

Adaptable Cities, Pandemic Mitigation and Crisis Preparedness



NYC, 34th Avenue (Queens), April 2024

Final Report

June 2025

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Acknowledgements

We extend our heartfelt thanks to the 45 experts who generously shared their invaluable insights during interviews and workshops. We are equally grateful to everyone who contributed suggestions and comments through our online survey. Your input was instrumental in co-designing the recommendations presented in this report.

To reference:

Andres, L., Moawad ,P., Appendino, F., Sakai, A., Zepf, M., (2025), Adaptable Cities, Pandemic Mitigation and Crisis Preparedness – Final Report, UCL, London.

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NYC, Manhattan, Soho, November 2021

I. Executive Summary

The **ADAPT4** (Adaptable Cities, Pandemic Mitigation and Crisis Preparedness) project was funded by the British Academy, as part of the programme “Pandemic Preparedness: Lessons to Learn from COVID-19 across the G7”. It aimed to explore how cities have been and can be adapted proactively, within very short timescales, to immediately mitigate the impact of future pandemics on people's health, wellbeing, and local economies. At the same time, it sought to ensure the continuity of cities as rich transactional spaces that host all types of human, economic, financial, and information flows. While the research was situated across the G7 countries (as per the funder's focus), it specifically concentrated on three continents, i.e. North America, Europe, and Asia, and zooms in on four cities: New York City (NYC), London, Paris, and Tokyo. The project comprised four main stages:

- **Global and national mapping:** We reviewed a total of 330 documents and reports, selecting 265 for their relevance. Of these, 195 were used in this report, with 70 excluded from citation.
- **Expert interviews:** Between January and June 2024, we interviewed 45 experts across the G7, including three with global expertise.
- **International workshops:** In November and December 2024, we held four workshops with built environment practitioners in London, NYC, Paris, and Tokyo. The recommendations presented below were co-designed during these sessions.
- **Refining of recommendations:** recommendations were circulated among built environment experts via an anonymised online survey.

The report develops ten core recommendations

1. **Promote experimentation** in urban adaptation—temporary changes can inspire long-term improvements.
2. **Use experimentation as inclusive engagement**, particularly when traditional participation is disrupted.
3. **Ensure flexible, local funding** to enable bottom-up adaptations.
4. **Adopt soft, crisis-specific regulations** to accelerate timely interventions.
5. **Encourage flexible and hybrid governance**, with both local autonomy and national coherence.
6. **Foster trust-based, participatory decision-making**, including for underrepresented groups.
7. **Prioritize knowledge-sharing** and document adaptive strategies.
8. **Empower community hubs** as points for resilience and response.
9. **Integrate technology-enabled planning** to support data-driven crisis management.
10. **View preparedness as ongoing**, embedding resilience into daily planning and governance.

II. Introduction

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- **Refining of recommendations:** Early 2025, recommendations were circulated among built environment experts via an anonymised online survey to receive feedback.

This report is structured into two main sections.

- First, it provides an overview of the project's focus along with insights from our global and national mapping and cities' analysis.
- Second it presents ten co-designed recommendations which emerged from this research, aimed at shaping future preparedness strategies for cities.

III. Project Overview



NYC, Open Restaurants, Tribeca (Manhattan), November 2021

The *Adaptable Cities, Pandemic Mitigation and Crisis Preparedness* research project (ADAPT4) was built around four core objectives. These were pursued with the aim of understanding and identifying:

- the nature and mechanisms behind the adaptation, reappropriation, and transformation of urban spaces during the pandemic, from a planning and urban development perspective;
- how such adaptations enabled economic, social, and health-related mitigation;
- the legacy of these adaptations for individuals and communities, supporting (non-profit) organisations, policy, the planning system, and the broader urban development process; and
- multi-scalar, evidence-based, and co-designed lessons to promote proactive adaptability and enhance cities' preparedness for future pandemics.

The mechanisms and impacts of both reactive and proactive adaptability were examined through the legacy of:

- the adaptation of planning regulations and policy guidelines that allowed swift and prompt changes of use (including methods of community engagement and funding mechanisms);
- the adaptation of mobility-dedicated spaces—typically streets and pavements—and their shift away from car use towards other socio-cultural and health-driven purposes;
- the adaptation of outdoor/public spaces (e.g. squares, parks, vacant and abandoned land) for more diverse and inclusive community-led uses, with a specific focus on users' mental health and well-being.

The project was framed around the assumption that crisis, adaptability, and recovery can be interpreted through a set of parameters and contextual elements unique to each country and city. Communities, governments, NGOs, and planning agencies across the globe—including in G7 countries—introduced emergency and temporary policies that reshaped streets, plazas, roads, parks, green spaces, and mobility habits during the COVID-19 pandemic. These policies combined both protective-led measures and recovery-led priorities.

Protective-led measures were directly aimed at reducing virus transmission and included, in most countries (with exceptions such as Japan and some US states), lockdowns and strict social distancing restrictions. These were closely linked to **recovery priorities**, which broadly targeted economic recovery and individual recovery—understood here as mental well-being and the liveability of places.

Recovery-led measures were primarily designed to address the challenges faced by businesses unable to transition fully to online or e-commerce models, particularly due to closures and reduced seating capacities. These measures were aligned with national recovery visions and plans, and were also supported by local governments, which played a key role in implementing recovery strategies. Notably, the unprecedented nature of the pandemic meant that many policy responses were expected to fail or be short-lived—an important consideration in the context of pandemic preparedness.

Policies, strategies, and initiatives that proved more sustainable were often embedded within broader, non-pandemic agendas—raising questions about their long-term legacy. Lessons were drawn from previous good practices, which, crucially, did not exist in 2020. As a result, adaptations relied on rapid decision-making and significant uncertainty. Many cities turned to existing strategies rooted in tactical urbanism principles and adopted a multi-scalar bricolage approach. This led to creative, out-of-the-box thinking and agile interpretations of temporary urban-making.

The COVID-19 pandemic shifted perceptions and accelerated adaptations, temporarily or permanently easing tensions around the nature of 'public' urban spaces and their partial or temporary privatisation or diversification of use (from a dominant car-centric model to alternative uses) (Mandhan & Gregg, 2023; Paulhiac Scherrer, 2023). Outdoor adaptations drove the transformation of public spaces, often through temporary interventions inspired by tactical urbanism. Mobility-related adaptations were further enabled by significant emergency funding for mobility infrastructure, made available at national or federal levels (with Japan as an exception, where most emergency funding was directed to the medical sector due to strict stay-at-home compliance). This funding was distributed locally ^{via} local

authorities (e.g. the UK, France, Canada), key transport bodies (e.g. Transport for London), or community organisations (e.g. in Canada).

Across the G7, most adaptations focused on diversifying individual mobility patterns rather than collective ones, while also expanding space for collective movement and gatherings. This shift was linked to a global decline in the use of public transport (e.g. metros, buses). Urban streets—particularly curbside spaces—became central to pandemic adaptations, prompting a re-evaluation of who uses and occupies the street (Mandhan & Gregg, 2023). These transformations took three main forms:

- The extension of outdoor spaces for dining and other public uses (e.g. parklets), primarily on pavements and curbside areas;
- Pacified and shared streets, including full street closures to vehicles and the implementation of low-traffic neighbourhoods and ‘controlled streets’;
- Pop-up cycle lanes and protected on-street bike lanes.

IV. Cities' Overview

Our project focused on four cities: **London**, **New York City (NYC)**, **Paris**, and **Tokyo**. It analysed the types of adaptations that occurred during the pandemic and their lasting legacy.

London

London was characterised by a relatively limited number of street and pavement adaptations during the pandemic, with more extensive changes rolled out post-pandemic, often by scaling up pre-existing schemes. Pandemic-era adaptations primarily focused on accelerating the development of cycling infrastructure—some of which were trialled but not made permanent—, implementing Low Traffic Neighbourhoods (LTNs), reallocating car parking spaces for outdoor seating, and, post-pandemic, expanding the concept of School Streets.



London, Outdoor Dining (Camden), October 2023

London's primary emphasis was on active travel and cycling infrastructure, with less attention given to pedestrian needs. The city did not implement shared street interventions, and the pandemic did not lead to significant urban experimentations. Most schemes remained tightly controlled and monitored from planning, health, and safety perspectives. The expansion of cycling routes was largely based on pre-planned infrastructure, supplemented by pop-up lanes. Overall, London's adaptations lacked agility and made minimal use of tactical urbanism. This reflects the city's complex and fragmented governance structure, with responsibilities and funding shared among Transport for London (TfL), the Greater London Authority (GLA), borough councils, and the Department for Transport. Emergency measures enabled the

suspension of participatory processes during the pandemic, which had long-term consequences. The lack of public engagement led to community and political resistance to LTNs in some boroughs, resulting in significant spatial disparities across the capital. While some boroughs continue to actively support active travel schemes (including LTNs and School Streets), others have paused or withdrawn from them.

Overall, London's approach to pandemic adaptations lacked inclusivity, with selective funding directed towards specific transport and mobility initiatives. No funding was allocated to support tactical urbanism, and little attention was paid to community well-being or the liveability of urban spaces during the crisis. This is particularly surprising given London's prior engagement with indoor meanwhile strategies since 2009. Both the city and England more broadly pursued a rapid return to 'normal', focusing on pre-existing plans rather than fostering innovative adaptations. This has important implications for the city's preparedness for future crises and its ability to support local communities amid ongoing disruptions.



London, Low Traffic Neighbourhood (Lambeth), June 2024

New York City

New York City was at the forefront of pandemic-era urban experimentation. Unlike Paris or London—and on a larger scale—NYC benefited from distinct street and outdoor space configurations (notably wider curbs and pavements) and a dense urban fabric, particularly in Manhattan. The city exemplified how to embrace an unprecedented emergency context to develop both reactive and proactive initiatives through rapid, tactical responses. In addition to the expansion of pop-up cycling lanes, NYC was defined by two influential programmes: Open Restaurants and Open Streets.



New York, 34th Avenue (Queens), April 2024

These programmes were enabled by a systemic crisis management approach at the municipal level and were supported by strong partnerships with local communities and sponsors (e.g. Citi Bike). NYC's innovative response was rooted in the legacy of “street fight” strategies led by the former commissioner of the NYC Department of Transportation Janette Sadik-Khan under Mayor Bloomberg’s administration. These strategies, including the pedestrianisation of Times Square, fostered a culture of alternative street use that laid the groundwork for pandemic adaptations and the rise of tactical urbanism.

Despite initial hesitation from then-Mayor Bill de Blasio, who later fully endorsed the initiatives, the city rapidly implemented Open Streets and Open Restaurants. These allowed for temporary street closures and the repurposing of parking spaces for outdoor dining, including the construction of temporary roofed structures. The speed of implementation was made possible by an extraordinary, un-siloed effort from the city administration—led by the Department of Transportation (DoT)—alongside strong deregulation (including health and safety), simplified funding access for groups and organisations, and minimal enforcement (partly influenced by the concurrent Black Lives Matter movement). Both programmes were made permanent in 2021.

Unlike Paris and London, NYC's pandemic adaptations were more experimental, heavily reliant on local organisations, businesses, and communities to manage the schemes. They were not strongly tied to broader political agendas or strategies, which influenced their legacy. While the Open Restaurants programme was not abandoned, its implementation evolved. The city moved away from its experimental, creative pandemic roots, introducing stricter regulations and seasonal limitations. These changes made it more difficult and costly for local restaurants to maintain outdoor seating areas.

Open Streets continue to operate with newly introduced regulatory frameworks, although the number of active locations has declined due to time and financial pressures on community organisations. However, this evolution is not seen as a failure. Both programmes enabled the testing of alternative space uses and fostered broader community engagement, particularly among groups typically excluded from traditional participation processes. They also generated valuable data, insights, and lessons that can inform NYC's broader resilience and preparedness strategies.



New York, Park Slope (Brooklyn), January 2024

Paris

Paris's case differs from that of London and New York City. Under the (fearless) leadership of Anne Hidalgo, the pandemic was used as a catalyst and accelerator to implement a permanent—and already planned—change in the use of streets and outdoor spaces. This was done under the banner of climate change and with a view to shaping the city ahead of the 2024 Summer Olympics and beyond.

Pandemic adaptations were framed around the narrative of the “15-minute city” and involved the expansion of outdoor dining (*terrasses*), (pop-up) cycling lanes (*corona pistes*), and school streets. COVID-19 was strategically used as a political justification to instigate significant mobility changes: fewer cars, more bicycles, and more space for pedestrians. These changes were linked to concepts of hyper-proximity and multi-purpose localities, reinforced by the strict lockdowns and social distancing measures that characterised France.



Paris, School Street, Rue Du Sommerard (5th Arrondissement), May 2024

These adaptations and transformations were not really tactical but were instead mostly embedded within a topdown vision, supported by significant financial investment and minor engagement with communities. They were part of a clear narrative and branding strategy aimed at positioning Paris as a leading global city at the forefront of addressing the climate emergency. The changes were underpinned by a proactive, data-driven approach, using digital planning models to assess user behaviour and mobility patterns. Additionally, tactical transformations—such as those seen in New York City with Open Streets—were not feasible due to a complex governance system in which safety remains the responsibility of the State (Prefect of Paris). Strict safety regulations, particularly in relation to terrorism threats, made the temporary use of streets very difficult, except for pre-approved pre-pandemic schemes. However, COVID-19, social distancing, and the reopening of schools did lead to an acceleration of school street programmes (involving permanent or temporary closures), which were rapidly implemented during the pandemic and have since been extended to include child-focused street closure schemes.

While the emergency period was used to transform the city through temporary (later made permanent) mobility and outdoor space schemes, Paris moved on from the pandemic relatively quickly. Unlike other cities, this shift was not framed as part of a recovery process but rather as a continuation of efforts to transform streets and public spaces in line with the 2024 Olympics and the city’s global image. Overall, the

city's approach to pandemic adaptations was channelled through the climate agenda and distanced from community participation, experimentation, and tactical urbanism. It was fully aligned with the mayor's vision, reflecting a unique approach to pandemic remediation and preparedness in which two major crises—COVID-19 and climate change—were merged. This demonstrated an overtly political and top-down approach to crisis mitigation, supported by substantial resource allocation. However, it also raises concerns for long-term pandemic preparedness, as few lessons from the pandemic and related experiments appear to have been retained.



Paris, Cycling lanes, Rue de Rivoli (1st Arrondissement), May 2024

Tokyo

Tokyo ultimately approached the COVID-19 crisis differently. Firstly, the city—like Japan as a whole—has long been accustomed to managing risks such as earthquakes and fires. As a result, Tokyo did not implement a formal lockdown; instead, citizens adapted smoothly to social distancing measures. Secondly, Japan is characterised by strong political stability, which fosters a high level of trust and respect for the government. Japanese society is built on both individual and collective responsibility, as well as a deep respect for rules. This cultural foundation enabled a largely self-regulated response to the pandemic, with people voluntarily adhering to appropriate behaviour and social distancing. Thirdly, and related to the previous points, there is generally limited emphasis on community engagement in Japan, which shapes how urban change occurs. Participatory processes—where citizens contribute their opinions—are not widely developed. As such, a top-down approach is the norm. Even during emergencies, substantial funding is typically allocated to large-scale national and city-level initiatives, while mechanisms for flexible, area-based interventions remain underdeveloped.

Japan's administrative system is traditionally centralised, with a strong bureaucracy and relatively slow decision-making processes. Funding allocation is subject to strict accountability requirements and bureaucratic procedures, which limit responsiveness and flexibility on the ground. As a result, systems that allow local communities to independently apply for and utilise funds are only partially in place. Trust-based, flexible funding approaches therefore struggle to gain widespread acceptance. Implementing tailored, flexible responses in rapidly evolving situations is particularly challenging.



Tokyo, street closure, Maranouchi Naka-dori Street (Maranouchi District), March 2024

Due to its unique institutional and cultural context, Tokyo saw a limited number of adaptations during the pandemic, and these were highly localised. Examples include temporary street closures in commercial areas and business districts, led by public or private sector organisations without community input. Although informed by tactical urbanism principles, these initiatives were largely planned and top-down in nature. They were launched primarily for economic recovery rather than to create more liveable urban environments during the crisis. Similarly, open dining schemes were introduced in some areas to support local restaurants. These initiatives were not led by individuals but by collectives—such as shopping centre management companies—seeking funding. The absence of community-driven incentives for adaptation, combined with Tokyo's strong governmental structure, helps explain the limited number of pandemic-related urban changes.

Tokyo's crisis management reflects a distinctive approach rooted in a different perception of risk, obedience, and resilience. Interestingly, while limited innovation occurred during the pandemic, adaptability is now emerging as a key area of interest among city planners, with the goal of better preparing Tokyo for future crises. However, activating this shift depends on broader changes that go beyond enhancing community engagement. It also requires rethinking how cities are planned and shaped—particularly the role of streets. The delays in planning the conversion from vehicle-centred roads to

people-centred streets are causing a lag in the development of more pedestrian-friendly urban planning compared to other cities, as well as a delay in addressing broader global environmental issues. Improving the street improvement process could significantly enhance the resilience and preparedness of cities and communities for future crises.

Critically comparing our four cities, it is evident that Covid acted as an immediate accelerator, prompting most cities either to advance existing agendas or to initiate innovative experiments in outdoor spaces, many of which were subsequently implemented. Pre-existing and ongoing political agendas, as well as established schemes, programmes, and strategies, played a crucial role in shaping these responses.

It is clear that visionary thinking and the presence of (fearless) leadership were significant factors in pandemic adaptations. The shift towards increased cycling and walking was facilitated by a decline in public transport usage and reduced mobility due to work-from-home patterns. Despite the emergency context, the role of the private sector, sponsorship, and community involvement was notable in enabling transformations—though resistance also emerged when communities were not adequately consulted.

The distribution of emergency and legacy funding was highly influential, but even more critical was how this funding was controlled, with varying degrees of flexibility across cities. All cities exhibited significant socio-economic and spatial inequalities, including in the areas where adaptations took place, which had a marked impact on legacy outcomes and broader intersectional considerations. Other cultural factors—such as attachment to cars, attitudes towards risk, community identity, political institutions, and governance structures—also merit attention.

V. Recommendations



New York, 34th Avenue (Queens), June 2023

Drawing on lessons from emergency and unpredictable situations that required reactive and adaptable measures during the unprecedented COVID-19 pandemic, we present key recommendations for future major crisis preparedness. These are intended to support proactive adaptability through a more integrated and agile approach to temporary adaptations. While primarily tailored to pandemic events (and restrictions similar to those imposed during COVID-19), these recommendations should inform preparedness to other types of unprecedented and long-lasting crises. We do also recognise that any future pandemic may differ from COVID-19 and may impose different constraints. Expert health knowledge must therefore be translated into clear regulations and actions that local actors can implement effectively.

These recommendations are intentionally presented in a generic format, reflecting how G7 countries (USA, Canada, France, Italy, United Kingdom, Germany, and Japan) adapted outdoor spaces during the pandemic. We fully acknowledge that these will need to be tailored to specific national and local contexts, taking into account distinct planning, political, and governmental systems, as well as the importance of locally specific interventions.

1. The Importance of Experimentation

The COVID-19 pandemic presented an unprecedented opportunity for experimentation—an opportunity that must be recognised and embraced in the face of future crises. These experiments emerged through various mechanisms within the built environment. Some were initiated and implemented by small groups responding to immediate needs, often without expert guidance, while others were instigated by institutions and regulatory bodies (e.g., local authorities). Many of these responses proved to be effective, offering adaptive and creative solutions to seemingly impossible situations.

Permissible experimentation—within clearly defined boundaries—is essential for enabling creative thinkers to respond to crises. Not everyone approaches challenges with innovation; some contribute in other valuable ways. However, recognising the role of innovation in responding to unpredictable circumstances is vital if cities are to remain agile and responsive to the needs of those who live and work in them. As demonstrated during COVID-19, temporary experiments can help address both immediate challenges and longer-term impacts on mental health and wellbeing.

The pandemic accelerated both temporary and more permanent adaptations, and sparked the imagination of alternative urban futures—such as healthier, greener, and car-free cities. For built environment professionals, this was, and continues to be, a critical moment for knowledge and capacity building. Of course, these visions were shaped by the specific restrictions of the time, which may differ in future crises. Crucially, experiments must be clearly communicated as temporary, and should not be retained if they are no longer relevant or appropriate.

Moreover, experimentation should not be confined to times of crisis. Space, funding, processes, and frameworks that support diverse forms of experimentation—adaptable to different crises—must become integral to future planning. These mechanisms offer valuable guidance for navigating future emergencies.

Therefore, cities and governments must embed creative, temporary experimentation into their resilience and crisis preparedness strategies. This should include pathways to permanence for those experiments that prove effective. Such efforts must be collaborative and non-siloed, supporting local economies, encouraging community participation, and enhancing liveability and wellbeing—thereby demonstrating socio-economic, financial, and political value.

The Importance of Experimentation

- **Crisis as opportunity:** COVID-19 enabled spontaneous and planned urban experiments.
- **Permissible boundaries:** Innovation thrives when experimentation is allowed within set limits.
- **Temporary but purposeful:** Experiments should be clearly marked as temporary and assessed for relevance.
- **Pathways to permanence:** Effective responses should have mechanisms for longer-term integration.
- **Embedding experimentation:** Make space for ongoing experimentation beyond crisis contexts.

2. Experimentation as a Form of Fostering Inclusiveness

During the COVID-19 pandemic, all countries shifted to alternative forms of citizen engagement, often temporarily suspending traditional participatory processes. These changes had significant consequences, frequently resulting in tensions and public backlash in the years that followed. This highlights the importance of reactive and immediate experimentation.

The narrative surrounding experimentation must not only acknowledge the essential value of participatory processes but also emphasise the need for alternative methods of participation and feedback collection during times of crisis. Temporary creative adaptations should be more widely recognised as a form of alternative engagement and empowerment—helping to overcome resistance to change and fostering dialogue around liveability and wellbeing.

Experimentation enables engagement and empowerment by allowing for testing and iteration. Due to their localised nature, such initiatives often encourage broader participation, including from individuals and groups who may not typically engage in conventional participatory processes.

Temporary uses, as a form of experimentation, are powerful tools for engagement. Unlike traditional consultations, which often last only a few days, temporary interventions can span several months or more, offering the opportunity to build meaningful relationships with local communities over time. These relationships can yield valuable insights that inform, develop, and potentially evolve into longer-term strategies.

Moreover, experimental approaches often attract participation from more marginalised groups, supporting inclusivity where traditional methods may fall short. In this way, experimentation is not merely a means of fostering inclusiveness—it is inherently rooted in it. Inclusivity is both a foundation and a product of successful experimentation.

In this context, temporary adaptations should be seen as part of a broader, long-term strategy for change. They need not to always be framed solely as precursors to permanent solutions, nor confined to emergency contexts. Instead, they can serve as ongoing mechanisms for meeting community needs and shaping more inclusive urban futures.

Experimentation as a Form of Fostering Inclusiveness

- **Alternative engagement:** Temporary interventions offer new ways to involve citizens during crises.
- **Localised experimentation:** Encourages participation from groups often excluded from traditional processes.
- **Community dialogue:** Builds trust and promotes well-being through active, ongoing engagement.
- **Beyond permanence:** Experiments don't always have to lead to permanent changes—they can support ongoing adaptability.

3. Flexible Resourcing for Area-Based Interventions and Bottom-Up Engagement Processes

Emergency situations demand creative and flexible approaches to resourcing. While the allocation of funding for area-based adaptations is essential, it must be accompanied by a level of accountability that fosters trust and encourages contributions from all stakeholders. At the same time, accountability requirements should be relaxed—particularly for small-scale, trust-based funding allocations that support place-shaping initiatives grounded in collaboration between institutions, communities, and individuals.

Although significant national and city-level funding is often directed towards large-scale schemes, smaller-scale funding for local interventions is equally vital. This includes establishing funding mechanisms that allow communities or small organisations to apply for and deliver local adaptations. In such contexts, funding and resources are everything. It is often overlooked that charities, small businesses, and social enterprises also have salaries to pay. While capital investment is typically prioritised, the value of people's time—especially in short-term, high-intensity projects—is frequently underestimated. Crisis response efforts often require a significant time commitment from skilled individuals, who can be difficult to recruit without appropriate compensation.

It is also worth noting that third-sector, area-based organisations often deliver better value for money than public sector bodies. Therefore, providing adequate funding opportunities for local interventions is likely to result in more projects being delivered, more viable activities that meet community needs, and greater overall value.

Funding opportunities empower communities and organisations (e.g., BIDs or third-sector groups) to determine their priorities, organise effectively, and implement schemes. This flexibility enables faster, more responsive action. In times of crisis, funding processes and approvals for area-based interventions must be fast-tracked and significantly simplified. Immediate funding is crucial—accountability can follow—so that authorities, communities, and small organisations can accelerate their adaptability efforts. This means reducing application and approval processes to the bare essentials.

Returning to the importance of trust, devolving power to neighbourhoods enhances responsibility and ownership. However, this must be managed carefully. Bodies that cede power and resources must also take responsibility for monitoring outcomes and determining whether power should be reclaimed—temporarily or permanently. Any investment and transfer of responsibility should be subject to later evaluation, particularly in terms of benefits and value for money.

Flexible Resourcing for Area-Based Interventions and Bottom-Up Engagement

- **Small-scale funding:** Critical for fast, localised, community-led responses.
- **Trust-based allocations:** Speed and responsiveness require relaxed accountability for small interventions.
- **Recognising value:** People's time and small organisations' efforts must be properly resourced.
- **Devolved responsibility:** Local actors should be empowered—with monitoring and feedback loops in place.

4. Soft Regulations, Deregulation, and Crisis-Specific Regulations

Effective pandemic responses often depend on the relaxation of regulatory controls and processes to foster experimentation and adaptability. The hybrid adaptation of public spaces and buildings for temporary functions during crises has proven to be a valuable tool—alleviating pressure caused by restricted outdoor space usage and enabling the activation of underused or unused areas for social experimentation.

Relaxing regulatory controls should translate into more decentralised urban governance and decision-making, supported by softer, time-limited regulations embedded within temporary frameworks. It is essential for local authorities to either maintain or develop a portfolio of such time-bound regulations—with clearly defined terms and revocation mechanisms. This enables swift responses to crisis-specific community needs without being hindered by standard decision-making timelines, levies, or prohibitive administrative costs.

Crisis-specific regulations often involve reactivating pre-existing (but dormant) planning permissions or making minor amendments to them. For example, in England, the *Town and Country Planning (General Permitted Development) Order 2015* was amended through the *Coronavirus Regulations 2020* to allow temporary land use for up to 56 days (later extended). This facilitated outdoor markets, pop-up medical facilities, and drive-through testing centres. Local authorities were also permitted to operate markets without planning permission, supporting local food supply chains and economic resilience.

Similarly, emergency permitted development rights were granted to local planning authorities (LPAs) and health bodies, enabling the rapid construction or repurposing of buildings without the need for full planning applications. In New York City, temporary concessions were extended from 29 to 119 days during the pandemic, allowing for greater flexibility in the use of public spaces—including their temporary privatisation.

However, authorities should not have to reinvent the wheel with each new crisis. Maintaining a library or portfolio of adaptable regulatory solutions is a practical step forward. Moreover, it is worth critically examining why certain relaxed rules—if proven effective during a crisis—should not remain in place permanently. This reflection can inform more resilient, responsive, and inclusive regulatory frameworks for the future.

Soft Regulations, Deregulation, and Crisis-Specific Regulations

- **Temporary flexibility:** Loosening regulations enables quick repurposing of space during crises.
- **Pre-built tools:** A library of adaptable regulatory measures avoids reinvention each time.
- **Reflection post-crisis:** Evaluate which emergency measures could become permanent improvements.
- **Clear frameworks:** Temporary rules should include sunset clauses and revocation mechanisms.

5. Flexible, Hybrid, and Un-siloed Adaptive Governance

Adaptive governance is essential during times of crisis, but it cannot be assumed—particularly in the face of entrenched institutional cultures, norms, and legacies. In situation of emergencies, centralised decision-making can often be too slow to respond effectively. Granting greater authority to local governments, enabling them to act flexibly in response to the specific needs of their communities, can therefore be highly effective.

However, the role of central government remains critical. By providing consistent guidelines and strategic direction, it ensures fairness, coherence, and national balance. If local authorities act entirely independently, disparities between regions may emerge, potentially leading to unintended and even harmful consequences. Thus, local flexibility and central oversight must be seen as complementary. Effective crisis response depends on coordination between the two, with shared responsibilities, shared risks, and mechanisms for maintaining accountability.

At the city level, governance should be made more flexible and simplified through a hybrid and porous distribution of power between regulatory bodies and non-regulatory actors (e.g., private organisations, community groups, and civil society). This approach supports democratic responsiveness and enables an interdisciplinary, cross-departmental, multi-agency, place-based response to crises.

The COVID-19 pandemic demonstrated that reducing bureaucracy and breaking down silos can lead to faster, more effective responses—an insight that holds true beyond crisis contexts. Scale is also important: integrating both the micro (neighbourhood, everyday life) and macro (city-wide) levels of governance is essential for delivering meaningful change.

Un-siloed strategic thinking is thus key to enabling rapid, reactive, and transformative adaptations. However, this must be underpinned by a robust feedback loop—one that allows all levels of governance, including city agencies, private organisations, and communities, to contribute meaningfully. Such inclusive and iterative governance structures are vital for building resilience and ensuring that adaptive responses are both effective and equitable.

Flexible, Hybrid, and Un-siloed Adaptive Governance

- **Decentralised responsiveness:** Local authorities should have the power to act swiftly.
- **Central coordination:** National guidance ensures equity and coherence across regions.
- **Hybrid governance:** Involve non-regulatory actors and support interdisciplinary, cross-scale responses.
- **Breaking silos:** A porous, flexible governance structure enables faster, more holistic action.

6. Trust-Based Participatory Decision-Making

Crises highlight both the necessity and potential of trust among people and institutions. Building broad-based trust in new, temporary planning tools and actions is essential to their effectiveness. Successful adaptations depend on trust—trust in existing partners, and trust in new collaborators with whom relationships may not yet have been established. Trust is also vital in recognising area-based, city-specific, and cultural differences, and in ensuring that local communities feel supported by governing bodies throughout a crisis.

Trust in planning processes and tools is fundamental, particularly in relation to inclusiveness, empowerment, and experimentation. Ensuring proper representation of all communities within governance structures helps build trust and facilitates more effective crisis management by enabling clearer, more direct communication channels. This is especially important given that public trust in the state has, in many contexts, been significantly eroded and is vulnerable to manipulation.

Trust is grounded in both competence and ethical values. It is shaped by skills, training, and organisational capacity. Despite the often unequal power dynamics in the built environment, trust remains a critical component of any partnership. It reflects mutual recognition of each party's strengths and limitations. Trust-based participatory decision-making can lead to more ambitious, socially driven, and context-specific experimental projects than hierarchical approaches typically allow.

Temporary projects led by third-sector organisations operating at the city level can play a key role in this process. These groups often act as connectors between government bodies and other stakeholders. In this context, scale and place matter—trust must be embedded in programmes through local, tangible actions.

However, the qualitative concept of trust must also be supported by quantitative evidence. Measurable outcomes—such as project milestones, employment rates, educational attainment, health improvements, and reductions in crime—can provide tangible proof of the effectiveness of trust-based approaches. Using quantitative data in this way enhances transparency and helps build confidence among stakeholders. In short, a balanced combination of qualitative insight and quantitative evaluation can lead to more effective, inclusive, and resilient decision-making.

Trust-Based Participatory Decision-Making

- **Trust is foundational:** Collaboration in crises hinges on mutual confidence and respect.
- **Inclusive representation:** Governance must reflect community diversity to build legitimacy.
- **Quantitative and qualitative:** Combine hard data and lived experience for strong decision-making.
- **Local intermediaries:** Third-sector groups can bridge gaps between governments and communities.

7. Adaptability and Knowledge-Sharing

Successful adaptability and creative experimentation are grounded in lessons learned from previous adaptations. Knowledge is central to this process. Maintaining detailed records of the foundations and evolution of projects—including seasonality, and before-and-after impacts—is essential for learning and effective knowledge-sharing. However, retaining and transferring this knowledge remains a challenge at all levels.

Greater diligence, support, and funding must be dedicated to documenting and archiving the processes, tools, and methods used to deliver creative adaptations during unprecedented times. This includes capturing information on regulations, partnerships, collaborations, and project outcomes. Equally important is ensuring that this knowledge is made accessible through both formal and informal open-access platforms and networks. Doing so maximises opportunities for knowledge translation, peer learning, and the development of multi-scalar communities of practice.

A flexible, learning-oriented approach to governance and planning is a critical strategy for the recovery, growth, and long-term adaptability of cities and regions. By accumulating and sharing knowledge within and across organisations and communities, cities can respond more swiftly and effectively to emerging challenges. As knowledge-sharing deepens, collaboration between experts and local communities can flourish, enabling more holistic and context-sensitive responses.

To ensure this approach is effective, knowledge-sharing must be both critical and cautious—mindful of issues related to the quality and accessibility of information, as well as the potential politicisation of knowledge. Transparent, inclusive, and well-curated knowledge ecosystems are essential for building trust and resilience in the face of future crises.

Adaptability and Knowledge-Sharing

- **Learn from the past:** Document adaptations, partnerships, and outcomes for future use.
- **Accessible archives:** Knowledge should be available through open platforms and networks.
- **Peer learning:** Encourage communities of practice for faster, more context-aware responses.
- **Mindful sharing:** Ensure quality and inclusivity in knowledge ecosystems to avoid politicisation.

8. The Role of Community Hubs

Cities and neighbourhoods are shaped around places where individuals and groups come together; these are often generically referred to as *community hubs*. Schools, community centres, religious institutions, and libraries frequently serve this role. To enable effective crisis responses and foster long-term resilience,

it is vital to identify—and, where necessary, activate—these hubs as focal points for collective urban adaptation.

Community hubs function as essential social infrastructure, generating cohesion and trust within communities. Mapping the services and connections these hubs can offer, both in advance and during times of crisis, can help identify demographic gaps and areas of greatest need. In a context of limited resources, being intentional and strategic in project delivery is key to achieving maximum impact.

Beyond formal hubs, it is also important to recognise the value of more informal or micro-scale spaces, such as rooftops, open staircases, or vacant apartments and offices. These can serve as *micro-hubs*, in other words, spaces of adaptation, refuge, and safety during crises. They also hold potential for repurposing and should be considered as part of alternative planning strategies.

The Role of Community Hubs

- **Focal points of support:** Leverage schools, libraries, and informal spaces for resilience efforts.
- **Social infrastructure:** Hubs foster trust, cohesion, and local response capability.
- **Mapping potential:** Identify and activate both formal and informal spaces for adaptive use.
- **Strategic delivery:** Prioritise based on demographic need and community connection.

9. Better Use of Technology-Enabled Solutions to Support Adaptations

Urban adaptations during crises should be embedded within city-level strategies and aligned with a clear narrative and vision to secure public support and ensure timely delivery. Health-related crises, such as pandemics, bring specific requirements around prevention and wellbeing. A holistic approach to urban health must be technologically informed, with digital tools supporting experimentation, enhancing efficiency, and improving liveability. Crucially, these technologies must be accessible to all citizens.

The lack of human contact during the COVID-19 pandemic had profound psychological impacts. While technology-enabled solutions can support preparedness and immediate responses, new modelling and AI tools should also consider ways to mitigate the effects of isolation and disconnection. For example, AI and digital planning tools can help identify suitable locations for temporary urban interventions. These insights should be integrated into city resilience strategies and made accessible to local communities.

Future pandemics may present different challenges—such as the need to manage shared indoor spaces or reconfigure water and waste systems. Technology must be mobilised to address a range of health scenarios, drawing on expert insights to plan for alternative urban futures. Developing and collecting relevant data to support such scenario planning must be a priority for cities' preparedness strategies.

Better Use of Technology-Enabled Solutions to Support Adaptations

- **Digital tools for planning:** Use tech and AI to model interventions and identify opportunities.
- **Accessible technology:** Ensure inclusivity in access and usability.
- **Mental health focus:** Consider digital solutions that also mitigate social isolation.
- **Scenario planning:** Develop health and infrastructure-focused crisis preparedness tools using data.

10. Preparedness as an Ongoing Inspiration for Building More Resilient Cities

Cities will continue to face a wide range of challenges and crises. Preparedness must therefore be a continuous priority; it should be an inspiration for building more resilient urban systems through innovative, adaptable responses that can be scaled up or down as needed. This requires preparedness to be embedded in policy and regulation *before* crises occur, including the development of soft regulations and flexible governance frameworks.

Programme management is critical. Cities need robust infrastructures, governance systems, tools, and trained personnel to enable prompt and coordinated responses. Inter-agency protocols, informed by lessons from COVID-19, should be established and maintained.

Preparedness also involves ongoing reflection and dialogue about past crises, rather than simply moving on. Urban systems must be continuously adapted in response to evolving risks. Flexibility within bureaucratic processes is essential to turn adversity into opportunity. Long-term interventions take time, which is not always available in emergencies. Preparedness strategies must therefore include mechanisms to fast-track or shortcut processes when necessary benefiting both authorities and the communities they serve, particularly vulnerable groups.

Finally, preparedness means recognising that *meanwhile* and *temporary* uses are as integral to the urban fabric as permanent ones. These uses bring activity, interest, and diversity to cities keeping them vibrant and resilient in all circumstances.

Preparedness as an Ongoing Inspiration for Building More Resilient Cities

- **Continuous process:** Preparedness must be embedded in everyday planning, not just emergency response.
- **Institutional readiness:** Develop tools, personnel, and protocols for coordinated action.
- **Learning mindset:** Reflect on past events to adapt policies and systems over time.
- **Meanwhile uses:** Recognise temporary projects as integral—not secondary—to urban resilience.

VI. Conclusion

The ADAPT4 report emphasizes that urban resilience as well as everyday urban making must be proactive, inclusive, and experimental, not just reactive. Lessons from COVID-19 must guide ongoing efforts to make cities flexible and responsive to future crises—pandemic or otherwise. We are calling for further collective efforts to continue recording how adaptability can manifest and is manifesting in cities and critically reflecting on how knowledge sharing can be spread further. Overall, it is apparent that trust and a more devolved and place-based distribution of power in urban making is at the core of driving experimentation and innovative responses in periods of unprecedented challenges.

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