Urban Resilience



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Hawassa,

Nov. 2024

1. Definition and Basic Concept

Urban resilience refers to the ability of an urban system-and all its Constituent socio-ecological and socio-technical networks across temporal and spatial scales-to maintain or rapidly return to desired functions in the face of a disturbance, to adapt to change, and to quickly transform systems that limit current or future adaptive capacity.



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In this definition, urban resilience is dynamic and offers multiple pathways to resilience (e.g., persistence, transition, and transformation). It recognizes the importance of temporal scale, and advocates general adaptability rather than specific adaptedness.

The urban system is conceptualized as complex and adaptive, and it is composed of socio-ecological and socio-technical networks that extend across multiple spatial scales. Resilience is framed as an explicitly desirable state and, therefore, should be negotiated among those who enact it empirically



AREAS THAT DRIVE RESILIENCE

2. AREAS THAT DRIVE RESILIENCE

Economy

A diverse number of industries

A dynamic economy to generate growth

Conditions allow innovation to take place

People have access to employment, education, services, skills training.

Governance

Clear leadership and management

Strategic and integrated approaches are taken by leaders

Public sector has the right skills

Government is open and transparent

Society

Society is inclusive and cohesive

Citizens' networks in communities are active

Neighbourhood is safe

Citizens enjoy healthy lives

Environment

Ecosystem is sound and diverse

Infrastructure can meet basic needs

Adequate natural resources are available

Coherent policy towards land use



3. HOW IS RESILIENCE MEASURED?



4. A FRAMEWORK ON RESILIENT CITIES

The Resilient Cities project is structured into 4 sections:

1. A framework for resilient cities. It provides a working definition of a resilient city, the drivers of resilience in order to better identify what resilience looks like in an urban context, and the policy mechanisms that could be of benefit.

2. The indicators of resilience.

3. The policy actions taken by city governments, as well as their collaboration with national governments.

4. Experiences of case studies of cities in building their resilience.



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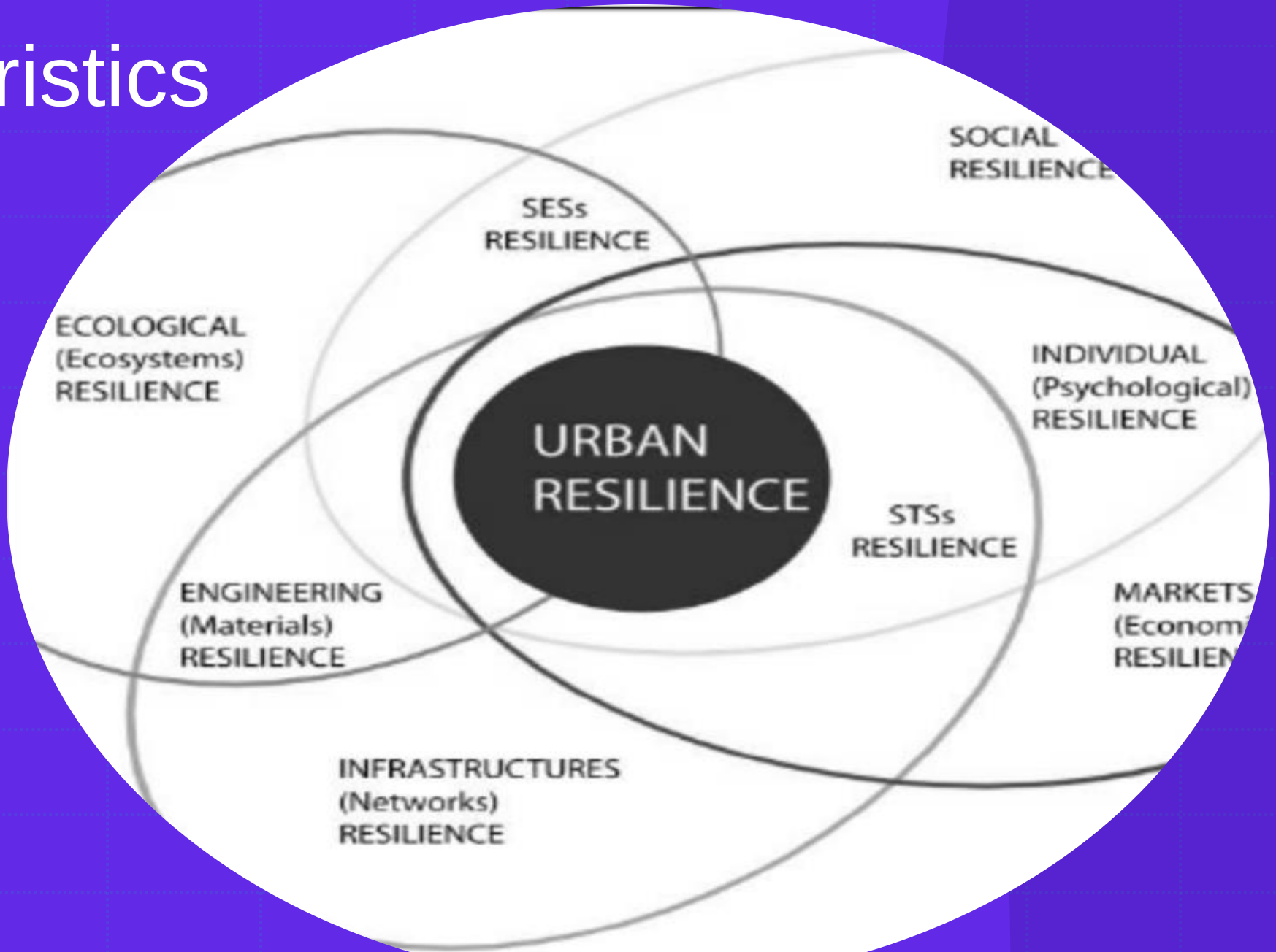

City Resilience Framework
Leadership & Strategy
Health & Wellbeing
Infrastructure & Environment
Economy & Society
Fosters Long-Term & Integrated Planning
Meets Basic Needs
Empowers a Broad Range of Stakeholders
Supports Livelihoods & Employment
Promotes Leadership & Effective Management
Ensures Public Health Services
Provides & Enhances Natural & Manmade Assets
Fosters Economic Prosperity
Ensures Continuity of Critical Services
Ensures Social Stability, Security & Justice
Provides Reliable Communication &Mobility
Promotes Cohesive & Engaged Communities

5. Case Studies

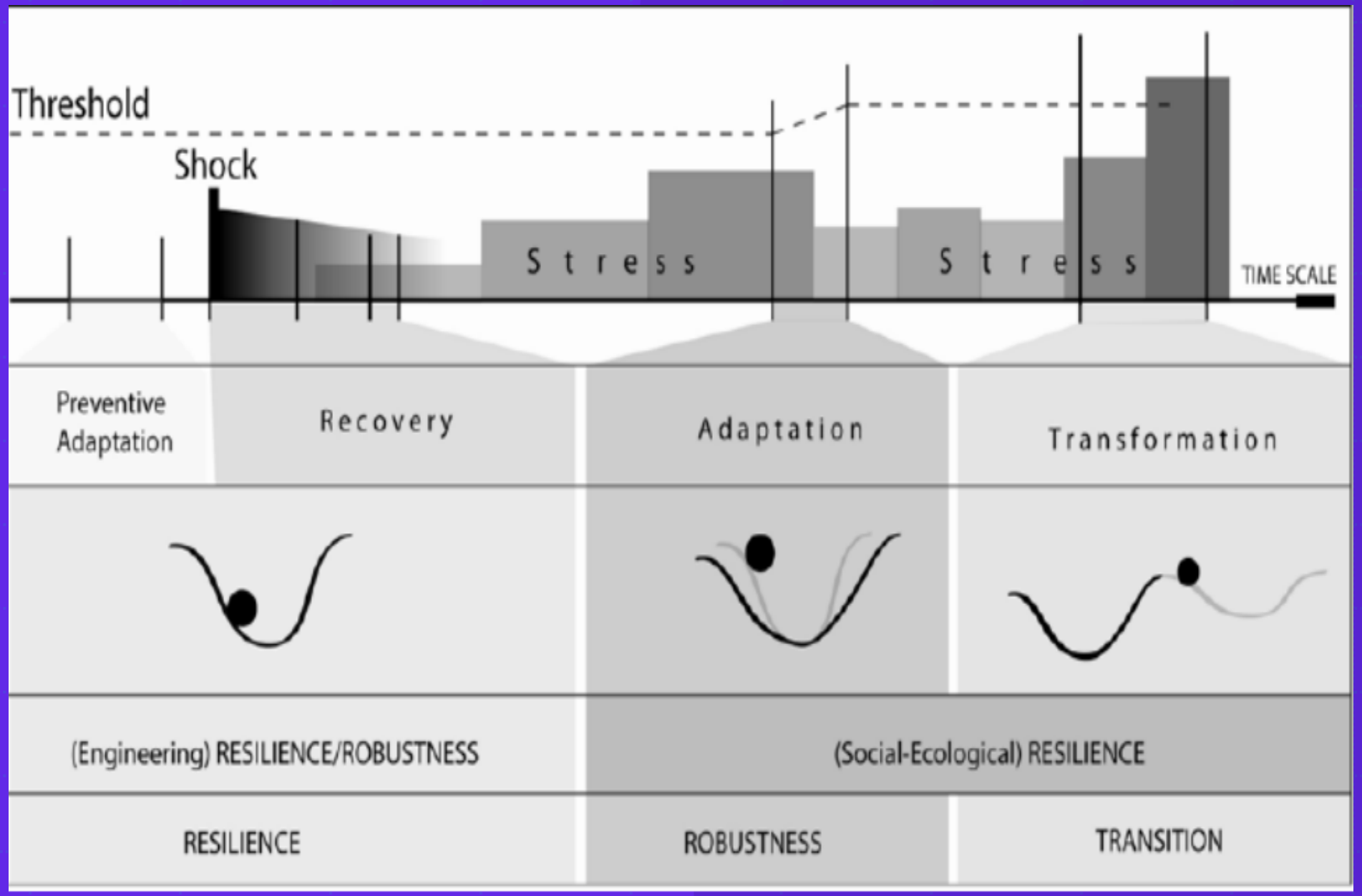
- Antalya (Turkey)
- Belo Horizonte (Brazil)
- Bursa (Turkey)
- Cardiff (UK)
- Kobe (Japan)
- Kyoto (Japan)
- Lisbon (Portugal)
- Oslo (Norway)
- Ottawa (Canada)
- Tampere (Finland)



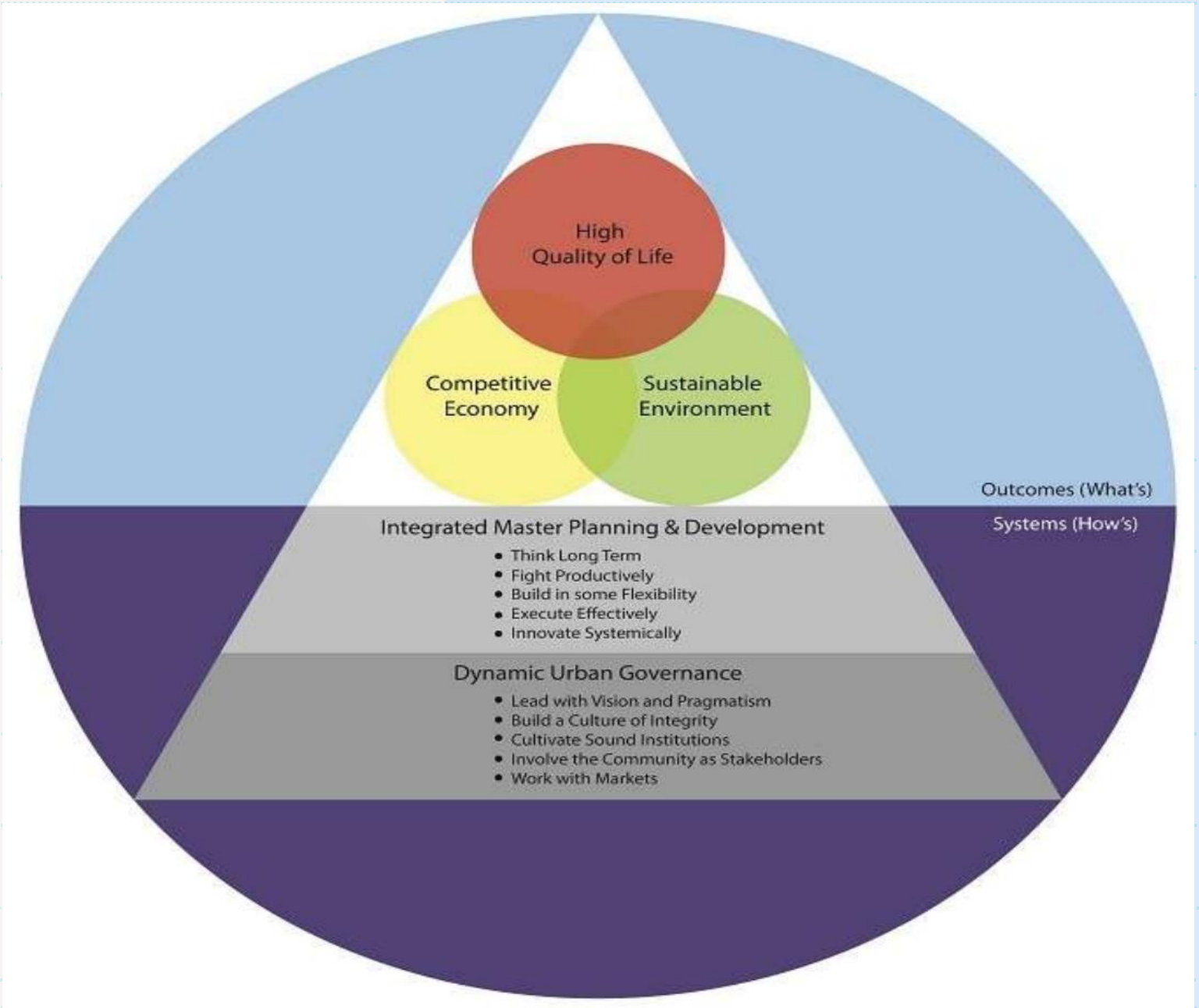
6. Characteristics of Urban Resilience



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Threshold
Shock
Stress
Stress
TIME SCALE
Preventive Adaptation
Recovery
Adaptation
Transformation
(Engineering) RESILIENCE/ROBUSTNESS
(Social-Ecological) RESILIENCE
RESILIENCE
ROBUSTNESS
TRANSITION

7. Liveable cities created by resilience



8. The Basic Essentials in Building Resilient Cities

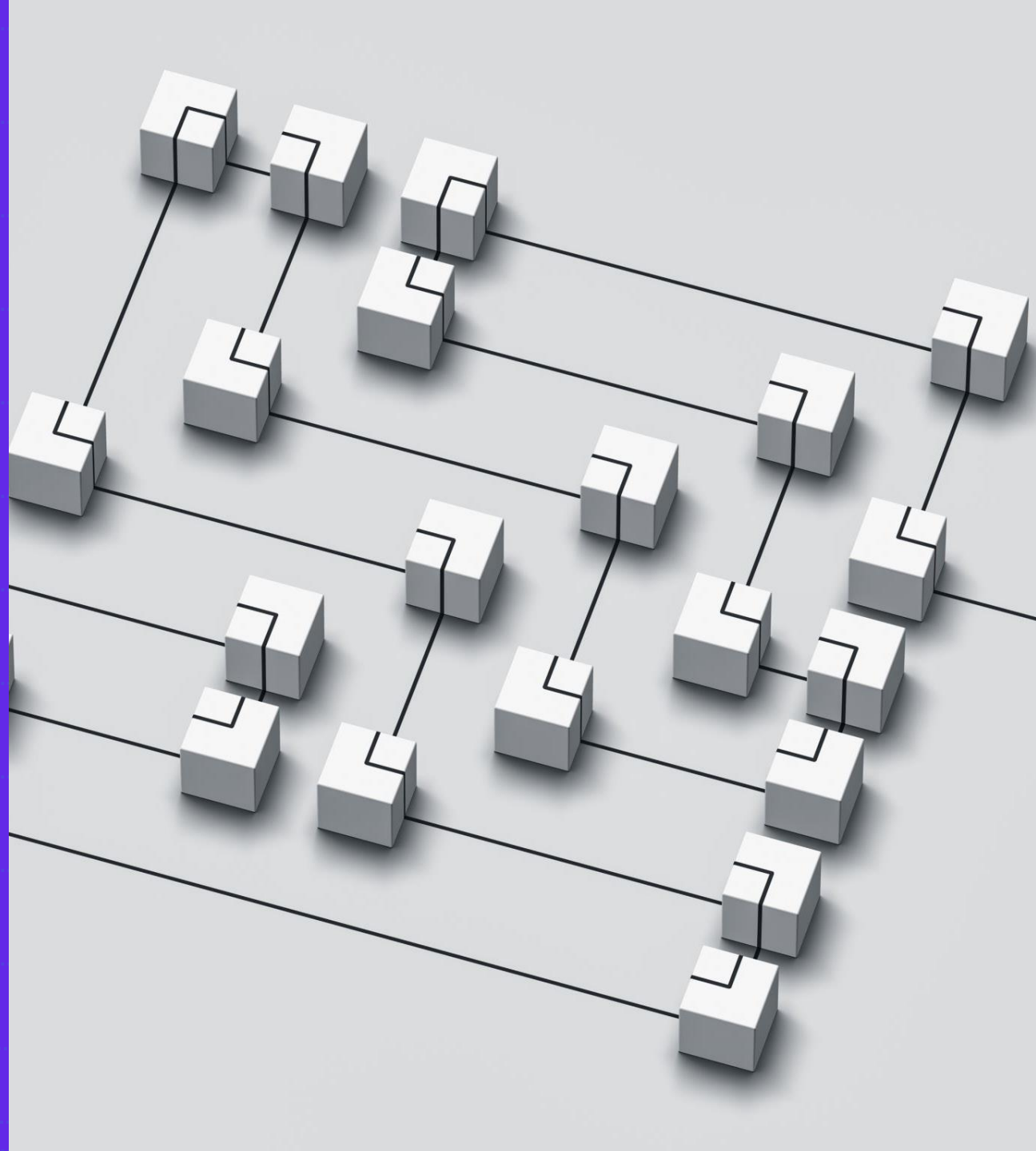
1. **Essential 1: Organize for disaster resilience**
2. **Put in place an organizational structure with strong leadership and clarity of coordination and responsibilities. Establish Disaster Risk Reduction as a key consideration throughout the City Vision or Strategic Plan.**



Why?

Having organizational structure and clear processes in place to respond to the key issues that affect urban resilience to natural hazards is imperative.

Developing an organizational structure means strong leadership, clear delineation of responsibilities and coordination mechanisms, effective stakeholder engagement information dissemination and lines of communication, and well-defined risk reduction strategies and policies and mechanisms for risk reduction.





Essential 2: Identify, understand, and use current and future risk scenarios

Maintain up-to-date data on hazards and vulnerabilities. Prepare risk assessments based on participatory processes and use these as the basis for urban development of the city and its long-term goals.

Why?

Identifying probable and worst case risk scenarios based on the understanding of multiple and changing hazards, geographical and economic exposure, and vulnerabilities can inform current and future investment decisions that will contribute to improved resilience.

