

The Boston Resilience Strategy a suitable TREnD Project case study

Giada Anversa, Gianmarco Cantafio, Yapeng Ou, Pasquale Pizzimenti CLUDsLab

TREnD Kickoff Meeting Reggio Calabria (IT) 24-25 June 2019



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

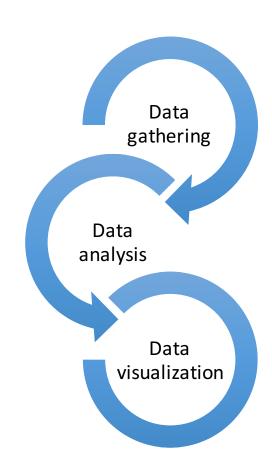
TREnD seeks to

- Identify and examine the factors enabling or hindering the Transition strategies from a governance standpoint;
- Assess the territorial features critical to foster a resilience-building process;
- 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-toface 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 dimesions 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 decisionmaking
- 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 aknowledged 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)

RS
Щ
M
ш
Ŧ
8 ≺

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)

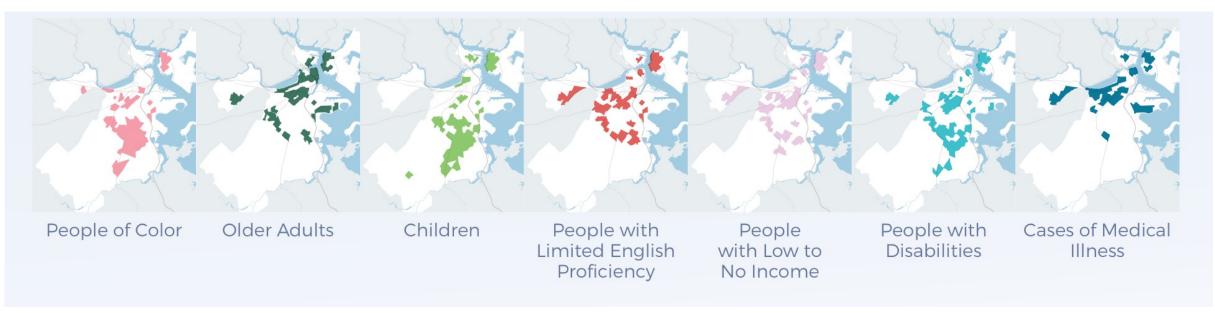


Challenges (shocks/stresses):

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



Vulnerable populations/areas identified in Boston





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".



RESILIENCE, RACIAL EQUITY, AND SOCIAL COHESION



REFLECTIVE CITY, STRONGER PEOPLE

A Boston that reflects upon its history and confronts present realities of racism in daily life and during emergencies to learn and reduce the impact of trauma on individual and community health and well-being.

VISION 2

COLLABORATIVE, PROACTIVE GOVERNANCE

An inclusive and collaborative City government culture that offers residents a meaningful role in decision-making processes and facilitates cross-departmental partnership. VISION 5

EQUITABLE ECONOMIC OPPORTUNITY

Access to economic and social pathways that support closing the wealth gap to ensure our quality of life is not determined by our race or ethnicity VISION

CONNECTED, ADAPTIVE CITY

Increased connectivity of communities of color, while adequately preparing for threats to infrastructure used by all Restonians

GOAL 1.1: Advance the ongoing development of community training for healing, well-being, and preparedness in the face of chronic stresses and traumatic events

GOAL 1.2: Facilitate an open, ongoing dialogue for healing, learning, and action to address racism and strengthen social cohesion in communities.

GOAL 1.3: Acknowledge the damage that systemic racism continues to inflict on our communities and develop deliberate institutional approaches to achieve and sustain racial equity in Boston policies, practices, and culture.

GOAL 2.1: Ensure employment equity and better serve all Bostonians by increasing the representation of the city's diverse population in City government.

GOAL 2.2: Enhance decision-making capacity in City government by bringing together our residents' and our government representatives' knowledge and skills to better develop policies, practices, and processes.

GOAL 2.3: Improve the collaboration, evaluation, and delivery of City services to better meet the needs of all Boston residents

GOAL 3.1: Increase access to good-paying jobs, entrepreneurial opportunities, and asset-building strategies.

GOAL 3.2: Ensure safe, affordable, stable housing for all Bostonians.

GOAL 3.3: Enhance digital equity by increasing access to technology tools, computers, and the Internet.

GOAL 3.4: Prioritize equitable education opportunities to close the gap for young people of color.

GOAL 4.1: Develop a redundant and reliable public transportation network to provide equitable accessibility for all Bostonians.

GOAL 4.2: Prepare for the impacts of climate change and other threats, while accelerating sustainable infrastructure, environment, and communities.

GOAL 4.3: Improve the collaboration of partners working in Boston communities to address climate change and other emergencies.



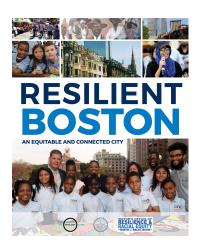
BRS: Implementation

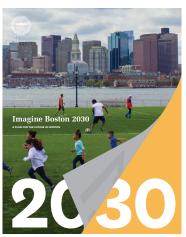
- "The Strategy's implementation must be shared by all stakeholders, including City government, community partners, institutions, and individual residents".
- "The Strategy is grounded in equity and can be used by stakeholders to trigger action, investment, and support to facilitate change, both from 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





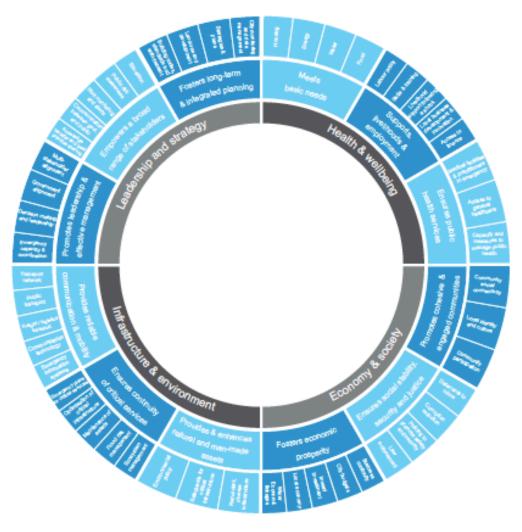


 So far, concerning the indicators/metrics useful for the TREnD case study analysis, what can we learn from the BRS?

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
Leasdership & Strategy
Infrastructure & Environment

12 goals

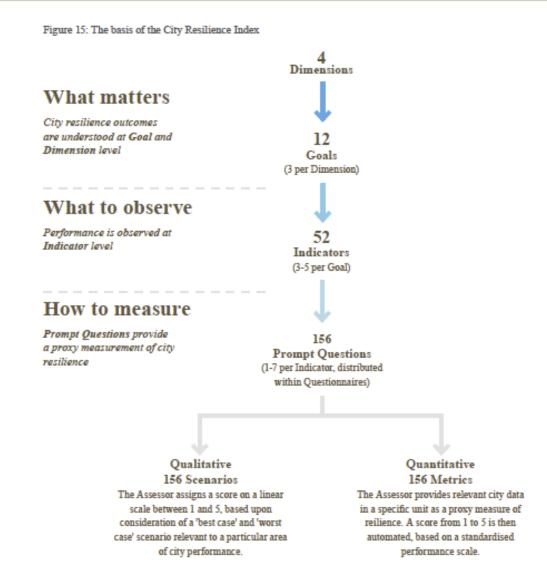
52 indicators





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".











Indicator Sub Indicator Category Sufficient, robust and inclusive housing for all Clean, resourceful and inclusive water supply for all, both daily and during times of shocks or stress. Minimal human vulnerability Safe, robust and inclusive access to energy for all, both daily and during times of shock or stress Sufficient and affordable food supplies for all, both daily and during times of shock or stress. Robust and inclusive labour policies and standards, as well as social security provision for the unemployed. Resourceful and inclusive education systems, HEALTH & providing skills and training for all which are WELLBEING Livelingod & appropriate to the marketplace. emplyment Robust and inclusive measures to support bussines and workers following a shock Inclusive mechanisms for access to finance. and flexible additional measures post-shock Adequate medical capacity (physical and human resources) with redoundancy to manage emergencies Safeguards to human life Adequate and inclusive access to general and health. healthcare for all Integrated, inclusive and flexible measures and capacity to manage public health risks and emergencies.

Variable Metric

Availability of safe and

affordable decent housing.

shelter & temporary housing

Effective planning for emergency

Percentage of household income spent on housing

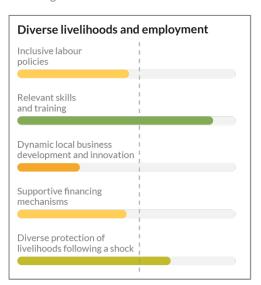
Percentage of urban population living in a slum



CRI Dashboard



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 quantiative (indicators, metrics) and qualitative (interviews, workshops, community engagement activities) data.
- The CRI can serve as a possibile starting point for the TREnD 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?



References

- ARUP (2014). Fieldwork Data Analysis. Research Report Volume 2/6. The Rockfeller Foundation
- Bachtler, J., Martins, J. O., Wostner, P., & Zuber, P. (2017). Towards Cohesion Policy 4.0: Structural Transformation and Inclusive Growth RSA Europe. Brussels. Regional Studies Association.
- City of Boston (2017). Resilient Boston. An Equitable and Connected city
- City of Boston (2016). Boston's Preliminary Resilience Assessment. The Beginning Of A Shared Journey To Healing, Connections, And Action.
- Vandecasteele I. et al. (2019), The Future of Cities Opportunities, challenges and the way forward, EUR 29752 EN, Publications Office, Luxembourg, 2019, ISBN 978-92-76-03847-4, doi:10.2760/375209, JRC116711.
- The Rockfeller Foundation (2016). Measuring City Resilience. Reserch Report Volume 4/6
- Simmie, J., & Martin, R. (2010). The economic resilience of regions: towards an evolutionary approach. Cambridge journal of regions, economy and society, 3(1), 27-43.
- https://www.cityresilienceindex.org/#/resources









Thank you!

