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## PRACTICE

EDIT 12 JULY 2023

BY UIA PERMANENT  
SECRETARIAT

# Cities and Resilience - An Overview

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- They are designed to break new ground from a technological, organisational, and end-user perspective - projects pioneer the use of novel approaches to produce solutions for intractable urban challenges.
- They are highly inclusive/participative and integrated - multiple stakeholders are involved...

## Introduction

UIA urban innovation projects are complex because:

- They are designed to break new ground from a technological, organisational, and end-user perspective - projects pioneer the use of novel approaches to produce solutions for intractable urban challenges.
- They are highly inclusive/participative and integrated - multiple stakeholders are involved because the complex problems confronting cities cannot be addressed successfully by one organisation on its own.
- Due to their novel nature, they require active stakeholder engagement and flexibility on the part of the project partners.
- They require the active engagement of end users to design effective solutions - end-users may need to be engaged at different stages of a project life cycle.

Their inherently participative nature made UIA urban innovation projects more likely to be severely impacted by the COVID-19 freedom of movement restrictions.

### Scope

Before looking in-depth at UIA cities' actions to minimise the impact of the COVID-19 pandemic, we will present a brief review of review of existing research in this area. This research identified initiatives that were led by both public and private sectors. We have summarised the insights they offer around the following three topics:

- Urban resilience and levers for action.
- Measures to help cities build resilience.
- Resilience and UIA capacity building.

## Urban resilience and levers for action

Resilience policy developed before the COVID-19 pandemic in 2020 tends to assume that 'sudden shocks' affecting cities would most likely be due to natural disasters, such as major climatic disturbances (storm damage, flooding etc.) or an earthquake. Seismic activity was identified as a key risk factor by the OECD and is a core focus of their risk assessment models. Consequently, recommendations on how cities can be more resilient were drawn up to respond to these types of events.

This research review suggests that there was little assessment of the likely impact of a pandemic on cities. Where such research existed, it tended to focus on a country's healthcare system. Interest in urban resilience to a pandemic is recent and our literature review reflects this.

### What is Urban resilience?

"Resilience is the ability of a city to avoid or bounce back from an adverse event - it comes from the interplay of vulnerability and adaptive capacity<sup>[1]</sup>".

Policymakers have been looking intensively at the resilience of cities and city regions for over a decade. Studies and policies have been produced by the OECD<sup>[2]</sup>, the JRC<sup>[3]</sup>, ARUP<sup>[4]</sup>, PWC<sup>[5]</sup> and the Rockefeller Foundation

introduced a high-profile funded programme to support cities in their resilience activities.

This research suggests that policy tends to assume cities are geographically (or spatially) defined city regions and assesses their resilience by focusing on their performance after a “shock”.

This literature suggests, moreover, that shocks may be one of two broadly defined types:

- A sudden shock which radically impacts the operation and performance of the city, significantly affecting its governance, citizens, and businesses.
- A gradual decline, comprising a more insidious set of interactions which cause the city’s performance to decline over the medium to long-term (10-15 years) — this decline can encompass a fall in economic activity, in social cohesion, and in well-being that negatively impacts the overall prosperity of the city.

Resilience is therefore not just about responding to significant short-term shocks. To be resilient, cities must also be able to address the causes or effects of long-term pressures that may be contributing to their slow economic or social decline.

## The OECD

The OECD has published a range of papers on city resilience. Many use the following 4-theme model:

*The economy* - being dynamic (growth), having a broad industrial base, supporting innovation, and providing citizens with access to skills and employment opportunities

*Governance*<sup>[6]</sup> - offering clear leadership and management with integrated responses, staffed by people with the right skills and being open and transparent

*Society* - being inclusive and cohesive with strong citizen and community networks and good health

*The environment* - with coherent policies towards land-use, a strong and diverse ecosystem, adequate natural resources, and infrastructure that can meet basic needs.



Figure 2 - OECD 4-theme model

In line with other sources, the OECD proposes that cities that are rated strongly for these four themes will be more resilient. It also indicates that resilient cities exhibit a strong and balanced social economy – with, in particular, low levels of social isolation and social inequality. In addition, cities with strong social economies recover better after a shock.

## Measures undertaken to help cities to build resilience

### Capacity building

100 Resilient Cities initiative - The Rockefeller Foundation

In 2013, the Rockefeller Foundation pioneered 100 Resilient Cities (100RC) to help more cities build resilience to the physical, social, and economic challenges that are a growing part of the 21st century. Cities in the 100RC network were provided with resources to help them to develop a resilience roadmap. The 100RC initiative provided cities with three areas of support:

- Financial and strategic guidance on establishing a Chief Resilience Officer role, which was an innovative position in city governments - the Officer led their city's resilience efforts.
- Access to solutions, service providers, and partners from the private, public and NGO sectors capable of helping 100RC cities to develop and implement their resilience strategies.
- Membership of a global network of 100RC member cities to foster peer learning and facilitate cross-city capacity building.

The 100 cities selected represent more than one fifth of the world's urban population. Half of these cities had developed a resilience strategy by the end of first round of funding in 2019 and the Rockefeller Foundation extended funding (\$8m) to continue supporting resilience officers roles going forward.

### Specific measures to help cities respond to COVID-19

#### OECD Recommendations for COVID-19

The OECD published research<sup>[7]</sup> into the impact of COVID-19 on cities which reviewed the effectiveness of cities' responses. Because this research was published in the early stages of the pandemic (July 2020) it proposes measures that were anticipated would be impactful rather than ones that have been observed to be impactful when responding to COVID-19.

10 key OECD observations to reinforce the design of city resilience policies:

- COVID-19 impacts were asymmetric across territories, yet many policies were place-blind and uniform - there is a need for place-based and people-centred approaches.
- COVID-19 was a health crisis that seriously impacted both the economic and social performance of cities.
- When considering public space, urban design and planning, cities should shift from a target of increasing mobility to one of increasing accessibility.
- There is a need to be aware of and to take action to eliminate inequality between people and places.
- The health problem is not related to urban density but rather to structural inequalities and the quality of urbanisation.
- Digitalisation will remain a key component of the 'new normal'.
- Environmental awareness made the transition towards clean mobility and circular economy more politically and socially acceptable.
- Good City Governance leads to higher levels of trust between citizens and their governments, which is critical to implementing effective responses to shocks.
- The COVID-19 shock calls for a stronger focus on resilient cities; preparedness to future shocks requires managing who does what at which scale and how.
- Global agendas (SDGs, New Urban Agenda, Sendai Framework) are relevant for reshaping planning, policy, strategy, and budget allocations from the ground up.

#### PWC's proposed policy response framework to COVID-19

The consultancy firm PWC developed a response framework that it proposes can help cities to be more resilient. We chose it for inclusion here as it is one of the few frameworks developed to assist cities to respond to the COVID-19 pandemic specifically. PWC supports this model with case study examples from Europe (Helsinki and Vienna), Asia, and the USA. The framework provides a structure through which cities can evaluate threats and respond to them.

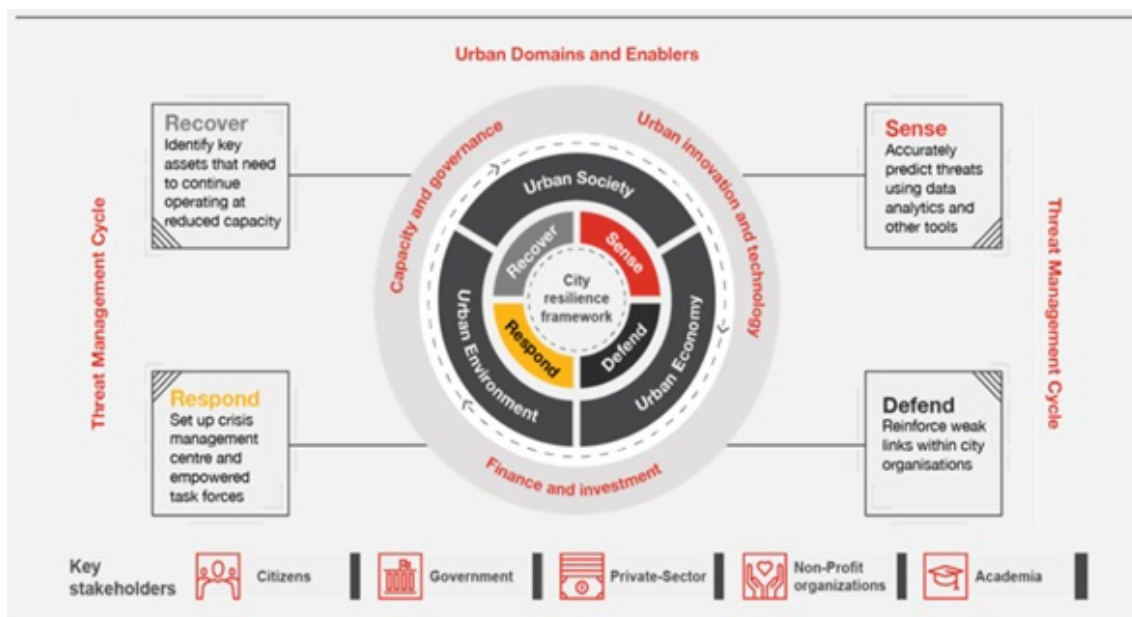


Figure 3 - PWC Framework

The framework is structured around a four-stage process (Sense-Defend-Respond-Recover), which comprises a

mix of stakeholder engagement, repurposing resources (people and physical assets) and using smart data.

PWC proposes that smarter cities perform better when attempting to maintain business-as-usual services and activities after experiencing an extreme shock.

### **From the guidance of the resilience literature to UIA capacity building lessons**

The COVID-19 pandemic clearly fell within the 'sudden shock' category - however, the impact of global pandemics is not a criterion that stands out as having been a resilience risk factor for cities<sup>[8]</sup> in the literature we reviewed. Neither did COVID-19 lead to physical damage to cities of the kind that would be caused by the natural disasters that have typically been used as the foundation to craft cities' resilience indices pre-COVID-19.

As a conclusion to this review of the policy guidance for cities confronting unforeseen shock events, we would note that COVID-19 appears notably atypical:

- It had a global impact not limited to the localised geography of a city or city region.
- It led to massive disruption of the global economy and global supply chains which, in turn, had a severe impact on local city-region economies.
- Natural disasters tend to be confined to a specific geographical or spatial location where the affected area can be assisted by resources from surrounding (unaffected) areas after the catastrophic event. - COVID-19 affected these surrounding geographic areas (regions, countries etc) equally so cities could not rely on help from them or from the national level (as would be the case after a flood or other natural disaster).
- Citizens' freedoms of movement were significantly restricted, which undermined the effectiveness of social networks.
- Social distancing and the forced isolation of the elderly significantly impacted family cohesion as did the closure of schools, colleges, and universities - again, social networks were impacted negatively.
- Residential dwellings with private outdoor spaces became highly desirable - these disadvantaged cities where proportionately more of the population live in apartments - dwellings with private gardens tend to be out of town.
- If lockdown requests by leaders were to be obeyed, adherence to COVID-19 social distancing policies required high levels of trust between citizens and city leaders - cities with lower levels of trust had less adherence.

### **The contribution of this UIA study**

This UIA study considers a specific set of city-based initiatives (UIA supported projects) and assesses how they adapted to COVID-19 so that their delivery was maintained during the pandemic restrictions. It identifies practical and pragmatic good-practice responses cities had to make to maximise the chances of their projects being implemented in line with their original aims.

UIA projects are novel, pioneering, and require high levels of participation (by partners, other stakeholders, and end-users) to be successful. These types of activities were therefore severely impacted by COVID-19. As a result, this study provides a timely project-oriented complement to the research (summarised above), which focuses more on the policy level.

It looks specifically at effective project management and delivery practice - how project partners responded to maintain project momentum in three delivery-oriented themes: Project & Partnership Management, Citizen & Stakeholder Participation (engagement), and Public Procurement & Finance. It is worth noting that, when they were designed (prior to the pandemic), UIA projects already had social groups and key stakeholders at their heart.

When COVID-19 hit, UIA project leaders had to think laterally to identify how best to engage with their target user groups (communities) at a point in time when people were not allowed to meet in public and had severe restrictions placed on their personal freedoms.

In this regard, the study provides a unique perspective on the ways in which cities responded and the effectiveness of those responses.

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[1] "Resilient cities: A Grosvenor Research Report" by Grosvenor, 2014

[2] Resilient Cities, <https://www.oecd.org/cfe/regionaldevelopment/resilient-cities.htm> (Accessed 18.02.2023)

[3] <https://urban.jrc.ec.europa.eu/thefutureofcities/the-resilient-city#the-chapter> (Accessed 18.02.2023)

[4] <https://www.arup.com/perspectives/publications/research/section/city-resilience-index> (Accessed 18.02.2023)

[5] Building more resilient cities to endure COVID-19 and future shocks - PWC

[6] Governance can also be viewed as 'Government' depending on the use case being considered.

[7] Tackling Coronavirus (COVID-19) Contributing to a Global Effort - OECD, 2020

[8] When it was considered, it tended to be part of health-driven impact scenarios by national governments.

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