



The Boston Resilience Strategy

a suitable TRENd Project case study

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Outline

1. TRENd Case Studies Approach
 - objectives
 - methodology
 - focus
 - key aspects
 - multi-level spatial focus
2. Boston as a case
 - Introduction
 - Boston Resilience Strategy
3. Indicators/Metrics
4. Suggestions for case study analysis

Aim

- Provide useful elements to stimulate the discussion on the TRENd case study approach starting from Boston as suitable case for the TRENd Project in order to:
 - Understand how the Boston Resilience Strategy is structured in line with the TRENd objectives, and
 - Discuss about the possible indicators/metrics useful for the TRENd case study analysis



1. TRENd Case Studies Approach

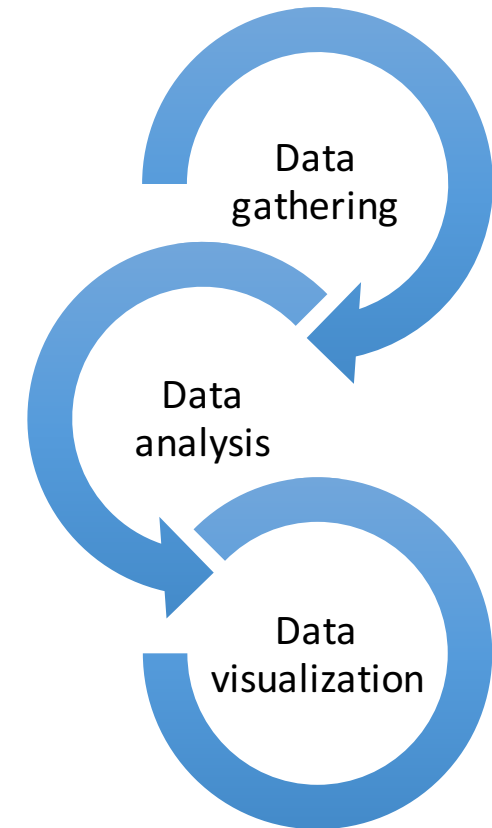
Purpose

TREN D seeks to

1. Identify and examine the factors enabling or hindering the Transition strategies from a governance standpoint;
2. Assess the territorial features critical to foster a resilience-building process;
3. Unveil the unexploited potentials for re-shaping development trajectories disclosed through the windows of locational opportunities offered by external shocks regions are continuously exposed to.

Methodology

- Literature review on evolutionary economics, resilience, TM, spatial planning;
- Quantitative data analysis: socio-economic and spatial data at different geographic levels;
- Qualitative data analysis: on-line and face-to-face interviews with public and private stakeholders, surveys (observations, reports and questionnaires)



Key Aspects

SOCIAL COHESION

addressing the increasing regional disparities during the implementation of the EU Cohesion Policy

GOVERNANCE

more coordinated for spatial planning and more tailored policy making and delivery

ECONOMIC EQUITY

through economic diversification

BUILT ENVIRONMENT

urban regeneration

Multi-level Spatial Focus

- Regional and Local dimensions are both crucial for the investigation
 - “The need of a different policy and institutional focus able to respond rapidly and flexibly to technological, market and social changes;
 - The need to develop policy support integrated, coordinated and tailored to specific national, regional or even local contexts.
 - The need of differentiated (or place-based) strategies for the adaptation to specific shocks generated by globalisation and market integration”. (Bachtler, Martins, Wostern and Zuber, 2017)
- Cities could offer the opportunity to scale up resilience at regional level, providing coordination, integration and context-specific responses.



2. Boston as a Case

Introduction (1)

A resilient city is:

- **“REFLECTIVE**: utilizing past experience to inform future decisions
- **INCLUSIVE**: prioritize broad consultation to create a sense of shared ownership in decision-making
- **RESOURCEFUL**: recognizing alternative ways to use resources
- **INTEGRATED**: bring together a range of distinct systems and institutions
- **ROBUST**: conceived, constructed and managed systems
- **REDUNDANT**: spare capacity purposively created to accommodate disruption
- **FLEXIBLE**: willingness to adopt alternative strategies in response to changing circumstances”

Introduction (2)

- For the City of Boston, resilience means:
 - An equitable, inclusive growth;
 - An integrated approach;
 - A societal capacity to respond to change.
- The GUIDING PRINCIPLE is “to create citywide resilience is to embed racial equity, social justice, and social cohesion within infrastructure, environmental, social, and economic aspects of resilience”.

Introduction (3)

- Despite Boston is a growing city and acknowledged as a prosperous city, it shows persistent socio-economic inequalities.
- Contemporary social, economic and environmental shocks and stresses pushed Boston to become one of the US pioneers in adopting and implementing resilience-oriented strategies.

Introduction (4)

- Aspects to investigate:
 - *How the City of Boston is preparing to respond and adapt to its challenges?*
 - *How the resilience-oriented process has been fostered?*
 - *How the resilience capacity is measured?*

The Boston Resilience Strategy (BRS)

- developed within the 100 Resilient City partnership
- adopted in 2017 by the City of Boston
- together with the Boston Imagine 2030 plan translated the concepts of adaptation and responsiveness within the policy approach (at local level)
- It aims to transform **challenges** into **opportunities**.

BRS: Development Process (1)

- The City of Boston, led and promoted a participatory process to identify the shocks and stresses it is exposed to.
- Objectives: Racial equity, social cohesion and a more equitable development

WHAT ARE OUR CHALLENGES AND OPPORTUNITIES?

▪ ACUTE SHOCKS

- Extreme Weather
- Infrastructure Failure
- Flooding
- Cyberattacks & Terrorism

▪ CHRONIC STRESSES

- Poverty/Inequity
- Lack of Social Cohesion
- Lack of Affordable Housing
- Aging Infrastructure
- Sea Level Rise
- Educational Inequities

OPPORTUNITIES

- Equitable access to intergenerational wealth
 - Community wellbeing from childhood
- Emergency preparedness and capacity of critical infrastructure
 - Collaboration in and delivery of community governance
 - Resilience integration in all long-term planning

WHAT DO WE WANT TO ACHIEVE?

- A racially equitable and socially integrated Boston.
- Equitable access for all Bostonians to the resources and pathways that create intergenerational financial stability.
- A culture of psychological resilience that supports community healing from past and future trauma impacts on children and youth.
- 21st century infrastructure that meets the needs of all Bostonians while adapting to current and emerging threats.
- Improved City services through increased collaboration between residents, organizations, and government.
- Resilience integrated into policies, practices, decision-making and planning by Boston communities and organizations.

BRS: Development Process (2)

- Stakeholders involvement
- Data analysis and coordination
- Partnership with the Boston Resilience Collaborative (BRC)

BY THE NUMBERS

11,700

People Engaged

167

Meetings with community members

25

Presentations

18

Workshops

12

Research and Evaluation Collaborative sessions and presentations

35

Other events

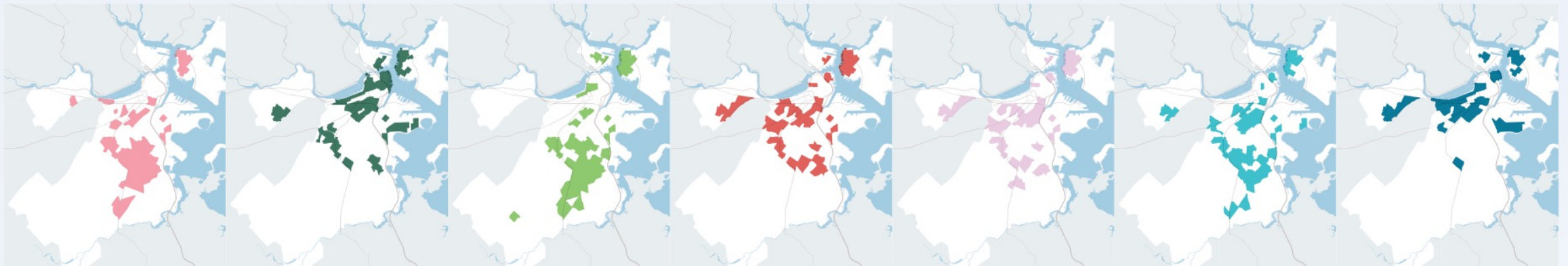
BRS: Development Process (3)



Challenges (shocks/stresses):

- economic inequality
- climate changes and environmental stresses
- terrorism
- community trauma
- health inequalities
- educational opportunities and achievement gaps
- aging and inequitable transportation infrastructures
- systemic racism

Vulnerable populations/areas identified in Boston



People of Color

Older Adults

Children

People with
Limited English
Proficiency

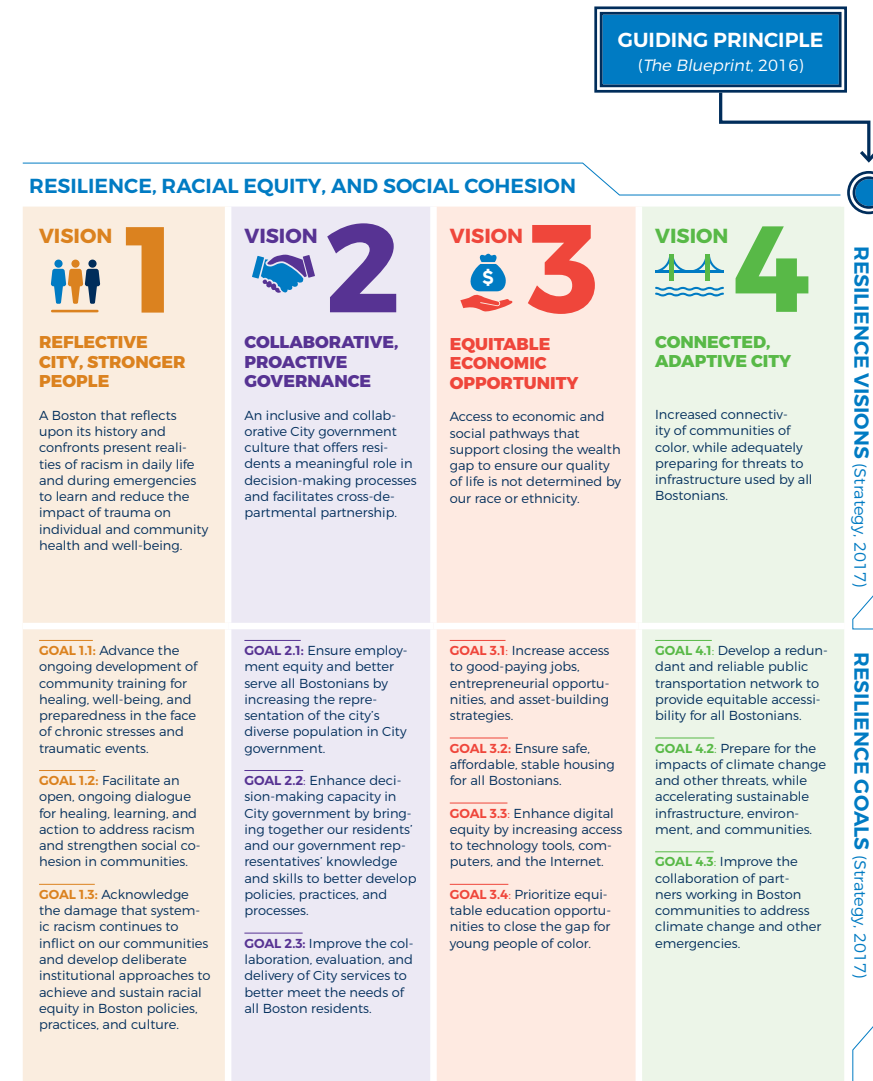
People
with Low to
No Income

People with
Disabilities

Cases of Medical
Illness

BRS: Visions

- “**Four long-term Visions for Boston**, each of which has a corresponding set of Goals and Initiatives.
- Visions support Bostonians’ aspirations for a city that can withstand and surmount the **impacts of every unexpected shock and stress**
- Goals, and Initiatives are informed by the historical perspective, the analysis of current conditions, and the feedback of the stakeholders”.

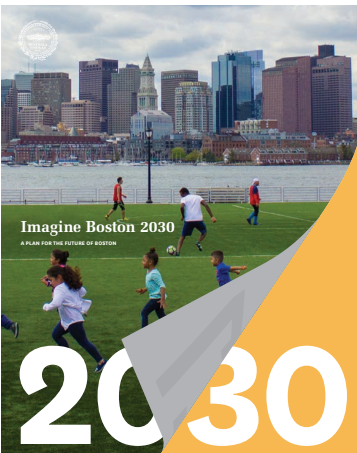
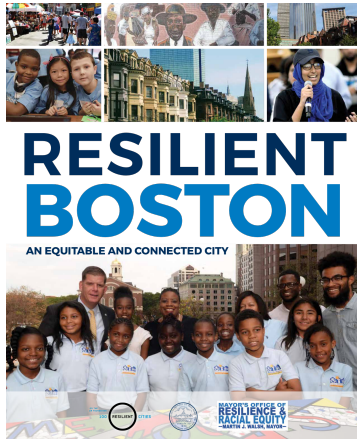


BRS: Implementation

- “The Strategy’s implementation must be ***shared by all stakeholders***, including City government, community partners, institutions, and individual residents”.
- “The Strategy ***is grounded in equity*** and can be used by stakeholders to trigger action, investment, and support to facilitate change, both from within City government and more broadly throughout Boston”.



BRS and Boston Imagine 2030



- “A major goal of Resilient Boston is to **bring together other major Boston planning efforts into one coordinated strategy** to leverage investment, maximize benefits, streamline efficiencies across implementation agencies, and embed racial equity and social justice”



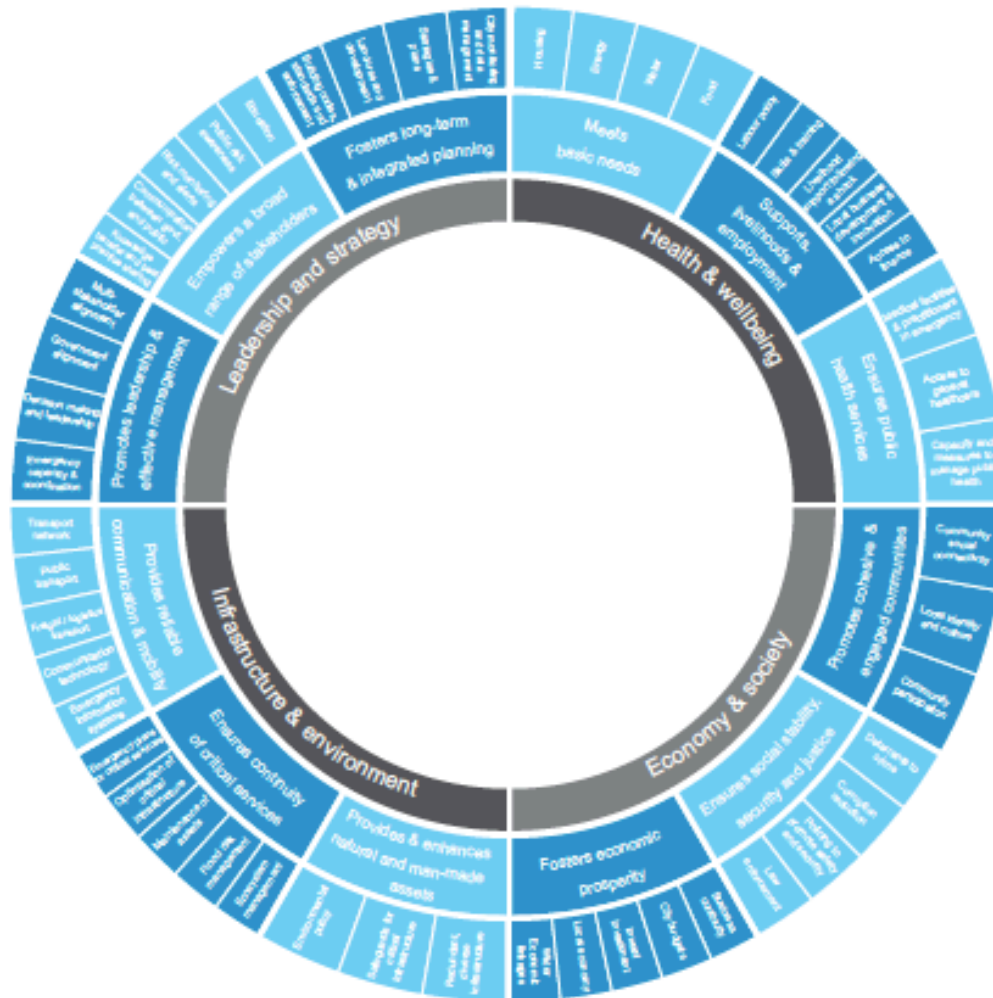
3. Indicators/Metrics

- So far, concerning the indicators/metrics useful for the TRENd case study analysis, what can we learn from the BRS?

City Resilience Index

- The BRS is framed on the City Resilience Index developed by the ARUP work
- “the CRI might be considered as toolkit which comprises:
 - **City Resilience Framework** – a means to understand city resilience; 4 dimensions, 12 goals
 - **City Resilience Indicators** – 52 indicators which incorporate the ‘qualities’ and tell us how city resilience can be observed.
 - **City Resilience Assessment** – combining a qualitative and quantitative assessment that enables cities to assess their strengths/weaknesses, also baseline and monitor their resilience over time,
 - **City Resilience Database** – the data collected from multiple cities that can be analysed to refine the toolkit, and create greater understanding of resilience”.

City Resilience Framework (CRF)



4 dimensions:

Health & Wellbeing
Economy & Society
Leadership & Strategy
Infrastructure & Environment

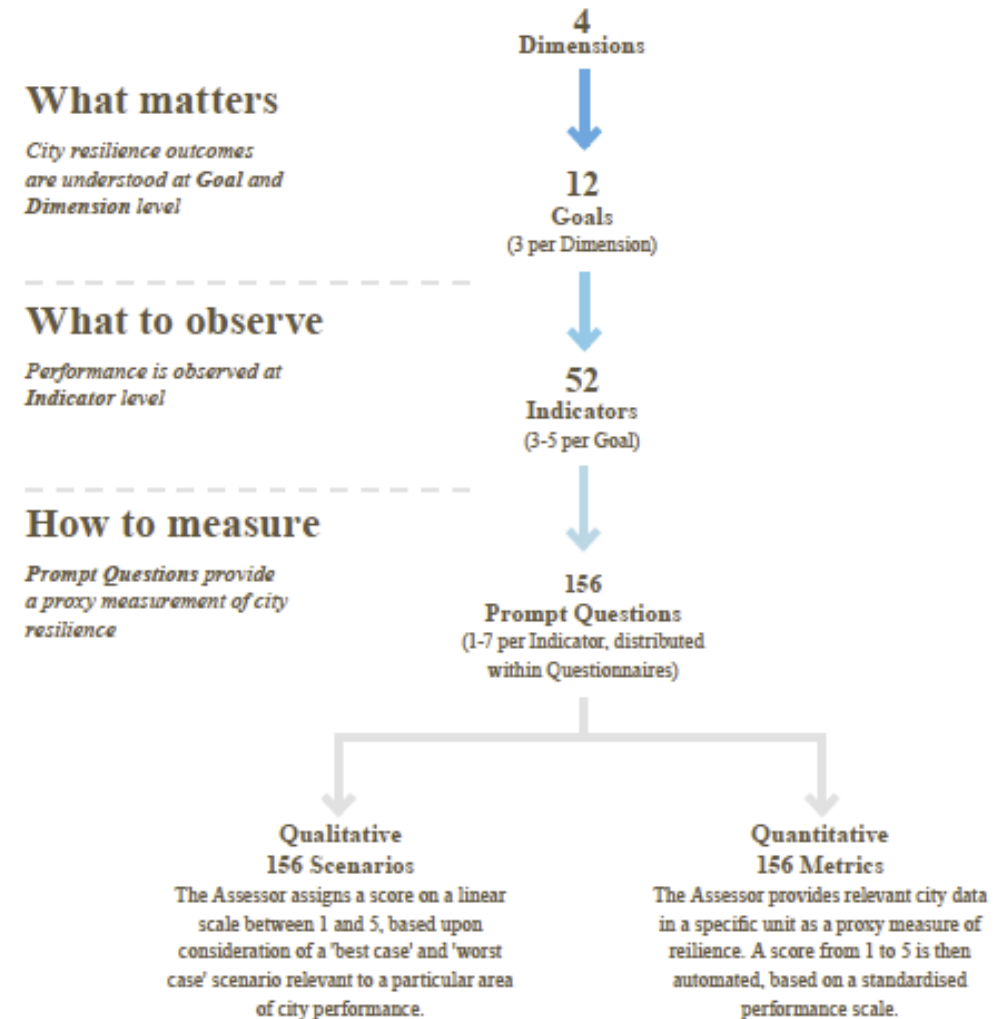
12 goals

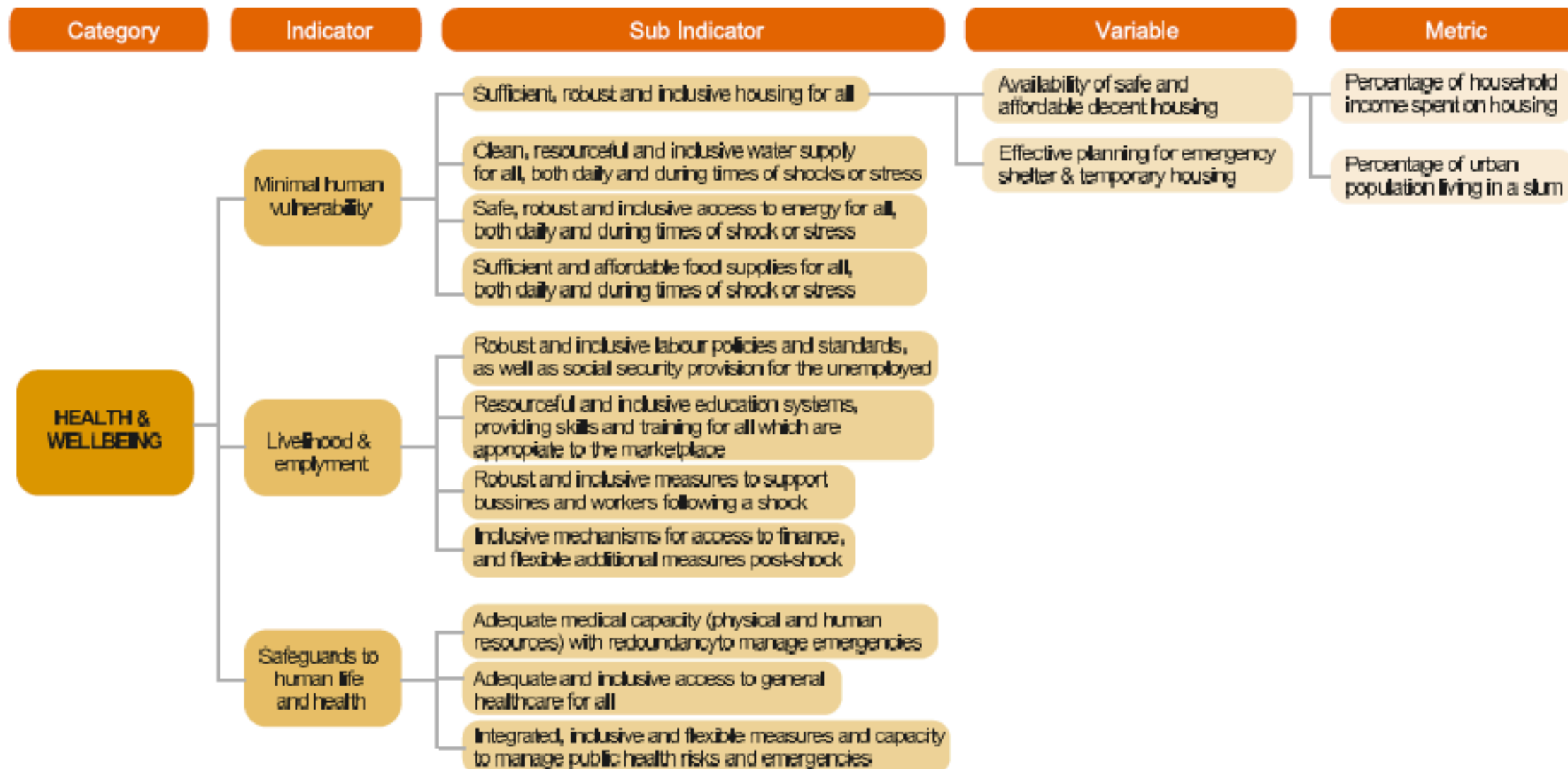
52 indicators

City Resilience Indicators

- “a set of indicators, variables and metrics that can be ***used by cities to measure their resilience*** and compare their performance over time”.
- “The City Resilience Index provides a comprehensive and technically ***robust basis for measuring city resilience*** that is globally applicable”.
- “It comprises ***52 indicators*** which are assessed through 156 questions, drawing upon both ***qualitative and quantitative data***”.

Figure 15: The basis of the City Resilience Index



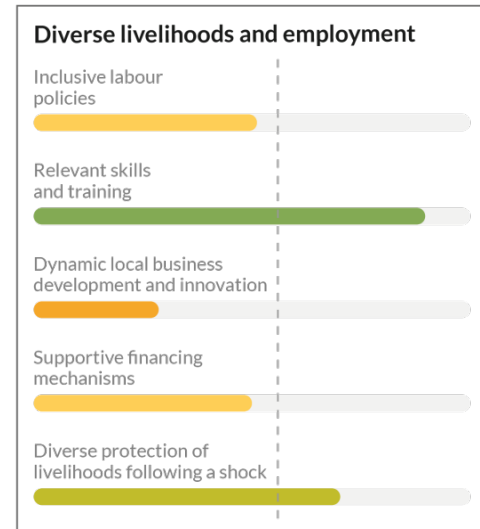


CRI Dashboard

The radial diagram shows the performance of the city on each of the 12 Goals of the City Resilience Index.



For each goal, scores for constituent indicators are displayed in the Indicator dashboard below the radial diagram.



Worst Best

Resilience performance can be interpreted using the above scale.

Suggestions for Case Study Analysis

- The example of the City of Boston confirms how city dimension is relevant to set out resilience-oriented strategies
- The BRS is seen as a cross-cutting element of the existing planning documents and tools. It relates to social, economic, and environmental/physical dimensions.
- To build robust resilience-oriented strategies, a context-based analytical process is necessary, based both on quantitative (indicators, metrics) and qualitative (interviews, workshops, community engagement activities) data.
- The CRI can serve as a possible starting point for the TREN D case study approach for measuring and monitoring resilience-oriented strategies
- It could be tenable to integrate the CRI datasets with concepts and indicators from literature review and case-based evidences

The 100 Cities Resilience Strategy: EU-US perspective?



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Thank you!

