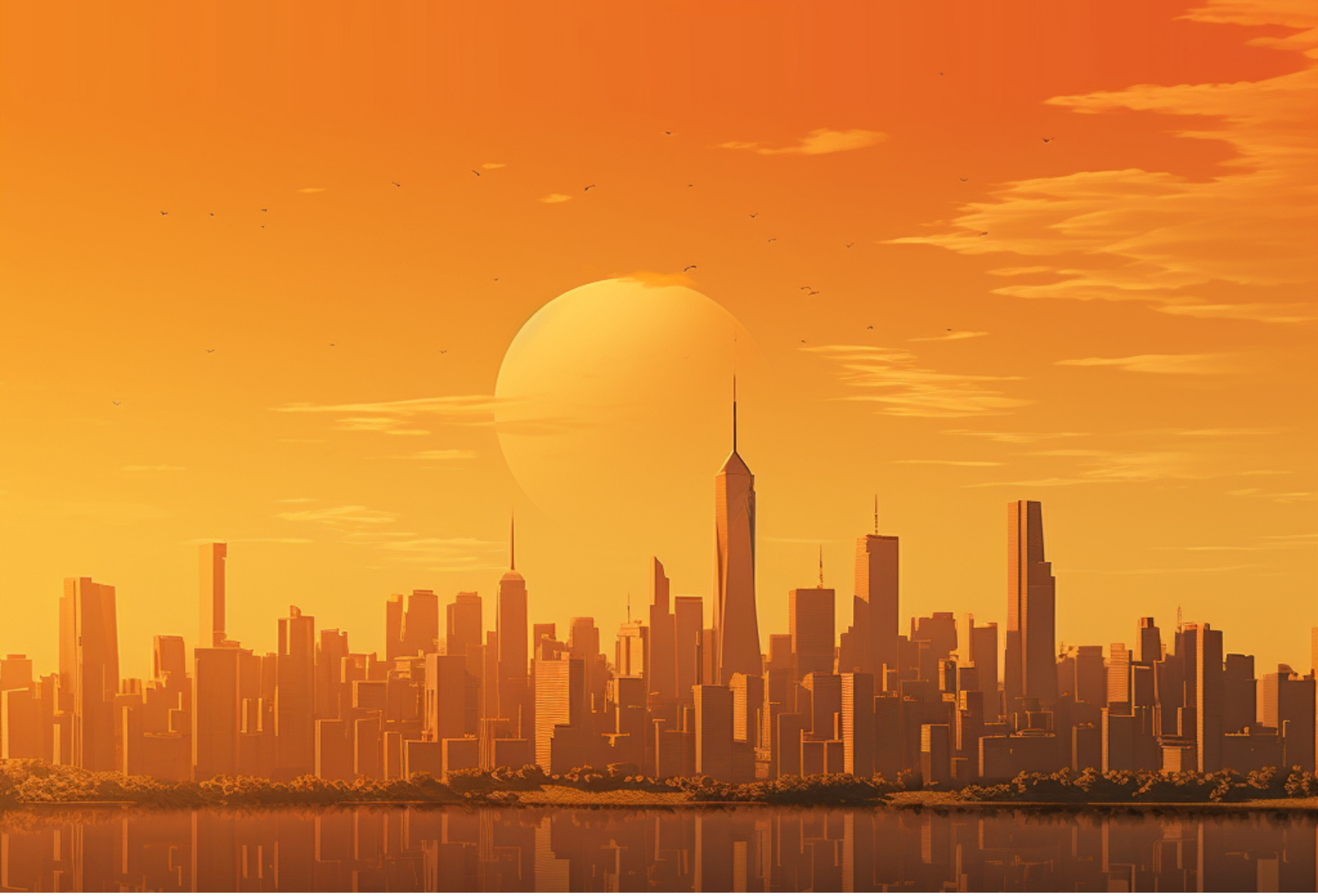

Future Cities: A Transatlantic Townhall Project

Final Report

Aspen Institute Germany

future cities smart cities urbanization sustainable development infrastructure social inequality wealth gap digital divide climate change global warming carbon footprint renewable energy green technology future of work automation gig economy remote work workforce disruption migration public transportation circular economy future cities smart cities urbanization sustainable

CONTENT

EDITORIAL

Hello 2040,

In writing this letter, we cannot help but wonder how much will have changed in less than two decades: today's visions are tomorrow's reality.

In 2023, cities are rapidly evolving. Despite having different backgrounds, cities like Los Angeles, Berlin, and Atlanta find themselves at a similar point: We grapple with challenges like climate change, technological disruptions, and social inequalities. But, most importantly, the decisions we make today lay the groundwork for future cities. Ideally, today's challenges will have turned into opportunities. The shocks of the past few years – from Covid-19 to Russia's war against Ukraine – underline the importance of resilient urban communities emerging strengthened and better prepared for a world marked by polycrisis.

Technology will certainly play a more prominent role and become an integral part of our cities. Smart cities – empowered by novel technologies like artificial intelligence (AI) or quantum computing – could transform vast parts of governance, healthcare, public services, and enhance the quality of life along the way. Transportation is one of the most contentious topics in city politics, but it could well turn into a transformative force. Emissions reduction, autonomous driving, and efficient public transit can change the way we move through our cities and alter the very fabric of urban connections. Sustainability is at the heart of many visions for urban futures. Cities striving for sustainability deliver on climate goals while offering new economic opportunities and greening the urban experience and way of life.

There are many more changes to come, and many of them are reflected in the scenarios contained in this report. These are not small changes, and transformations are never predetermined – therefore, it will remain crucial to engage urban communities, civil society, and businesses by designing responsive and responsible governance structures and city administrations. The Aspen Institute Germany is and has always been a place to have these difficult conversations, with its history closely linked to the many transformations Berlin has been going through in the past 50 years and its strong foundation within transatlantic relations. In the quest for futureproofing, it is vital to preserve and revitalize historical landmarks, ensuring a blend of the past, present, and future. Culture and history remain central to a city's identity, fostering a sense of belonging among urban communities.

The future rests in our hands, and the choices made today will determine the legacy left behind for the generations of 2060, 2080, and beyond.

With determination to change the future for the better,

Stormy-Annika Mildner

INTRODUCTION

Cities are the center of human life. Between 1950 and 2018 alone, the global urban population increased from 751 million to 4.2 billion people. Projections indicate that by 2050, more than two thirds of the world's population will live in urban areas.[1] Furthermore, cities are the engines of a globalized economy, the seats of political power, and hubs of innovation and cultural exchange. While the era of city-states has largely passed for now (with the exception of a handful of cities), cities are increasingly confident in asserting their power on the global stage – and with growing power comes responsibility.

The Covid-19 pandemic has heightened awareness of what constitutes urban community and where innovation needs to be sustained. On both sides of the Atlantic, cities are key incubators for political and social change. At the same time, these cities face similar challenges – the pandemic has underlined this once again: growing inequality, unemployment, digitization, technological transformation, health, energy, and lack of housing are issues that increasingly shape urban futures. Additionally, cities increasingly experience the effects of climate change such as droughts and extreme heat or changing weather patterns and floods. Urban vulnerability and new geopolitical realities have also been underscored by Russia's war on Ukraine and its global repercussions. Social movements have made these challenges more visible than ever and have put forward demands for city leaders to act responsibly.[2] The current phase of recovery and reconstruction presents a unique opportunity to set a sustainable path for the future. Unlike any other organizational or administrative structure, cities offer a unique concentration and combination of intellectual and social, democratic, cultural and leisure, environmental, technical, and financial capital.[3] Therefore, cities are already well-equipped to tackle today's and tomorrow's challenges and lead the way towards sustainable solutions.

The key questions city leaders and urban communities on both sides of the Atlantic need to answer are: What should the city of the future look like? How can cities be designed in a more sustainable, inclusive, innovative, and resilient manner? What role can transatlantic relations play in shaping future cities?

Scenarios serve to visualize the possible futures of cities, because without concrete ideas, it is impossible to create recommendations for action. It is important to think in all directions of the future – probable, possible, plausible. Scenario planning is no crystal ball: which of these scenarios awaits these cities is not predictable. However, it enables city governments and urban stakeholders to prepare for variable futures and set the right course in order to guarantee central values such as democracy, sustainability, and inclusion. The scenario methodology is designed to stimulate open-mindedness and lead participants into a lively discussion. By developing possible scenarios, different eventualities are covered and the implementation of strategic foresight into actions is encouraged. The process – facilitated by Foresight Intelligence – starts with the identification of influential factors, key uncertainties, and relevant trends. Based on these parameters, the working group developed alternative assumptions of the future which then turn into pictures and histories of the future in a process of constant deliberation. The method allows participants to think beyond previous boundaries, anticipate several possible future scenarios, and develop effective strategies. The diversity of the group, both geographically and socially, as well as their different expertise and ages, contributes significantly to the success of the project. The working group – consisting of 15 participants from Berlin, Los Angeles, and Atlanta – met for a total of four working sessions and additional interim sessions between June 2022 and June 2023. Additionally, Aspen Germany organized expert workshops and hybrid events in these three cities in order to cross-fertilize the scenario process through in-depth thematic discussion. The events focused on defining topics and local priorities in each city: sustainable construction and infrastructure (Berlin), smart cities and digitalization (Los Angeles), and youth empowerment, citizen engagement, and workforce development (Atlanta). By highlighting best practices and aiming at policy-oriented outcomes, the events not only contributed to breaking open silos within cities but even more so cleared a path for tackling challenges in a transatlantic framework.

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[1] GGF 2030 Role of Cities in Global Governance Working Group, Make or Break: How Will Cities Shape Future Global Challenges?, 2019, https://www.ggfutures.net/analysis/how-will-cities-shape-future-global-challenges (accessed July 24, 2023).

[2] Nedra Deadwyler, Cities, Inclusion, and the Next Generation Supporting Leadership of Young People in the Civic and Social Sectors: Case Study Atlanta, Townhall Dispatch, Aspen Institute Germany, 2023, https://www.aspeninstitute.de/wp-content/uploads/Townhall-Dispatch_3.pdf (accessed July 24, 2023).

[3] PWC, Cities of the Future. Global Competition, Local Leadership, Pricewaterhousecoopers, 2005, https://www.pwc.com/gx/en/government-public-sector-research/pdf/cities-final.pdf (accessed July 24, 2023).

To create impetus for future cities, you have to create future pictures.

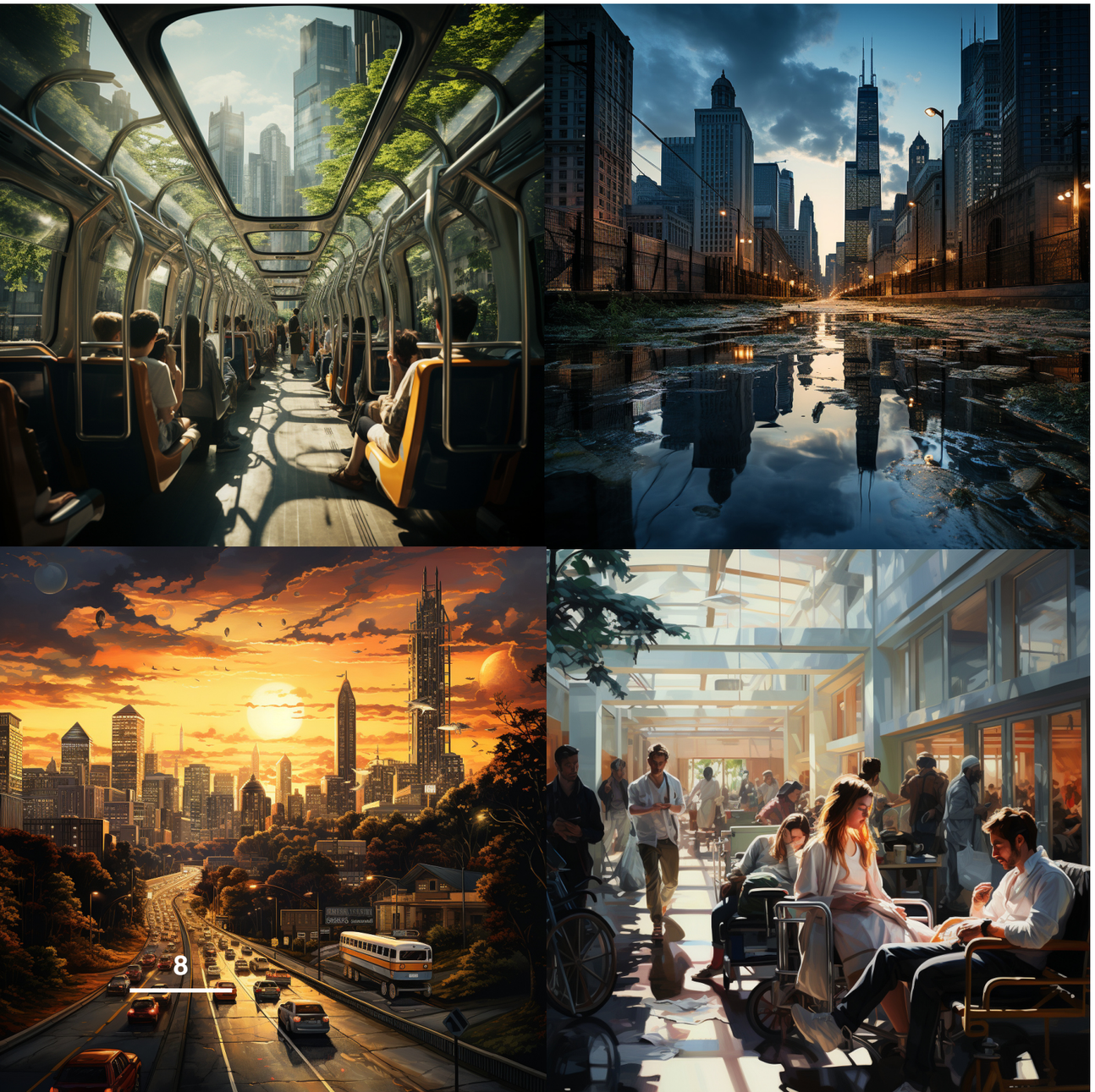
That is why all following pictures were created with artificial intelligence using Midjourney

6

7

BLUE SCENARIO

“Resilience can’t be reactive. Resilience needs resources”



Aspen Institute Germany

TWEETS OF THE BLUE FUTURE

1 🏙️ Cities in 2040 face a crucial choice: collapse or sustainable development. They have grown and reduced inequality, but climate impacts caught them off-guard, harming infrastructure. **#UrbanDevelopment #ClimateChange**

2 🏠 More affordable housing and increased education budgets in cities, but inner-city housing prices surge. Commuting rises, demanding better public transit and low-income housing struggles. **#AffordableHousing #Education #UrbanLiving**

3 💼 City economic ecosystems are healthy, but they need resources for retraining and education to prepare for the future of work. **#EconomicDevelopment #FutureOfWork**

4 🔋 Renewable energy supply in cities is at 65 percent, lower than planned due to politics and conflicts. Urban governments form partnerships for alternative resourcing. **#RenewableEnergy #Sustainability #ClimateAction**

5 🌍 Climate scientists were right: extreme impacts exceeded forecasts. Cities face floods, droughts, and climate refugees. Public goods maintenance suffers, and epidemics resurge. Food security becomes uncertain. **#ClimateCrisis #Resilience**

6 🗳️ City governance delivers socio-economic development but struggles with complexity and climate impacts. Stakeholders in the energy sector demand more influence, some of them hindering transition to sustainable energy. Adaptation is lacking. **#UrbanGovernance**

7 ❗ A tale of two trends: Political discord stalls progress while fluctuating policies disrupt public infrastructure development, leaving cities vulnerable. **#FluctuatingPolicies**

8 ⏱️ A belated climate awakening in cities: Delayed response amplifies challenges. **#ClimateAwakening**

By 2040, cities are on the brink – either towards collapse or towards sustainable development. For the last 15 years, cities have been growing and successfully reducing social inequalities. However, cities have been caught off-guard on the climate front with respect to the degradation of public infrastructure due to the secondary impacts of heat, drought, and air quality.

In 2040, there is more affordable housing in cities because mayors made it a political priority and pushed for more public investment. The budgets for childhood and primary education have increased as well. However, prices for housing in attractive areas (e.g. the inner city) are skyrocketing, and investments into the education system still have to prove sustainable – even though residents have come to expect options for early childhood education and school choice. More people must commute into city centers, so the streets are increasingly crowded, driving demand for more options and more efficient public transit, which cities struggle to provide. Increasing density and mixed-used development have boomed, but demand continues to outpace supply – particularly for low-income housing, in turn driving the cost of land and building materials.

The economic ecosystem of cities is healthy. There is a good mix of local and global economic activity. There is no shortage of skilled labor, but cities continue to need resources to support retraining and education for the future of work.

Renewable energy supply of cities is at a level of approximately 65 percent. This is much lower than the strategies and plans envisioned in 2022. Ideology is driving politics more than deliberations and compromise. Party politics on the city level hamper the development of renewable energy as do international political tensions that increased prices for certain key renewable energy technologies. There are increasingly conflictual relations between urban governments and national/state governments, forcing cities to forge partnerships in an attempt to forgo central decision-making and invest in alternative resourcing. Urban collective procurement for renewable energy solutions (solar panels, buses, etc.) works well for certain projects, even pricing out the nation-state – and driving the need for standardized regulations.

In retrospect, climate scientists were right: the world did miss the 1.5°C goal at large. Over the last 15 years, there have been extreme climate impacts, exceeding the forecasts of even pessimistic experts. There were more frequent, longer, and more severe droughts, hurricanes, and floodings hitting cities directly and indirectly. Many people are on the move to seek shelter from climate change impacts in cities. Experts estimate that there are around 2 billion climate refugees – the majority of whom arrive in cities. Transport and sewer systems suffer from ad hoc interruptions, resulting from an inability to maintain public goods, despite technologically-driven forecasting highlighting these critical, systemic weaknesses, and active sabotage. Epidemics such as polio and cholera are back in cities such as LA, Berlin, and Atlanta and demanding a series of medium-term interventions, which require resource trade-offs and greater investments in local health infrastructure. Food security is not a given anymore, many cities already experienced temporary supply shortages.

Governance systems in cities are transparent, accountable, and deliver in terms of socio-economic development. However, the complexity of decision-making processes has increased, in particular when realizing transformation processes, such as transitioning to a more sustainable energy system with a greater reliance on solar power. Larger groups of stakeholders came into play, including energy companies, government agencies, environmental organizations, and local communities. With this increased stakeholder involvement, corporate interests within the energy sector demand greater access and influence in decision-making. Urban leaders tasked with managing this transition face the challenge to navigate the intricate dynamics between these stakeholders, ensuring that the benefits of solar power, such as reduced greenhouse gas emissions and enhanced energy independence, are balanced with the need to address affordability concerns and the specific requirements of the community. Unfortunately, governance systems are not innovative or flexible enough to cope with irregular climate impacts. Adaptation has not been a constant priority and governance systems are too slow to work in times of crises.

How did we end up in this situation? Two main trends persisted throughout the period. First, political infighting and a lack of consensus hindered progress in addressing societal challenges. The back and forth of policies and budgets were consequences of political parties and factions prioritizing their ideologies and interests over cooperative decision-making. This growing ideological divide limited the scope for finding common ground and fostering a cooperative political culture. Second, policy changes and budget constraints hindered the development of public infrastructure. The constant fluctuations in policies and budgets created an uncertain environment for infrastructure planning and implementation. This led to delays, inefficiencies, and a lack of continuity in infrastructure projects. Without sustained investment and coherent policies, the development of essential public infrastructure, such as transportation systems, renewable energy networks, and food production and distribution systems, faced significant challenges. Two other developments also contributed to the history before the above-described picture of the future: While there were high expectations that technological advancements, particularly in digitalization and AI, would lead to more effective and efficient solutions in the economy, the progress of technology did not bring about sufficient institutional innovations in governance systems. Without the necessary institutional adaptations, the full potential of technology to address societal challenges remained unrealized. Additionally, until the mid-2030s, there was a low perception of the severity of climate change impacts. This lack of urgency in addressing climate change led to complacency and insufficient action. However, as cities started experiencing more frequent and severe droughts, the threat perception began to change. The sudden realization of the immediate and tangible consequences of climate change resulted in a shift in priorities, but it came too late, exacerbating the challenges faced by cities and society at large.

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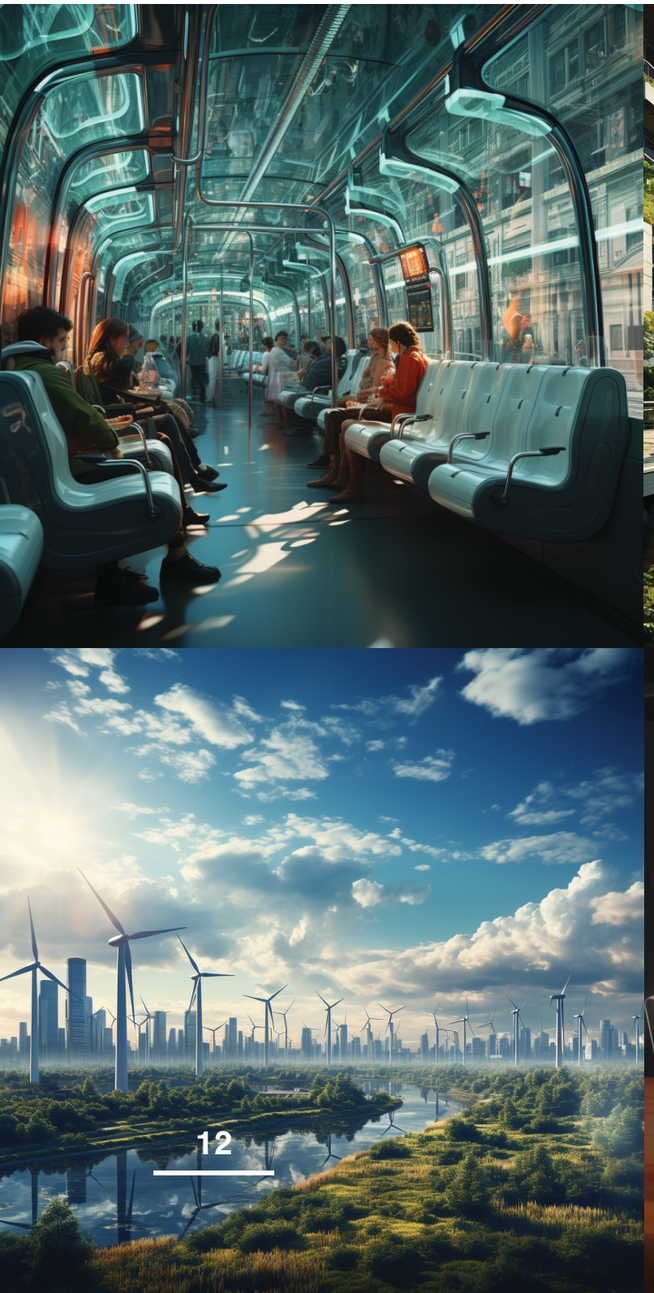
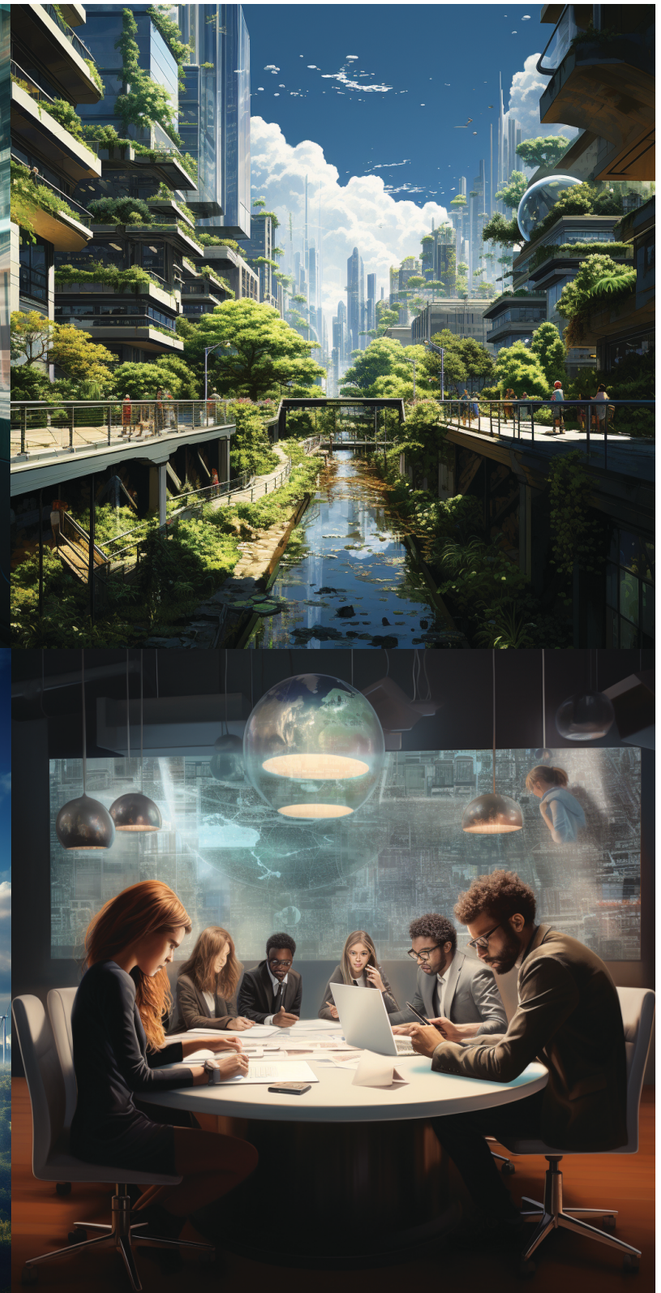
GREEN SCENARIO

"THE CITY OF CONTACT AND SOLIDARITY"





TWEETS OF THE GREEN FUTURE

1 🏙️ In 2040, cities are thriving with healthy, safe, and well-governed environments, thanks to governance innovations driving economic and social progress. **#FutureCities #GovernanceInnovation**

2 💡 City governments embrace digital solutions with continuous training for employees and open data platforms, fostering experimentation and democratic decision-making through neighborhood councils. **#DigitalTransformation #SmartCities #DemocraticGovernance**

3 🌿 90 percent of city energy comes from renewables, reducing prices and decarbonizing through efficiency gains and wind/solar power. Tax incentives support individual energy conservation efforts. **#RenewableEnergy #Decarbonization #SustainableCities**

4 🚎 Electrified public transport and expanded cycling lanes offer sustainable alternatives, while shared electric vehicles reduce traffic and parking demand. Flexible office spaces promote remote work. **#SustainableTransport #GreenMobility #WorkFlexibility**

5 🏘️ Improved public services and inclusive planning reduce socio-economic inequalities, fostering mixed-income communities and ending urban sprawl. Secure green spaces combat homelessness. **#InclusiveCities #AffordableHousing #UrbanDevelopment**

6 🌍 Cities adapt to extreme climate impacts with green zones and urban farming platforms, ensuring food security and addressing environmental challenges. **#ClimateAdaptation #FoodSecurity #SustainableDevelopment**

7 💊 Improved public healthcare systems address mental health and pandemic preparedness, but staffing shortages remain a challenge. Affordable healthcare is a priority. **#PublicHealth #MentalHealth #HealthcareInnovation**

8 💼 Cities boast a healthy economic ecosystem with a balanced labor supply and demand, encouraging local value chains and circular economy practices. **#EconomicGrowth #CircularEconomy #BusinessInnovation**

By 2040, cities are mostly healthy, safe and well-governed places. Over the last 15 years, governance innovations enabled economic and social innovations, which in turn helped to successfully deal with the most pressing problems of societies and cities.

In 2040, cities have proved to be the place where governance innovations can happen. Every government employee participates in a continuous training program on digital solutions. A mentoring program between the young generation and government employees helps to understand the needs and future visions of the young population. A huge open-source platform of public data has been established where demand and supply to a city can be efficiently and sustainably coordinated. City politics are more open to new and unorthodox policies and keen on getting input from civil society. The absorption capacity for information, data, and solutions of city governments is very high. City governments, including administration and political leadership, have adopted a more experimental approach to problem-solving. In general, politicians and government officials seem to have adopted an entrepreneurial culture that can better cope with complex problems by taking risks and communicating these risks to the electorate. At the same time, city governance became more democratic: decision-making processes, for instance, have become more accessible through the establishment of neighborhood councils. The political discourse in 2040 is less ideological and less polarized. Political parties disagree but sit at the table and discuss solutions. Succeeding governments are pragmatic about the previous government projects and constructively revise rather than abandon these. A driver of this development was a generational change in politics and administration. Younger generations living a different organizational culture have risen to the ranks over the last decades and now contribute to more time-efficient and effective governance in general.

No wonder that with good city governance, one can observe other good things happening in the city as well:

Renewables cover around 90 percent of the primary energy demand of cities and the prices for renewable energy are considerably lower than prices for non-renewables. Cities have been on a very successful path of decarbonization by reducing the energy demand through efficiency gains and increasing the renewables supply through wind and solar power. Each individual is responsible for reducing energy consumption and creating new opportunities to save energy. Government is supporting such initiatives with tax incentives.

The public transport system has been electrified; not only trains but also buses run on (renewable) energy. Public transport is accessible and affordable. Additionally, the network of cycling lanes and bicycle highways has been expanded to offer alternatives to individual transport. Electric vehicles are subsidized, and the combustion engine has almost vanished from city streets. More passenger cars are shared than owned, which decreases demand for parking spaces. There is less traffic in cities because, in many sectors, people can work from home. Empty office spaces are used flexibly and can temporarily be turned into public spaces.

Socio-economic inequalities have decreased over the last 15 years. There is more affordable housing and more funding for education and other public services. More mixed-income communities with a diverse range of demographics have been established. In combination with improved public transport, this has ended the trend of urban sprawl. Additionally, the city has become more accessible due to inclusive planning processes that address the needs of people with disabilities and technical solutions such as wheel maps. Cities have also developed secure public green spaces and established reintegration/re-socialization as well as prevention programs to address homelessness.

This successful city development can be considered a big achievement because besides investing in its infrastructures, cities needed to invest in decarbonization and climate change adaptation: Until 2040, cities had to survive many extreme climate impacts.

There were more floods, droughts, and other extreme weather events than expected by scientists a decade ago. Governments around the world and in particular city governments developed more adaptation measures. For example, cities created more green zones by planting hundreds of new trees and implementing water-efficient drip irrigation systems. Food security, as another example, was ensured through the development of urban farming platforms.

Additionally, COVID-19 was not the last pandemic. Fortunately, it led to improvements in the public healthcare system. Data surveillance systems have been improved and pandemic preparedness has increased. More importantly, national health systems started to address mental health adequately and created the necessary infrastructure. Affordable healthcare for all citizens is within reach. However, cities (and even more rural areas) are still combatting staffing shortages.

Cities in 2040 have a very healthy economic ecosystem. There is a match of labor supply and demand, while in towns and in the countryside, this is less frequently the case. Cities enjoy a good mix of local and global economic activities taking place, making the city economy relatively stable and resilient. This well-balanced economic ecosystem could only develop because it is well-governed. City governments, for example, are encouraging businesses to integrate into local value chains and the circular economy with tax incentives.

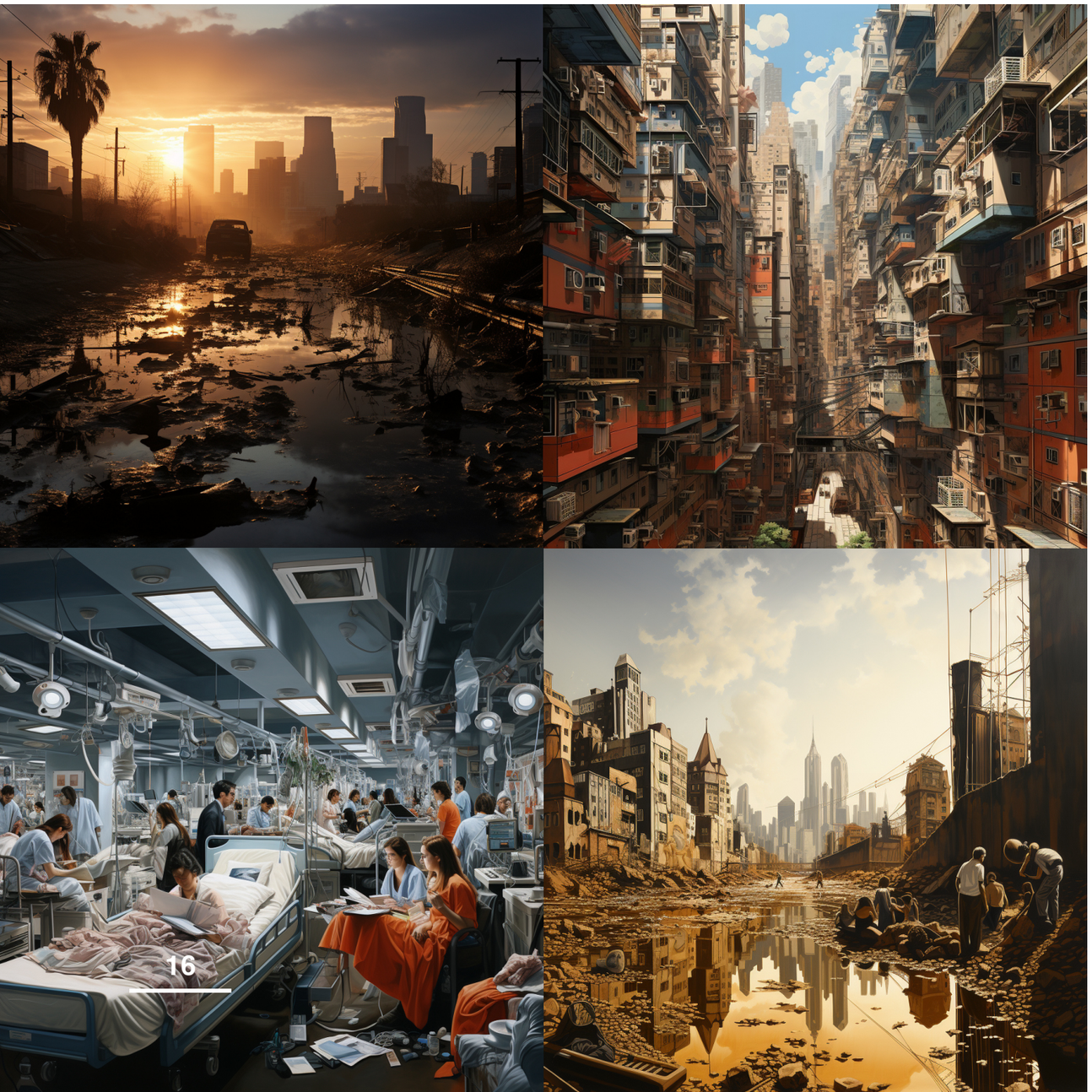
Immigration to cities needs to be managed in 2040. Because of the attractive living conditions, many people want to live in the city – more than it can handle. That is why the influx of people is managed: citizens decided in a vote to introduce a point system, as it was practiced in the past in some nation-states for immigration. At the same time, cities are much better connected and integrated with rural areas, and new work models allow for living in rural cities and working in cities without leading to greater commuting costs.

In 2040, entire cities will become networked information hubs. Thousands of sensors are distributed throughout the city, attached to house walls and traffic lights to record various data on temperatures, light intensity, or pollutants or to signal where a parking space is becoming available.

The desirable future described above came about through three interrelated developments that fostered positive change and transformation. First, there was a broad consensus among the public and political parties regarding the pressing challenges of our time, such as climate change, mobility, and energy transformation. This shared understanding allowed for a collective acceptance of the need for change. Early successes of micro projects in cities that aimed to increase climate resilience, promote equity, and foster innovation played a crucial role in demonstrating the feasibility and benefits of these transformations. Additionally, legislation was put in place that obligated enterprises to contribute to the common good, either through their value chains or through additional activities, further driving positive change. Second, national legislation was revised to facilitate the allocation of additional resources for public investments. This change allowed for the financing of expensive adaptation and infrastructure projects. Furthermore, new sustainable financial instruments were introduced, providing innovative ways to fund public initiatives. The attraction of businesses and innovation from abroad, as well as a shift in attitude towards immigration and integration, contributed to economic growth and expanded the resource base for public investments. Third, cities emerged as powerful actors in driving positive change. They formed networks and collaborations with other cities, sharing best practices and data to address transboundary problems collectively. Urban leaders who had demonstrated effective governance at the city level advanced to the national level, advocating for cities and their role. Changes in governance structures allowed cities to play a more significant role in decision-making processes, enabling them to contribute their expertise and urban intelligence to enhance governance at all levels. Eventually, cities became effective change agents to promote sustainability and equity.

RED SCENARIO

“THE FUTURE IS DARK, DRY, AND SMOKING HOT”



TWEETS OF THE RED FUTURE

1 🌆 By 2040, cities struggle with sustainable development, facing economic, social, and environmental challenges due to governance system failures. **#UrbanDevelopment #Sustainability #CityChallenges**

2 🏚️ Rising socio-economic inequality and lack of affordable housing push lower- and middle-income households to leave cities. Mutual aid networks emerge to address needs in the absence of public services. **#Inequality #HousingCrisis #CommunitySupport**

3 📊 Mobility disparities widen, with wealthy individuals using private urban air taxis, creating isolated "bubble-like" spaces. Limited access to education and controlled media outlets exacerbate social divisions. **#MobilityInequality #IsolatedSpaces #WealthDisparity**

4 🛡️ Disconnected "pods" emerge, self-contained units sharing resources and decision-making, leading to fragmented city governance and reduced state control. **#SelfSufficientUnits #FragmentedGovernance #UrbanPods**

5 🔌 Cities face energy challenges, with renewables accounting for two-thirds of energy demand. Limited access to alternative sources and energy price spikes exacerbate inequities. **#EnergyTransition #SustainableCities #EnergyInequity**

6 🗂️ City governance lacks bottom-up structures, focuses on short-term crises, and suffers from transparency and trust issues. Proactive problem-solving is absent. **#CityGovernance #Transparency #ShortTermFocus**

7 💼 Economic system faces a talent-labor mismatch and fragmented international value chains, leading to untapped economic potential in cities. **#EconomicMismatch #LocalizedEconomy #CityEconomicChallenges**

8 🌡️ Cities struggle with climate impacts, leading to infrastructural failures, water scarcity, and deaths from extreme weather events. Water supply crises worsen, affecting essential services. **#ClimateImpacts #WaterCrisis #ExtremeWeather**

By 2040, cities find themselves unable to achieve sustainable development in economic, social, and environmental aspects due to their failure to innovate their governance systems. As a result, the living conditions in cities have deteriorated to the point where lower- and middle-income households are compelled to abandon them. Cities' populations shrink as many people choose to live off the grid.

Socio-economic inequality has increased compared to 2023. In general, there are fewer public services, and they are less equally distributed. As a result, mutual aid networks organize to address needs. Additionally, the costs of housing are at an all-time high. Because more affordable housing can only be found on the outskirts of the city and in the suburbs, the transportation system is constantly on the brink of collapse. Good schools are where the rich people live, while the quality of schools in poor neighborhoods is very low because they are crowded and underfunded. Access to healthcare in cities depends on socio-economic status as there is more demand for curative treatments as well as health information and prevention measures. The average physical and mental health of people living in cities has decreased since 2023. There are digital islands within the city limits where inhabitants have access to fast internet, while in other parts of the city the digital infrastructure is underdeveloped. An influx of climate refugees, asylum seekers, and other forms of migrants put additional pressure on the city's housing space and public services. Cities are more fragmented and segregated than ever, and there is less social cohesion and more friction between inhabitants. These trends are developing much faster than in the 2020s. Many cities have gated areas now and there are more homeless people than ever before.

The absence of a comprehensive public or mass transportation system creates a stark contrast in mobility between the affluent and less privileged individuals within the city. Wealthy individuals have the means to travel freely, utilizing private urban air taxis to navigate the cityscape without actively engaging with the urban environment. This can contribute to the emergence of separate "bubble-like" spaces for rich and poor residents, where access to education is limited, population density is high, and media outlets are controlled.

In these disconnected bubbles, inhabitants have formed "pods" as a means of sharing resources and minimizing their interactions with others. These pods encompass various aspects of daily life, including healthcare, education, security, and other essential services. Within these self-contained units, decisions regarding governance, laws, and regulations may be made, creating a distinct and separate system from the larger city. As a consequence of this fragmented city structure, certain areas within the city resemble rural regions that are less subject to control by the police or the state.

Because there are other more pressing problems, decarbonization and energy transformation were not a priority over the last 15 years. Renewables only account for two-thirds of the energy demand of cities. This share was reached long before 2040 and has plateaued since then. Energy grids have not been adequately maintained or updated to incorporate alternative sources such as solar and wind power. The control of energy sources is predominantly influenced by nation-states and their borders, limiting cities' access to and control over these resources. Consequently, only higher-wealth communities possess the means to ensure safe and consistent access to energy or invest in alternative energy infrastructure. Furthermore, the occurrence of substantial price spikes in energy exacerbates inequities and leads to disruptive consequences. Tragically, individuals facing limited financial resources may suffer dire consequences, including loss of life, due to the inability to afford essential heating or air conditioning services.

City governance is not in good shape. There are no bottom-up structures or processes in place that could enable early problem detection or effective policy formulation. City governments are focused on the short term. Mayors are driven by events and crises, not proactively shaping the future. A top-down culture has developed under which mayors became increasingly disconnected from the city bureaucracy. Governance systems are not transparent and city governments are not perceived as trustworthy.

The economic system of cities is in bad shape because there is a massive mismatch between talent supply and labor demand. Additionally, international value chains are more fragmented than in the 2020s so most of the economic activity in cities is rather localized, which means a huge part of the economic potential of cities is unused.

In addition, cities are not prepared to deal with the climate impacts that were expected a decade ago. There are more heat waves and droughts as well as floods and cold waves. As many infrastructures cannot deal with this (electricity grid, health services, housing, food supply chains, roads, etc.), more and more people die from climate impacts every year. The water supply in Los Angeles, for example, faces severe limitations, restricting its use to essential purposes. The primary sources of water include groundwater, stormwater capture, and recycled water. To safeguard the intermittent imported water supply from the Colorado and LA aqueducts, armed militias are deployed. Another example: Atlanta is currently experiencing a dire need for water. The dams that were responsible for diverting water from the Chattahoochee River proved inadequate. Additionally, there were failures in enforcing proper procedures to prevent spills and dumping into waterways. As a result, the water sources have not been adequately replenished and have become highly polluted, rendering them unfit for municipal consumption. The resources to purify water are predominantly accessible to cities and households with high wealth. Coffee shops do not exist anymore except in the richest parts of a city.

The gloomy situation in 2040 can be attributed to several key factors that unfolded during the 2020s and 2030s. These factors include the automation of labor and knowledge work, increasing social disparities, deteriorating trust in political systems, the impact of climate change, and the exacerbation of socioeconomic inequalities. First, over the years, advancements in technology and artificial intelligence led to the automation of various jobs and tasks, resulting in a significant reduction in the demand for the workforce. While automation promised increased efficiency and productivity, it disproportionately benefited a small portion of the population which was able to capitalize on digital innovations. The majority of the workforce faced unemployment or struggled to find meaningful employment in an increasingly automated world. Second, the rapid pace of automation outpaced the development of regulatory measures to mitigate its negative consequences. As a result, social disparities widened, with a small segment of society gaining immense wealth and power while others faced economic hardship and marginalization. The lack of effective regulations and redistributive policies worsened the situation, leading to increased inequality and social injustice. Third, the exposure of election manipulations, high-profile fraud scandals, and misinformation campaigns eroded trust in political parties and the political system as a whole. This climate of mistrust fostered an ideological political culture centered around confrontation rather than collaboration. Populist movements gained traction both nationally and internationally, further undermining the stability of governments and exacerbating economic challenges. Fourth, the severity and frequency of climate change impacts were underestimated, and governments failed to effectively address the challenges

posed by climate change promptly. As a result, the impacts of climate change, first and foremost droughts, intensified and created significant challenges for both national and city governments. The inability to adequately respond to these challenges further widened the gap between the privileged few who could afford protection and adaptation measures and the vulnerable populations left without sufficient support.

Fifth, the combination of the developments described above contributed to a worsening economic climate. National governments squeezed city budgets and limited their ability to provide essential services and support to their residents. This, coupled with the exacerbation of economic disparities, led to increased polarization and deepening social rifts.

CITIES AS NATION STATES

WILDCARD

Like no other event in recent memory, the Covid-19 pandemic demonstrated not only the impact a single event can have on immediate day-to-day life but also the implications unexpected developments can have for overall trajectories. Unforeseen events like the Covid-19 pandemic, in general terms, qualify as so-called wildcards as they might implicate an overall shift. Focusing on wildcards uncovers uncertainties that usual frameworks of scenario planning tend to miss.[4] By including or reflecting on these known knowns, unknown knowns, and unknown unknowns, scenario planning delivers more comprehensive results.

The “Future Cities” working group looked at a variety of potential wildcards including a sudden shrinkage of urban populations (reversing a common trend), a significant liberalization of migration policies, no more taxes, and the development of mind-reading technology. However, only one development qualified as a wildcard according to the criteria of (1) constituting a rapid development or sudden event; (2) being rather not probable but plausible; and (3) having a massive influence on the future of the city in case of occurrence: The (re-)emergence of city-states or cities as independent states constitutes not only a significant diversion from the status quo but also an alteration of future trajectories. What would be the implications of such a development?

Today, international affairs and politics overall are dominated by nation-states. However, they are a relatively novel invention while city-states have been around since antiquity (even though most of them have now become part of nation-states).[5] Over millennia, cities have served as testing grounds for a variety of governance and economic models demonstrating a unique adaptive capability. As cities have again and increasingly gained levels of independence within their nation-states, their responsibilities have grown alike. It is crucial that cities step up: when it comes to the reduction of carbon emissions as cities account for 70 percent of them or in the case of urban resource consumption as 75 percent of world consumption happens in cities.[6] The United States presents a very clear example: while economic activity is concentrated in cities, they are underrepresented in political decision-making. This “deep spatial misalignment of America’s economics and politics”[7] contributes to inequality and polarization.

According to authors from the World Economic Forum, it is indispensable to empower mayors, civic leaders, and citizens, to ensure they have access to basic information that includes data on adaptation and risk prevention possibilities in the climate space and beyond. Only empowerment through datafication can further scale-up city action.

1 HYPERCONNECTION

Some global cities in North America and Europe have already become hyper-connected and data-rich, enabling and showcasing their ability to extend influence on a global scale.

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[4] Diana Scearce and Katherine Fulton, Global Business Network: What if? The Art of Scenario Thinking for Nonprofits, GBN Global Business Network, 2004, https://www2.deloitte.com/content/dam/Deloitte/us/Documents/monitor-institute/us-monitor-institute-what_if.pdf (accessed July 24, 2023).
[5] Max Stucki, Trey Tan: City States – The Wave of the Future?, Futures Platform, 2019, https://www.futuresplatform.com/blog/city-states-wave-future (accessed July 24, 2023).
[6] Robert Muggah, Randy Sargent, Illah Nourbakhsh, Paul Dille: Cities, not Nation States, Will Determine our Future Survival. Here’s Why, World Economic Forum, 2017, https://www.weforum.org/agenda/2017/06/as-nation-states-falter-cities-are-stepping-up/ (accessed July 24, 2023).
[7] Richard McGahey, Radical Idea: Redraw the U.S. Map as a Nation of City-states, Big Think, 2023, https://bigthink.com/the-present/us-nation-city-states/ (accessed July 24, 2023).

The revolution in digital communication and infrastructure development has transformed the way cities interact with each other in trade, diplomacy, and cultural exchange.[8]

2 HYPERCOMPETITION

While this interconnection of cities offers significant advantages, it also results in heightened competition. Present-day cities have evolved into major economic powerhouses, and the relentless march of digitalization and urbanization further fortifies this phenomenon. Consequently, an intensified form of economic hyper-competition already looms on the horizon, especially for the attraction of skilled labor, not solely among nation-states but even more so among global cities.[9]

3 HYPERLOCALIZATION

Additionally, the innovative power of cities will grow manifold due to their attractive and diverse ecosystems. Another pivotal aspect to consider in the context of the re-emergence of city-states is an increasing hyper-localization. This growing trend of and necessity for self-sufficiency demands localized production, driven by ethical and ecological considerations and culminating in an increased variety of regionally-crafted goods, such as urban-farming produce or 3D-printed infrastructure.[10] These emerging movements wield the potential for extraordinary impact on the plausible city-state of the future and should therefore be included in the formulation of future scenarios.

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[8] Robert Muggah, Randy Sargent, Illah Nourbakhsh, and Paul Dille, Cities, not Nation States, Will Determine our Future Survival. Here's Why, World Economic Forum, 2017, https://www.weforum.org/agenda/2017/06/as-nation-states-falter-cities-are-stepping-up/ (accessed July 24, 2023).

[9, 10] Max Stucki and Trey Tan, City States – The Wave of the Future?, Futures Platform, 2019, https://www.futuresplatform.com/blog/city-states-wave-future (accessed July 24, 2023).

RECOMMENDATIONS FOR ACTION

The **three scenarios illustrate possible development paths for cities** in the transatlantic environment. From a worst-case scenario "red", to a continue-as-is scenario "blue" or a desirable scenario "green". The ideal outcome would be to achieve the “green” and prevent the “red” scenario. But also a continue-as-is scenario shows negative effects on democratic cities of the future, which should be prevented. So what are recommendations for action at the city level as well as in the transatlantic context?

SOCIAL DIMENSION

CITY LEVEL

1: Invest in suburban amenities and infrastructure to counter rising prices in the inner city and establish a department on inclusive urban planning to address future inequalities in society within the districts.

2: Establish an open-data platform to guarantee equal education for all and promote the integration of neighborhood councils in a digital way to increase the participation and trust of the citizens.

3: Initiate a task force on mental health and pandemic preparedness to increase resilience among citizens.

TRANSATLANTIC LEVEL

Initiate a US-German City council to share best practices and knowledge on social integration, labor standards and workers’ rights, youth empowerment, mental health and social welfare.

ECONOMIC DIMENSION

CITY LEVEL

1: Invest and strengthen local value chains and circular economies to increase the city's economic power as well as build resilience to future crises such as pandemics.

2: Investment in new work infrastructure and location attractiveness (nationwide 5G, shared work spaces, sufficient remuneration) to attract more skilled personnel and thus increase the strength and resilience of the economy.

3: Establish innovation hubs and research centers and offer incentives for technology and startup companies specialized in key-technologies like semi-conductors, green technology, artificial intelligence, biotechnology, and agriculture technology.

TRANSATLANTIC LEVEL

Establish a transatlantic city incubator with an exchange function, as well as an exchange program specifically for trainees, to improve knowledge transfer and collaboration across national borders and contribute to a stronger economy.

ECOLOGICAL DIMENSION

CITY LEVEL

1: Invest in technologies and architecture such as the sponge city, green roofs and heat-resistant architecture that are adapted to the consequences of climate change and can withstand increasing weather phenomena.

2: Increase investments and subsidies in green technologies and their infrastructure in the form of balcony power plants, solar and wind power expansion, and state-independent but compatible development of hydrogen pipelines to promote the energy transition and self-sufficiency of energy supply.

3: Promote the development of bicycle lanes and sidewalks, the use of electric transportation for public transport as well as the offer of car sharing to counteract climate change and increase space in the city.

TRANSATLANTIC LEVEL

Initiate an US-German Research Taskforce to increase scientific development for environmental city planning and create an open-source network to ensure fast and free transfer of critical knowledge.

ROADMAP TO THE FUTURE

The development of scenarios can only be a starting point for thinking about the future and putting strategies into action. Scenarios provide us with different versions of the future and are not afraid to reveal every possibility – the good, the bad, and the ugly. However, they are more than just thought-provoking but, above all, action-inspiring by outlining concrete policies and the next steps to achieve certain goals or prevent unwanted developments.

After completing the scenario process with the participants of the Future Cities group, the Aspen Institute transferred the expert knowledge into recommendations for action for the city level and transatlantic level in three dimensions: ecological, economical, and social. The roadmap to the future calls for city experts and decision-makers in politics to in-depth analyze the recommendations for action and consider them for policy making. Only this can ensure a positive impetus for future development.

The years of the Biden administration offer a unique opportunity to put the transatlantic partnership on a more solid, sustainable, and resilient footing. Including cities in the transatlantic framework and making urban voices more prominent are key pieces of this puzzle. The Trump administration demonstrated the importance of adding another layer to the transatlantic connections beyond the federal level; cities were ready to step up. In order to deepen transatlantic ties in rocky times and in view of increased geopolitical uncertainties, closer cooperation of urban stakeholders from all parts of society is a necessity. The appointment of the first U.S. Special Representative for City and State Diplomacy within the State Department proves that the Biden administration is serious about bringing cities to the table. Now is the time for cities to get creative and take the future into their own hands – for their own sake, but also to future-proof the transatlantic relationship.

What lessons can we draw from the “green”, “blue”, and “red” scenarios? They offer clear roadmaps to diverging futures and underscore that action is necessary – no matter the intended outcome. All scenarios include aspects that might be considered desirable for the futures of Berlin, Atlanta, and Los Angeles. However, to achieve and preserve a free, democratic, sustainable, and inclusive city in 2040, decisive action is necessary. The worst conceivable outcomes can be tackled early on – luckily, many roads could lead to a bright future, which offers cities some creative scope. The priorities are clear: to succeed, cities need to implement strategies that address the most pressing challenges in the areas of sustainable infrastructure, smart cities, and digitalization as well as citizen engagement (especially youth empowerment and workforce development). The key lesson of “Future Cities – A Transatlantic Townhall Project” is that transatlantic cooperation is of particular importance in order to support the positive development of cities on both sides of the Atlantic. As part of the project, leaders in Berlin, Los Angeles, and Atlanta have taken the first steps and proven that a transatlantic angle is worth exploring. Now, it is time to expand and deepen these efforts by including a wider range of cities in the transatlantic area which share similar ambitions. The focus should be on the exchange of best practices, direct cooperation, and communication as well as collective data exchange. It is the current momentum that can drive successful urban development. However, there is no time for ‘business as usual’ and the window of opportunity to tackle urban futures in a transatlantic framework is closing quickly.

ABOUT THE GROUP AND THE PROJECT

Cities are an integral part of political, economic, and social strategies. They represent progress and positive change but also bear great responsibility regarding climate change, social justice, mobility, health, and the future of work. Within the framework of transatlantic discourse, “Future Cities – A Transatlantic Townhall Project” contributes to the sustainable and future-oriented development of the cities of Berlin, Los Angeles, and Atlanta. How should these cities look like 10, 20, 30 years from today? What role can transatlantic relations play in shaping them? These are the central questions a diverse group of representatives from these three cities, active in politics, culture, health, and many other socially and urbanely relevant fields, tackled to make the cities of tomorrow more sustainable, inclusive, innovative, and resilient. A central component was the development of future scenarios. Based on scenario planning exercises, expert workshops, and transatlantic conferences, this project raised awareness of the complexity of the city of tomorrow. Further, it provided new impetus for dealing with the most pressing challenges and opportunities, such as pandemics, climate change, the future of work, advancing digitalization, mobility, and addressing structural inequalities and racism. The facilitated workshops and seminars enabled the participants to reflect holistically on the forward-looking development of cities based on democratic values. By exploring different plausible future scenarios, discussing the opportunities and challenges, and using those ideas to make better decisions today, the project delivered concrete results: better anticipation of changes that could emerge in the future, policy innovation, revealing options for experimentation with innovative approaches; and futureproofing and stress-testing existing or proposed policies. Most importantly, this project provided an inspiring space to critically reflect on the roles and responsibilities within the urban ecosystem. Extending its gratitude, The Aspen Institute Germany acknowledges the valuable contributions of the project participants and the instrumental part of the Lotto Stiftung in funding.

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ABOUT THE ASPEN INSTITUTE GERMANY

The Aspen Institute Germany is an independent, non-partisan organization that promotes values-based leadership, constructive dialogue between conflicting parties, and transatlantic cooperation to strengthen a free and open society. Founded in 1974 in Berlin, the Institute has been bringing together decision-makers and experts from politics, business, academia, media, culture, and civil society for 48 years to address the challenges of our time. All working group members have participated in the Future Cities – A Transatlantic Townhall Project in their personal capacities. The scenarios were drawn up using group discussions, but do not necessarily reflect the opinions of individual members or of their respective institutions. Some members have only participated in individual sessions.

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