CHAPTER 7

The Era of the New Normal

Abstract Leading smart cities are transforming their urban planning processes by building inclusion and access into their city-wide master plans. This is resulting in cities that are more accessible, inclusive, and resilient. A key factor in this journey is the adoption of key principles of resilience in their decision-making and planning processes: reflection, resourcefulness, inclusivity, integration, robustness, redundancy, and flexibility. Inclusivity is crucial in building resilience as cities need to prioritize broad consultation and create a sense of shared ownership in decision-making to ensure the needs and perspectives of all members of the community are taken into account. This is complemented by the use of human-rights based regulatory frameworks, agile regulatory structures, collaboration with civil society organizations, and continuous learning, training, and upskilling. Cities should reflect on past experiences to inform future decisions. Universal Design principles can also enhance the effectiveness of radical inclusion efforts. The practice of Universal Design has expanded greatly to include policy, social participation, and health and wellness. The ultimate success of these initiatives is also largely dependent on the ability of cities to effectively adopt and integrate technologies in a way that supports the needs of all citizens.

Keywords Resilience • Inclusivity • Integration • Flexibility • Smart cities • Emerging technologies • Agile regulatory structures • Universal Design

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> *I think it is undeniable that digital transformation is creating right now, winners and losers. We must be capable of reverting this tendency in order to make the digital transition in the service of human rights. We must seek to reduce social inequalities and bet on the creation of a model of the digital city that is accessible and will leave no one behind. In other words, we cannot allow that the process of digitization merely finishes consolidating a new face of inequality. And that is in our hands.* (Laia Bonet, Deputy Mayor of Barcelona)

One way that cities can be accessible, inclusive, and resilient in the "new normal" is by adopting the key principles of resilience in their decision-making and planning processes. By reflecting on past experiences, cities can learn from their successes and challenges in order to inform future decisions. This can help them to be resourceful and recognize alternative ways to utilize their resources. These principles existed before the pandemic but emerged as a source of greater urban resilience.

Inclusivity is essential in building resilience, as cities should prioritize broad consultation and create a sense of shared ownership in decision-making. This ensures that the needs and perspectives of all members of the community are taken into account and can help to build trust and collaboration. Furthermore, cities should strive for integration by bringing together a range of distinct systems and institutions. This can help ensure that different parts of the city are working together toward a common goal and can enhance the overall resilience of the city.

In addition to these principles, cities should also focus on building robust and redundant systems and maintaining flexibility in order to adapt to changing circumstances. By adopting these strategies, cities can become more accessible, inclusive, and resilient in the "new normal."[1]

The following seven principles can help guide us toward a more radically inclusive and by extension, a more resilient urban future. The seven principles are further elaborated in the sections below.[2]

1. **Reflection**—using past experiences to inform future decisions
2. **Resourcefulness**—recognizing alternative ways to utilize resources

[1] For more content in this area, see Cheshmehzangi, A. (2020). *The City in Need*. Springer Singapore. New scholarship being led by my colleague Dr. Serida Catalano will explore the new normal through the lens of neurodiversity in environmental design, watch for this important research and upcoming publications.

[2] Pineda, V., (2020). Resilience and Recovery Strategies for People with Disabilities in Response to a Pandemic, *LinkedIn post*. https://www.linkedin.com/pulse/resilience-recovery-strategies-people-disabilities-response-pineda/

3. **Inclusivity**—prioritizing broad consultation to create a sense of shared ownership in decision-making
4. **Integration**—bringing together a range of distinct systems and institutions
5. **Robustness**—well-conceived, constructed, and managed systems
6. **Redundancy**—spare capacity purposefully created to accommodate disruption
7. **Flexibility**—willingness and ability to adopt alternative strategies in response to changing circumstances

In order to increase reflection, cities and city leaders can use a variety of tools and techniques to analyze their past experiences and learn from them. For example, they could conduct regular evaluations and assessments of their programs and initiatives and use this information to inform future decision-making. Cities could also establish mechanisms for feedback and input from citizens and stakeholders, such as surveys, focus groups, and community meetings.

To increase resourcefulness, cities can adopt a creative and innovative approach to using their resources. This could involve identifying new sources of funding and support, such as partnerships with businesses and organizations, or exploring alternative financing mechanisms such as crowdfunding or social impact bonds. Cities could also look for opportunities to share resources and services with other municipalities, in order to reduce costs and increase efficiency.

Inclusivity can be enhanced by prioritizing broad consultation and involving a diverse range of stakeholders in decision-making. Cities could establish advisory committees or task forces that bring together representatives from different sectors and communities and provide a platform for them to share their perspectives and ideas. Cities could also use digital tools and platforms, such as online forums and social media, to engage with a wider range of citizens and stakeholders. This naturally extends to improving governance as well as a sense of belonging for those who have participated in the consultation process.

To increase integration, cities can work to foster collaboration and coordination among different systems and institutions. This could involve establishing interagency agreements and partnerships and creating mechanisms for sharing information and resources. Cities could also develop and implement city-wide plans and strategies that take into account the needs and priorities of all sectors and stakeholders.

To increase robustness, cities can focus on designing and implementing well-conceived, constructed, and managed systems. This could involve investing in infrastructure and services that are resilient to natural disasters and other disruptions and adopting best practices in project management and risk assessment. Cities could also establish clear policies and procedures for maintaining and upgrading their systems over time.

To increase redundancy, cities can create spare capacity in their systems and infrastructure in order to accommodate disruption. This could involve designing buildings and infrastructure with multiple redundant systems or establishing backup power sources and other contingency plans. Cities could also invest in technologies and systems that are scalable and flexible, in order to adapt to changing circumstances and demands. This provides better long-term access, no matter what situations arise as systems become more resilient.

Finally, to increase flexibility, cities can foster a culture of adaptability and innovation and be willing to try new approaches and strategies in response to changing circumstances. Cities could establish mechanisms for experimentation on inclusive innovation, such as incubators, accelerators, and innovation labs that all value and advance social inclusion and social resilience. Such approaches are radical in the sense that they provide support and resources for entrepreneurs and innovators dedicated to building new social systems, new structures to bring people into a productive and more equitable social standing viz a viz their more established or privileged peers. Cities could also create policies and processes that enable them to quickly adapt to new challenges and opportunities as they relate to social exclusion, discrimination, and other human rights violations.

Enhancing radical inclusion enhances urban resilience. Both of these also present wider opportunities for cities to better utilize their resources and capabilities beyond the scope of the pandemic.

Emerging Trends Accelerating the Speed of Urban Transformation

The effects of the COVID-19 pandemic created many sudden changes to the ways we carried out our lives. Some of the most important of these included: rapid adoption of remote working; greater data privacy considerations posed by COVID-19 tracking apps; using hotels to house people experiencing homeless; increased strain on digital infrastructure;

acceleration in the adoption of automation; transition to virtual service delivery; the shift to participatory, virtual cultural experiences; the flourishing of open innovation; isolation intensifying mental health challenges; and new financing needs and models.

Each of these shifts provided clear risks as well as opportunities for cities and societies. These changes can also have exaggerated impacts on at-risk people including people with disabilities and older people as they are often the last people considered when sudden trends emerge and society has little time to enact proper planning.

However, these new trends also provide the opportunity to use these changes as a way to alter the course of the greater transformations underway. For example, by making these changes to work practices, data privacy measures, accommodation, and service delivery properly consider those most at risk so that the longer-term adaptations that society is forced to make to deal with major events like the COVID-19 pandemic ultimately result in greater equity and accessibility for all.

Smart Cities Are Accessible Cities

> *When Hurricane Sandy hit New York City in 2012, it hit hard. The city wasn't as prepared as it is today. There were issues with shelters, issues with getting communications out, and issues around paying attention to persons with disabilities to the level that was needed. That has now changed.* (Victor Calise, Commissioner of NYC Mayor's Office of Persons with Disabilities)

The types of programs and infrastructure investments best suited for deployment in each city vary depending on the local circumstances of that city. This includes a range of factors such as location, population size, demographics, etc. But there is much that can be learned from the approaches and projects that have already been successfully deployed in smart cities around the world.

New York, United States

New York City was considered the epicenter of the COVID-19 pandemic in the United States. Its high initial case numbers and fatalities meant it was required to take the lead in the pandemic response and many of the lessons learned were applied to other cities in the United States and around the world as cases continue to spread.

When comparing New York City's level of preparedness for the COVID-19 pandemic with that at the time of Hurricane Sandy in 2012, the city was far better equipped to assist persons with disabilities. Some of the measures it put in place in response to the pandemic included:

1. **Accessible platforms and communications**—every video that the City of New York puts out has captioning and sign language is available at all mayoral press conferences.
2. **Weekly stakeholders meetings**—to get back to people with direct responses to questions.
3. **Accessible transportation**—access to a para transport shared ride system, an e-health system to order taxis on demand, and accessible buses where persons with disabilities and older persons have a dedicated access point at the front of buses.
4. **Permitting**—extended permits to allow persons with disabilities to park all over the city and extended timeframe allowances.
5. **Essential workers**—health care workers and personal care assistants were formally declared as essential workers.
6. **Education**—the city has over 250,000 individual education plans for children with special learning needs. This was extended to include e-learning platforms so that children have access to accessible laptops and the internet.
7. **Food distribution**—platforms to access food for those in need as well as food distribution via taxis to those with limited mobility.
8. **Senior hours**—dedicated hours when grocery stores were open exclusively for older persons.

The New York City Mayor's Office of Persons with Disabilities (NYC MOPD) has created an accessible virtual meeting guide to educate public and private partners to be equitable when hosting public meetings. The NYC transportation network includes a variety of accessible services including access to a para transport shared ride system, an e-health system to order taxis on demand, and accessible buses where persons with disabilities and older persons have a dedicated access point at the front of buses. The city's Office of Emergency Management Unit also has a Disability Access Functional Needs (DAFN) section to work directly with NYC MOPD and their community stakeholders to ensure the City's emergency response plans include persons with disabilities.

Barcelona, Spain

Nearly 40 years ago, Barcelona established the National Municipal Institute of People with Disabilities (IMPD). The institute is a dedicated organization leading the improvement of mobility and accessibility in Barcelona. It has helped transform an industrial, working class city into a modern, accessible city for all.

The first major accessibility policy developed for the city was the installation of ramps on all the sidewalks and zebra crossings. Today, nearly 100 percent of all the zebra crossings in the city are accessible. The next major development was a dedication to accessible public transport to ensure persons with disabilities in the city could use the buses, trolley cars, and subway. This was a very significant investment as it meant replacing the entire fleet of buses used in the city. It was then followed by the installation of elevators within the subway system to allow for direct access from the street level to the station lobbies, and from the lobbies to the platform. This is still a surprisingly lacking feature of most major cities around the world. But today, around 80 percent of the metro stations in Barcelona are fully accessible. The remaining stations are the oldest stations that have more complex infrastructure because of their antiquity.

The city now also has a dedicated team of 40 people with reduced mobility that continuously travel the city. Each team is tasked with the ongoing evaluation of the accessibility of the city. All areas are checked and tested by these teams to develop a priority list of public spaces or locations that require the most urgent work to address accessibility issues.

Singapore

Singapore has long had a strong reputation for creating well planned city infrastructure and services. It has a coordinated transport system that includes trains, buses, taxis, bicycles, and Grabs (private service cars). Its workforce development services provide opportunities to develop the skills of workers of all ages, genders, and abilities to improve their career prospects. These services include strategic services for businesses whether employers are expanding or reducing their workforces. Singapore has also focused on building a strong foundation for digital inclusion through initiatives such as the National Digital Literacy Programme, which provides training and support to help citizens develop the skills and knowledge they need to fully participate in the digital economy.

Singapore's response to the COVID-19 pandemic was also lauded as one of the most effective globally, which is partly due to its prior

dedication to Universal Design and the deployment of accessible and equitable city services. When the pandemic hit, it initiated a comprehensive plan to ensure that essential community services remained available, especially for the people who most needed them. This included ensuring all public and private acute hospitals and community hospitals remained open for the delivery of essential services/procedures. Residential and home-based community care services such as nursing homes, psychiatric rehabilitation homes, psychiatric sheltered homes, inpatient palliative care, home medical, home nursing, home palliative care, interim caregiver service, homes for the disabled, and meals delivery services continued to function. Educational services across both mainstream and special schools provided by the Ministry of Education (MOE) also ensured Full Home-Based Learning (HBL) programs were in place during periods of full or partial lockdowns.

Dubai, UAE

Dubai has placed great emphasis on creating a dynamic, vibrant, and inclusive smart city through the use of emerging technologies such as artificial intelligence, blockchain, and autonomous vehicles. The aims of Dubai's smart city initiative are to improve the quality of life for all citizens, including those with disabilities. To this end, Dubai has developed the Dubai Disability Strategy, which aims to create an inclusive and accessible environment for all. The strategy includes a range of initiatives, such as the development of accessible infrastructure and the use of assistive technologies, to enable people with disabilities to fully participate in all aspects of life in the city.

One example of how emerging technologies can support the goals of the Dubai Disability Strategy is the use of AI and blockchain to improve the efficiency and accessibility of government services. For example, the use of blockchain technology to facilitate the secure and permanent record keeping of visa applications, bill payments, license renewals, health records, and property transactions can help to streamline the delivery of these services and make them more accessible to all citizens.

Amsterdam, Netherlands

Digital transformation programs in the city of Amsterdam have placed it as the world's leading smart city in many respects. Its dedicated approach to inclusive urban transformation has in many ways set it aside from all other smart cities. In collaboration with the global nonprofit innovation

firm, World Enabled, the city set out to develop new capabilities based on artificial intelligence, machine learning, and machine vision as part of its Amsterdam for All[3] project. These new tools will allow Amsterdam to audit the entire city through images, with computer algorithms that "see," "tag," "quantify," and "qualify" access barriers, curb cuts, and other assets. This technology will accelerate a more integrated approach to asset management and drive investments in infrastructure upgrading with a more nuanced approach. Layers of census data can be cross-referenced with identified access barriers and infrastructure improvements can consider access needs from the very beginning.

In addition to improving the accessibility of its urban infrastructure, Amsterdam is also using AI to improve the readability of its websites and make them more accessible to users with disabilities. This includes the use of machine vision to identify and tag elements on the website that may be difficult for users with visual impairments to access, such as small fonts or low contrast text.

Quito, Ecuador

One of the key aims of Quito's smart city initiatives is to increase the city's resilience in the face of natural disasters, such as earthquakes, floods, fires, and mudslides. To achieve this goal, Quito has introduced the "Quito Listo" program, which uses data and technology to help build a culture of prevention and awareness of risks in the city. The program uses digital maps and alerts to provide detailed information about the likelihood of significant structural damage and the areas of the city that are most at risk, such as those with large numbers of children or elderly people. This information can be used to target resources during emergencies and ensure that the most vulnerable members of the community are protected.

In addition to increasing resilience, Quito is also working to increase accessibility and innovation in the city through initiatives such as the development of green corridors and the National Inclusive Mobility Strategy. The green corridors are dedicated bike lanes and pedestrian pathways that are designed to improve mobility and reduce air pollution in the city, while the National Inclusive Mobility Strategy aims to increase accessibility and inclusivity in the city's transportation system.

[3] Amsterdam Intelligence, (2022). *Amsterdam for All Accessed 1 December 2022.* (https://amsterdamintelligence.com/projects/amsterdam-for-all). More recent publications by World Enabled and the City of Amsterdam such as the AI Playbook on Inclusive and Accessible Cities also elaborate on these emerging trends.

NEOM, Saudi Arabia

NEOM seeks to excel and radically expand the existing norms and notions of city building. This ambitious and visionary city is being built in the Tabuk Province in northwestern Saudi Arabia. It's billed as the world's first major development that will exceed all existing standards in environment protection, climate adaptation, net zero construction, digital transformation, and notably also accessibility. It proposes the large-scale development of futuristic urban environments including The Line, a 170 km long and 500 m tall continuous structure that will eventually accommodate 9 million people but built on a footprint of just 34 km^2 (Figs. 7.1 and 7.2).

The linear city faces considerable constraints. If and when completed, it will likely look substantially different than the original design. The project is set to be built on a physical and digital infrastructure layer while all essential utilities and transportation services will be integrated below the surface. This will mean a reduced infrastructure footprint, access to all necessary facilities within five minutes, and a high speed rail transport system with an end-to-end transit time of only 20 minutes. How this all comes together will is yet to be determined, the project is in a state of continual controversy and practical re-visioning and re-engineering.

Fig. 7.1 Mockup of the Line plan. This image shows a mirrored building that is long and tall but very narrow. The mirrored surface reflects the desert and water from the ocean. (Image credit: NEOM, (2022) *NEOM. Accessed November 30, 2022.* (https://www.neom.com/en-us/regions/theline))

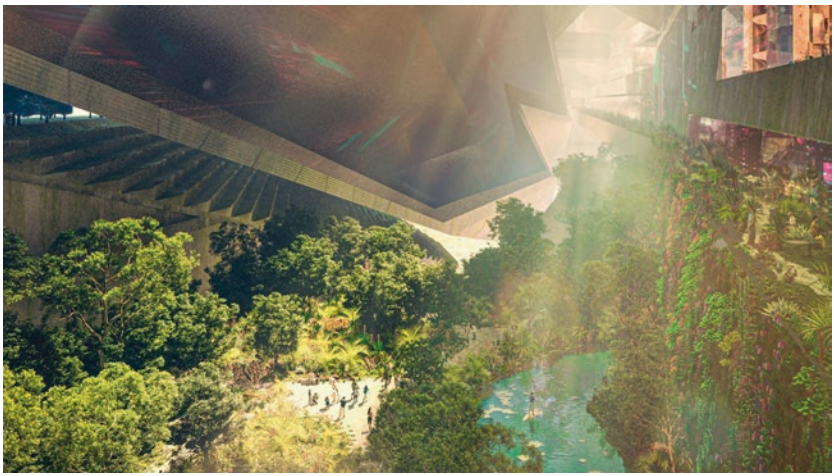

Fig. 7.2 Design concepts for The Line project (NEOM, (2022) *NEOM. Accessed November 30, 2022.* (https://www.neom.com/en-us/regions/theline)). Digital mockup of the Line Project, this image shows abundant greenery with walking and swimming areas within an urban construction

The project has been plagued by challenges, but yet in all conversations with leaders, there is a clear interest to operationalize and exceed standards on accessibility and inclusion. The questions that remain are how will accessibility and inclusion be managed, planned for, budgeted, implemented and ultimately reviewed? What procedures and quality controls have been put in place? How can this city of the future deliver on access and sustainability of residents today? How will competing interests be reconciled and delivered? Can all systems be brought on board at the same time? It's going to take new approaches, new thinking, and a new operating system to deliver accessibility and sustainability simultaneously. Essentially project partners seek to provide a new blueprint for the future. The most telling elements of NEOM will be in the lessons learned, the potential to establish new approaches, and innovations that center inclusion and accessibility in city building on a mass scale.

What Can We Learn From These Cities?

The efforts of cities globally to create dynamic, vibrant, and inclusive smart cities, including the cities outlined above, are vital in furthering the creation of accessible designs, environments, and cultures. What makes

these types of initiatives even more important is that they help to foster a culture of "a race to the top." Each approach benefits the inhabitants of those urban environments but also acts as an example to other cities around the world of what is possible and what should become the new norms for leading international cities.

These types of initiatives have the potential to transform urban planning and create more sustainable and resilient communities. The success of these initiatives will depend on the ability of cities to effectively adopt and integrate these technologies in a way that supports the needs of all citizens and promotes inclusivity and accessibility. But by building inclusion and access into their city-wide master plans, countries are taking the necessary steps to becoming Smart Nations. These are nations that embrace the capabilities and possibilities of new technologies and new approaches, as well as the capabilities and potential of all of their citizens.

Emerging Trends Linking Radical Inclusion to Resilience in Practice

There are several measures that can be put into practice to implement radical inclusion so as to boost the urban resilience of our cities. The following are some particularly compelling examples that can be used as a starting point:

- Human-rights based regulatory frameworks: Clear human-rights based regulatory frameworks can ensure that technologies do not reinforce exclusion, discrimination, or power asymmetries.
- Agile regulatory structures: Governments can issue agile regulatory structures that specify standards and guidelines for the accessibility and usability of digital products and services, such as apps, websites, and kiosks, to ensure that all citizens have equal access to these resources.
- Protection of citizens: Governments, both local and national, should protect citizens, including those with disabilities and vulnerable people, when collecting and using data for technology development.
- Collaboration with civil society organizations: Emerging technologies can maximize benefits and minimize harm by collaborating with civil society organizations, academia, policymakers, and disability rights organizations (DPOs).

- Monitoring and assessment: Local governments can monitor and assess the impact of emerging technologies on citizens, particularly those with disabilities and those at risk of exclusion, to ensure that these technologies are not reinforcing exclusion, discrimination, or power asymmetries.
- Risk management plans: Local governments can create risk management plans to increase their cyber inclusion and resilience by guaranteeing the delivery of essential city services.
- Continuous learning, training, and upskilling: All urban stakeholders, especially those driving policy or investment decisions, should allocate budgets for training, learning, and development programs. Upskilling allows new approaches to be systematized, calibrated, and implemented by a capable and engaged workforce.

In addition to the above, cities that are committed to radical inclusion can utilize Universal Design principles to enhance the effectiveness of their efforts.[4] The practice of Universal Design has expanded greatly from its origins in architecture to include policy, social participation, and health and wellness. The emerging measures presented in this book build off of Universal Design to help urban practitioners build belonging by design. How can we define the outcomes of radical inclusion in ways that can be measured and applied to all design domains? How can we do so while taking into account existing resources? Can we consider functional, social, and emotional dimensions? How can we enhance and support the creation of an interdisciplinary knowledge base for radical inclusion? We see the seeds of this already happening. Distinct fields such as anthropometrics, biomechanics, perception, cognition, safety, health promotion, and social interaction are increasingly overlapping and creating new expectations for designers, planners, and policymakers. In addition, urban planners, engineers, architects, and other stakeholders are already using these goals to guide their practice.

Cities that are committed to radical inclusion are already putting radically inclusive approaches into practice. One way cities are doing this is by developing peer-to-peer learning communities and participating in global networks such as the Cities for All Global Network on Inclusive and Accessible Urban Development (IAUD) or the The Empowered Cities

[4] Steinfeld, E. and Maisel, J., (2012). *Universal Design: Creating inclusive environments.* John Wiley & Sons.

network.[5] There are a variety of specific ways that cities committed to inclusive innovation and radical inclusion are creating peer-to-peer learning programs or actively learning from each other:

1. Hosting or participating in conferences or workshops: Cities are hosting or participating in conferences or workshops focused on inclusive innovation and radical inclusion, where city leaders are learning from each other and sharing best practices and challenges.
2. Joining or creating a network or forum: Cities are participating in networks or forums specifically focused on inclusive innovation and radical inclusion. This is being done through online platforms or in-person meetings and provides a space for ongoing communication and exchange among city leaders.
3. Engaging in mutual learning and exchange through partnerships and exchanges with other cities: These partnerships or exchanges involve technical assistance, policy sharing, and knowledge exchange and are focused on inclusive innovation and radical inclusion.
4. Using social media and online platforms to connect and share: Cities are connecting online with other cities and sharing information and best practices related to inclusive innovation and radical inclusion. This includes creating online communities or groups, using hashtags to share information and engaging in online discussions with other city leaders.
5. Partnering with organizations or networks in other cities that facilitate peer-to-peer learning and exchange: These partnerships are providing access to a range of resources and expertise, as well as the opportunity to connect with other cities that are also committed to inclusive innovation and radical inclusion.

A practical example for the points above has already been put to practice through a unique partnership between United Cities and Local Governments, Pineda Foundation/World Enabled, the World Blind Union, and other partners. The most impactful elements, including

[5] These networks to some degree overlap and include the cities of New York, Boston, Los Angeles, San Francisco, and Chicago, and many others. They work across key areas including employment, financial empowerment, and housing. These types of networks are vital in ensuring that cities can coordinate their work with and for people with disabilities. Networks also serve a key role in facilitating communication and exchange between city leaders and decision makers in other cities.

setting up of learning communities during the pandemic and a community of practice, focused on inclusive and accessible cities. Global and regional Cities for All communities helped promote peer-to-peer learning opportunities and accelerate the adoption of emerging standards.

In summary, there are many ways that cities can support radical inclusion, including setting up peer-to-peer learning programs, utilizing Universal Design goals, and participating in global networks. Technology can help with all of these measures. It is important to keep these efforts focused on radical inclusion and to ensure that they are inclusive and accessible to all.

Pop Up Box: How Can We Finance Inclusive Urban Transformation?

Financing of inclusive infrastructure requires creative and unconventional approaches that align interests and partnership for sustainable and lasting impact. Below are four sources of funding that ideally should work together:

Governments: Local, regional, and national governments can provide funding for urban transformation efforts through various mechanisms, such as grants, loans, or tax incentives.

Private sector: Private companies, foundations, and other organizations can also provide funding for urban transformation efforts, either through direct investment or through partnerships with governments or other organizations.

International organizations: International organizations such as the United Nations or the World Bank can provide funding for urban transformation efforts through grants, loans, or other forms of financial assistance.

Community groups and nonprofit organizations: Community groups and nonprofit organizations can also play a role in financing urban transformation efforts, either through fundraising or by leveraging their own resources.

Ultimately, the financing for urban transformation efforts may be shared by multiple sources, and the specific distribution of funding will depend on the specific goals and needs of the project, as well as the availability of resources. It is important to consider the long-term sustainability of financing sources and to ensure that funding is allocated in a fair and transparent manner.

Where Do We Go From Here?

Throughout this book we have explored the keys to inclusive and sustainable urban transformation. But what happens if we fail? What are the costs of inaction? How can we ensure city leaders and other urban stakeholders have the tools to act?

There are several vital elements that will help summarize all the insights gathered in the previous pages. To achieve radically inclusive and sustainable urban transformation the following key elements should be top of mind:

Accessibility: Ensuring that cities are physically and digitally accessible to people of all ages, abilities, and backgrounds is essential for promoting greater inclusion and participation. This can involve designing infrastructure and public spaces that are physically accessible, as well as implementing policies and technologies that support digital accessibility.

Affordability: Ensuring that cities are affordable for all residents, particularly those with low incomes or marginalized backgrounds, is crucial for promoting greater social and economic inclusion. This can involve implementing policies such as rent control or inclusionary zoning, as well as investing in affordable housing and other social infrastructure.

Inclusivity: Building inclusive cities requires considering the needs and perspectives of all residents and ensuring that policies and interventions are designed to support the full participation and belonging of all members of the community. This can involve implementing participatory planning processes and engaging diverse stakeholders in decision-making.

Sustainability: Ensuring that cities are environmentally sustainable is essential for building long-term resilience and addressing global challenges such as climate change. This can involve implementing green infrastructure, promoting sustainable transportation options, and adopting energy-efficient technologies.

If we get this wrong and fail to address these key ingredients, the implications can be significant. For example, if cities are not physically or digitally accessible, individuals with disabilities or other marginalized groups may face barriers to participating fully in society. If cities are not affordable, low-income residents may be forced to live in areas with limited access to opportunities, leading to social and economic exclusion. If cities are not inclusive, residents may feel disconnected from the community

and may not have a voice in decision-making processes. And if cities are not sustainable, they may be less resilient to environmental and economic shocks and may contribute to global environmental challenges.

Cities Are Not Waiting on the Sidelines, They Are Leading the Charge for Radical Inclusion

Cities are not waiting for this transformation to take place, city leaders are taking charge. From Amsterdam to Abu Dhabi, from Belgrade to Boston, from Mersin to Medellin, there is a global movement building to accelerate an inclusive urban transformation. I have shared my insights and experiences witnessing and leading these efforts alongside visionary mayors and other civic leaders. Leaders like Emilia Saiz, the Secretary General of UCLG, or Ban Ki-Moon, the Secretary General of the UN, who understand that the future will be won or lost in cities. That it is up to each one of us to build a more inclusive, accessible, and resilient future.

But leaders are not waiting for a savior, real leadership is being put to the test each day. Cities are innovating on inclusion and are experimenting and putting in place new governance models to enhance resourcefulness, inclusivity, increase integration, and more.

To increase resourcefulness, cities as diverse as Quito and Amsterdam are adopting a creative and innovative approach to using their resources. This involves identifying new sources of funding and support, such as partnerships with businesses and organizations, and exploring alternative financing mechanisms, such as crowdfunding or social impact bonds. Cities are also looking for opportunities to share resources and services with other municipalities in order to reduce costs and increase efficiency, all while prioritizing the theme of radical inclusion and belonging.

To enhance inclusivity, cities like Abu Dhabi are prioritizing broad consultation and involving a diverse range of stakeholders in decision-making. Cities are establishing advisory committees or task forces that bring together representatives from different sectors and communities and providing a platform for them to share their perspectives and ideas. Cities like Barcelona are also using digital tools and platforms, such as online forums and social media, to engage with a wider range of citizens and stakeholders, all while weaving in the themes of radical inclusion and belonging.

To increase integration, cities like New York are working to foster collaboration and coordination among different systems and institutions. This involves establishing interagency agreements and partnerships and creating mechanisms for sharing information and resources. Cities like

Chicago are also developing and implementing city-wide plans and strategies that take into account the needs and priorities of all sectors and stakeholders, all while promoting the themes of radical inclusion and belonging.

To increase robustness, cities like Los Angeles are focusing on designing and implementing well-conceived, constructed, and managed systems. This involves investing in infrastructure and services that are resilient to natural disasters and other disruptions and adopting best practices in project management and risk assessment. Cities like London and Doha are also establishing clear policies and procedures for asset management. They are tracking and monitoring costs associated with maintaining and upgrading their systems over time, all while prioritizing the themes of radical inclusion and belonging.

To increase redundancy, cities like Bogota and Berkeley are creating spare capacity in their systems and infrastructure in order to accommodate disruption. This involves designing buildings and infrastructure with multiple redundant systems or establishing backup power sources and other contingency plans. Cities are also investing in technologies and systems that are scalable and flexible, in order to adapt to changing circumstances and demands, all while promoting the themes of radical inclusion and belonging.

These are all emerging and quickly proving to be the new norm. However, to truly understand these transformations, we will need to also have integrated and coordinated research efforts: Research that supports the scaling up of evidence based policies, research that helps drive funding to effective programs.

Some potential research questions that could guide future research on radically inclusive and sustainable urban transformation, with a focus on technology and innovation as a cross-cutting theme, include:

1. How can technology and innovation be leveraged to design cities that are physically and digitally accessible to people of all ages, abilities, and backgrounds?
2. What policies and interventions can be implemented to ensure that cities are affordable for all residents, particularly those with low incomes or marginalized backgrounds, and how can technology and innovation support these efforts?
3. How can we use technology and innovation to engage diverse stakeholders in decision-making processes and ensure that policies and

interventions are inclusive and responsive to the needs of all members of the community?
4. What role can technology and innovation play in promoting sustainability and environmental resilience in cities, and how can these strategies be balanced with the needs and priorities of all residents?
5. How can we use technology and innovation to measure and evaluate the impact of inclusive and sustainable urban transformation efforts, and how can we use this information to inform future interventions and policies?
6. How can technology and innovation be used to identify and address the unique challenges and needs of different marginalized or excluded groups in the context of urban transformation, and how can we ensure that these groups are fully included and supported?
7. What are the best practices and lessons learned from successful urban transformation efforts that have incorporated technology and innovation, and how can these be replicated and scaled in other cities?

In conclusion, it is clear that creating cities of tomorrow that prioritize inclusion and belonging requires a holistic and collaborative approach. An approach that understands the emergence of new technologies but does not depend on them, but rather centers on human values and meaningful governance systems. Each chapter of this book has highlighted the importance of considering the implications of these topics at every stage of development, from project planning to execution and monitoring. It is vital that various stakeholders work together to develop radically different and inclusive approaches that center the needs and experiences of all members of the community.

Moreover, it is essential that inclusion and belonging are integral components of a new and emerging governance process. This means ensuring that the voices and perspectives of marginalized groups are actively sought out and considered in decision-making processes. It also means taking a proactive approach to addressing issues of inequality and discrimination, rather than simply reacting to problems as they arise.

Overall, the key learnings from this book demonstrate the urgent need for cities to prioritize inclusion and belonging in order to create truly sustainable and equitable communities. By adopting a unified and holistic approach, we can build cities that foster a sense of belonging for all residents and create a more inclusive and just society for all. It is up to each one of us to build a new blueprint for cities, one based on inclusivity,

collaboration, and a deeply authentic resonance with emerging social knowledge and wisdom. Above all, we must build the future we need with love and joy for our all our children, and as indigenous communities teach, an additional seven generations yet to come.

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