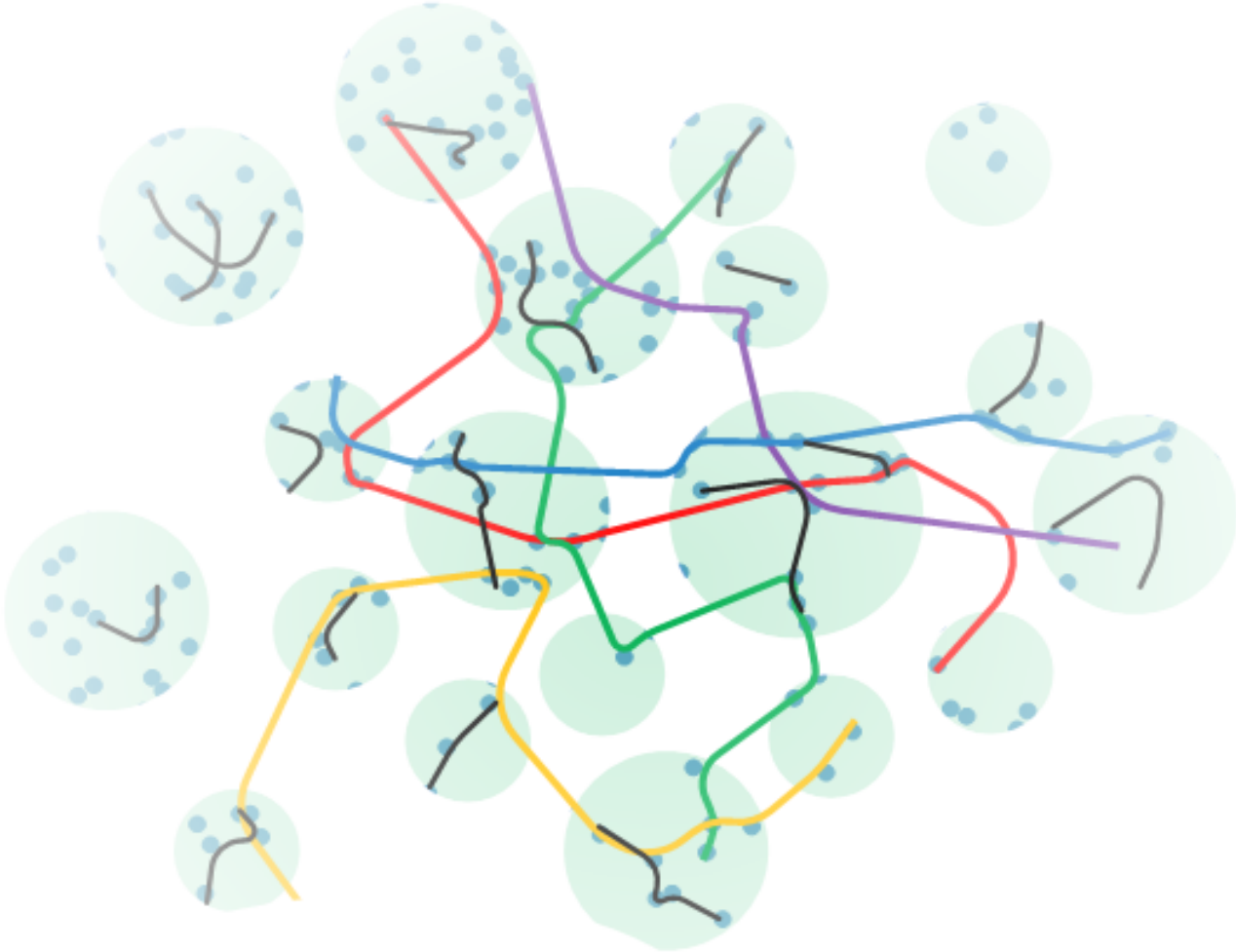
Highly Integrative Basic and Responsive Research

Integrating the study of problems with efforts toward solving them, to improve effectiveness

This approach makes research more relevant and helps ensure the results are optimally applied



THINKING AT UBC – UNIVERSITY CULTURE CHANGE EXPERIMENT

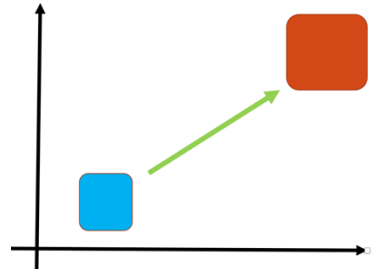


CITYSTUDIO



GREENEST CITY SCHOLARS PROGRAM

**INTERNSHIPS FOR UBC
GRADUATE STUDENTS IN THE
CITY OF VANCOUVER**



Teaching how to surface
research questions in
collaborative teams
working on complex
challenges globally



Helping [cities](#) around the world become more resilient to the physical, social, and economic [challenges](#) that are a growing part of the 21st century.

Focus on ACUTE SHOCKS and CHRONIC STRESSES



100 Cities



RESILIENCE FRAMEWORK



100 RESILIENT CITIES

GLOBAL NETWORK FOR ADVANCED MANAGEMENT



*32 top business schools
multilateral. multi-issue.*

To drive innovation and create value by connecting leading global business schools, their resources, and their stakeholders.

Guiding Aspirations

The Global Network for Advanced Management will become recognized as:

- an institutional innovation transforming global management education and practice;
- a global community based on connections among students, faculty, staff, and alumni;
- an enabler of experimentation in teaching and learning;
- a catalyst of distinctive opportunities for research and faculty collaboration;
- a promoter of global alumni engagement;
- a source of relevant knowledge, experience, and effective practices in global management;
- a platform for building collaborative learning systems to address pressing global issues;
- an effective mechanism to develop global leaders who can thrive in diverse and complex contexts;
- a leading voice for the positive impact that business can and should have on society and the environment; and
- a consequential differentiator for each member school.

IMPACTFUL COLLABORATION ACROSS THE 5 PILOTS WITHIN GNAM

SCHOOLS CO-CREATE AND DELIVER



Market-based metrics & strategy



Innovation, technology & entrepreneurship



Private investment & environmental performance



Inclusive business models & social enterprises



Development policy & management



International health & development



Political economy of sustainable development



Social progress index & development

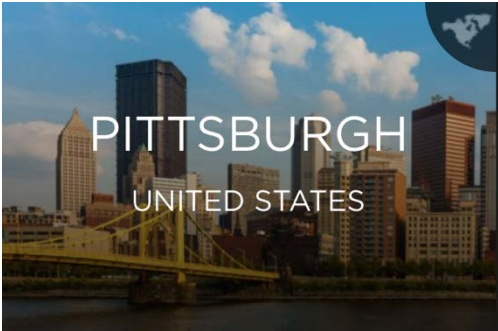
STUDENTS

- ~250 from 15 GNAM schools
- 15+ nationalities
- 18 time zones
- Business, Forestry & Environmental studies, Public health, Journalism, Public Policy, Architecture, Urban design, Community planning

COLLABORATORS

- 20+ project sponsors
- 50+ guests/experts from cities, corporations, community organizations
- 100 Resilient Cities & Rockefeller Foundation

BY MARCH 2018, PROJECTS COMPLETED FOR...

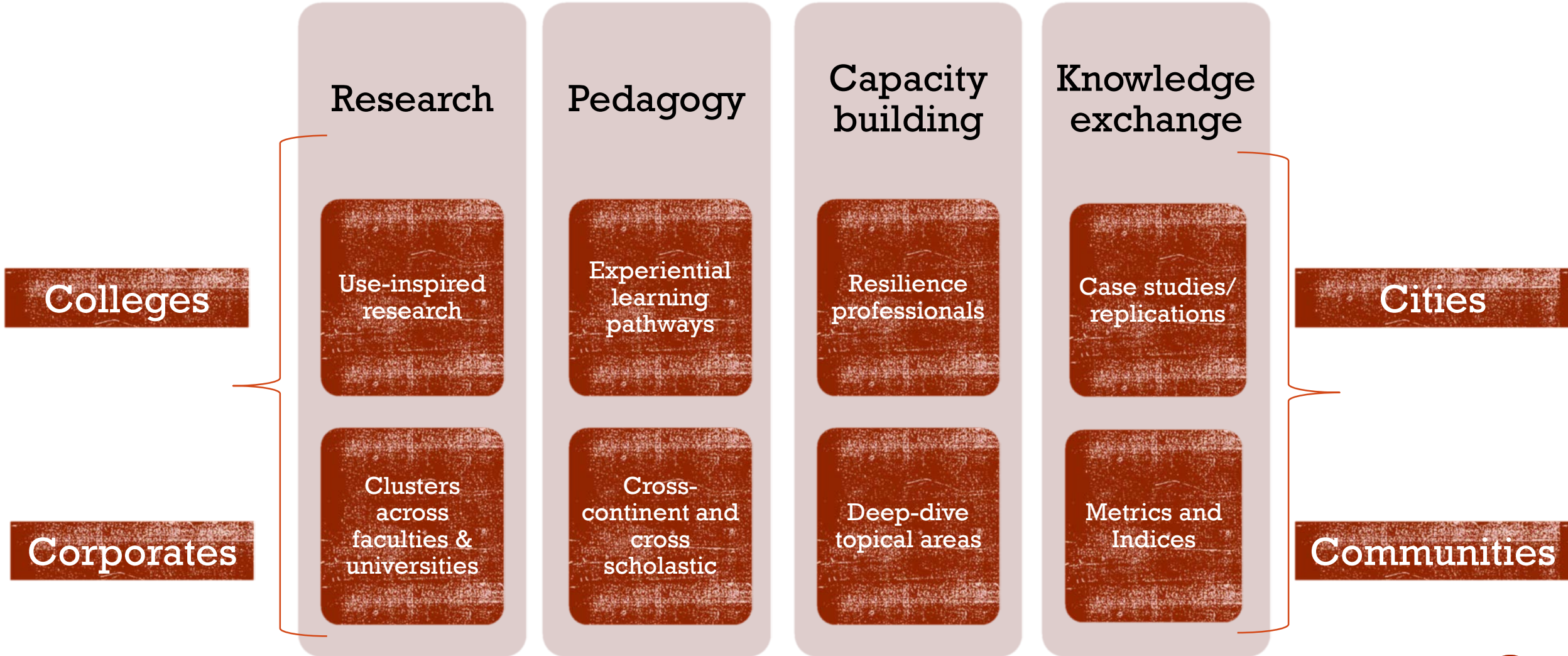


Collaborative on Urban Resilience and Effectiveness



Global collaborative to mobilize talent, knowledge, and experience across disciplines, universities, community organizations, corporates to drive urban prosperity, innovation and development

VALUE PILLARS







10,000 Cities



