

ents	03 Introduction	10 Offering environmental-friendly and sustainable
cont		transportation options
Table of contents	04 Key takeaways	
Ta		12Expanding open spaces for walking and biking
	05 City challenges	
		13 Enhancing support and infrastructure for EVs
	07 Citizen expectations on mobility and	
	transportation	15 Recommendations and next steps
	08 Implementing strategies reduces traffic congestion	16 Survey methodology

Introduction

he pandemic transformed mobility and transportation in cities globally. It highlighted challenges in the system, changed citizen expectations, travel preferences, and more. These new patterns have provided an opportunity for city and transportation leaders to rethink the future of urban transportation and mobility.

In December 2022, Deloitte collaborated with ThoughtLab to survey 200 city leaders and 2,000 citizens globally to better understand the ways in which cities are becoming future-ready. The survey suggests that city leaders

and citizens foresee considerable shifts in urban mobility and transportation. Surveyed city leaders are aiming to reshape urban mobility by aligning with citizen expectations around less congestion, open spaces for walking and biking, and more sustainable transportation options including better infrastructure for electric vehicles (EVs).



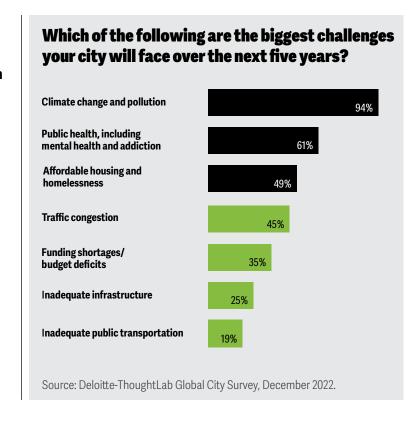


Key takeaways

- City leaders feel traffic congestion and inadequate infrastructure and public transportation continue to stifle transportation in cities.
- Aligning with citizen expectations on transport and mobility can be vital for city leaders around the world to successfully reshape urban mobility for the future.
 - Surveyed city leaders are addressing traffic congestion by implementing a range of measures such as congestion pricing and traffic management systems.

- Citizens want cities to offer more environment-friendly and sustainable transportation options.
- Expanding the availability of open spaces for walking and biking is crucial—an endeavor cities globally are increasingly prioritizing.
- Citizens surveyed want local governments to do more to move toward sustainable modes of transport like electric vehicles and build the required EV infrastructure.

Traffic congestion and inadequate infrastructure and public transportation continue to stifle mobility in cities

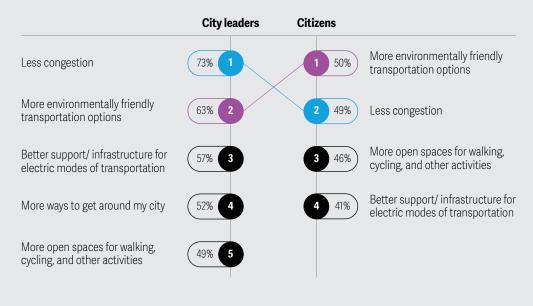


- Most city leaders surveyed (94%) globally identified climate change and pollution as their biggest challenges, which could influence their transportation and mobility strategy.
- Funding shortages continue to hinder progress across city domains.
 However, it has a deeper impact on urban public transportation and infrastructure development that needs huge capital investments.

Most city leaders surveyed continue to be aligned with citizen expectations on mobility and transportation in urban areas

This shared understanding will be important in reshaping urban mobility for the future, with a focus on environmental and sustainable modes of transport including EVs, public transportation, cycling, and walking.

Which of the following areas have the pandemic and other recent trends increased citizen expectations in travel and transportation?



Source: Deloitte-ThoughtLab Global City Survey, December 2022.



City leaders across the globe can rethink transportation and mobility by aligning with citizen expectations

The article dives deeper into the four citizen expectations areas of reducing congestion, transitioning to sustainable transportation options, developing infrastructure for walking and biking, and supporting the shift to EVs.

- Implement strategies to help reduce traffic congestion to improve commuting efficiency, reduce travel time, and provide seamless transportation for individuals.
- Offer more environment-friendly and sustainable transportation options to help reduce carbon emissions and combat climate change.
- Expand availability of open spaces for walking and biking, which can enhance public health, promote physical activity, and thereby create a healthier community.
- Enhance support and infrastructure for EV infrastructure by transitioning to cleaner energy and ushering in a generational shift in mobility.

Traffic congestion continues to be a challenge in most regions, especially in African, Asia-Pacific, Latin American cities



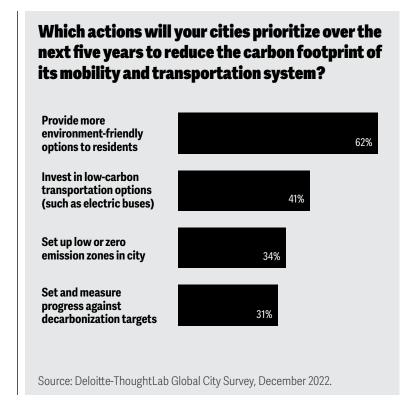
generational shift in urban mobility

City leaders surveyed are prioritizing congestion pricing in their business models and are also increasing their future spending and investments



- Congestion pricing, including <u>road usage charging</u>, is seen as an effective tool for managing traffic congestion and encouraging the use of alternative modes of transportation.
- To reduce traffic volume and improve traffic flow, 68% of city leaders surveyed globally cited prioritizing congestion pricing/user-based charging/curb pricing/road-user charging in their business models in the next five years.
- Globally, 66% of surveyed city leaders say their cities are stepping up investment in traffic and congestion management on streets and roads with MENA leading the pack followed by Asia-Pacific.

Adopting more sustainable modes of transport is a top priority for city leaders and citizens surveyed globally

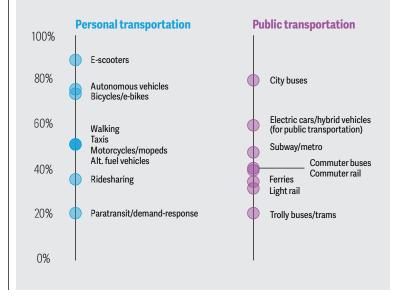


- City leaders surveyed are prioritizing aligning transport plans with social and environmental goals.
- Cities are also prioritizing multifaceted approaches such as providing more environment-friendly mobility options and investing in low-carbon transportation options to reduce the carbon footprint in mobility and transportation systems over the next five years.

City leaders surveyed are also shifting their focus toward using more sustainable public transit options

Over the next five years, which of the following modes of transportation will your city seek to increase in usage?

Percentage denotes "increased usage"



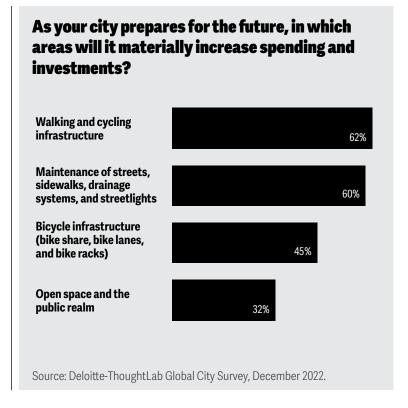
- City leaders globally want to encourage more sustainable public transit options such as electric, hybrid, and alternative fuel vehicles.
- City leaders surveyed also want to see residents move toward using e-scooters, bicycles, or walking, especially for shorter, last-mile transportation needs.

CASE STUDY: BOOSTING PUBLIC TRANSIT IN AUSTIN

Austin's "Project Connect" is an ambitious US\$7 billion transit-expansion project aimed at moving the city away from cars by developing a more effective multimodal transportation system. The plan aims to develop four rapid-transit routes for buses, two new light rail lines, and new subway tunnels through downtown and South Austin areas.

Sources: Luz Moreno-Lozano, "<u>Austin's Project Connect light rail plan unveiled</u>," Austin American Statesman, May 23, 2023; Project Connect, "<u>A new transit plan for Austin</u>," accessed July 14, 2023.

City leaders are increasingly prioritizing the expansion of open spaces and infrastructure for walking and biking

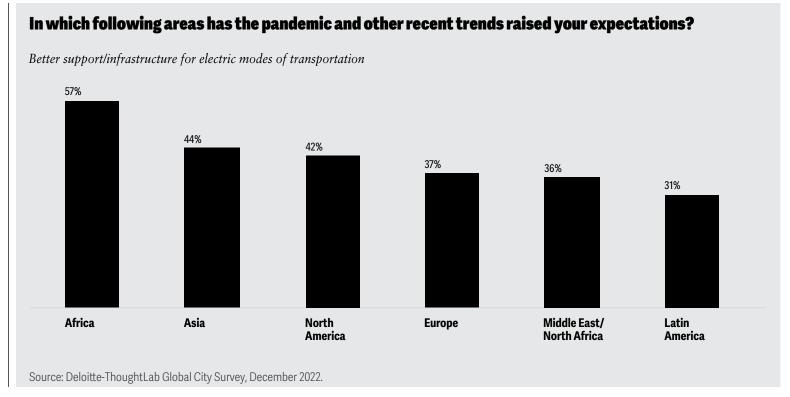


- By investing in and designing walking and cycling infrastructure (62%) and networks of bicycle infrastructure (45%), cities are encouraging more people to choose these modes of transport for their daily commute (especially last-mile connectivity) or recreational purposes.
- By moving away from cars as the primary mode of transportation and embracing <u>multimodal options</u>, cities can unlock multiple benefits, like reduced congestion, better connected transportation networks, and more.
- As they plan future investments, cities should not only tackle present challenges but also develop "infrastructure for good," that is, projects that have positive outcomes for the economy, environment, and society as a whole.

Citizens surveyed want local governments to do more to help them move toward EV transportation by developing supporting EV infrastructure

There is a growing intent in consumers globally to move from internal-combustion engines (ICEs) to more electrified vehicles.

The data suggests that surveyed citizens want their cities to support and build the required EV-charging infrastructure and broader EV-maintenance ecosystem.



generational shift in urban mobility

City leaders are planning to expand the EV-charging network by partnering with the broader transportation ecosystem

Actions cities are prioritizing to accelerate the development of EV-charging infrastructure over the next five years

Companies in the transportation ecosystem to improve EV-charging infrastructure

76%

Partner with transportation providers to develop EV-charging facilities

76%

Integrate EV-charging stations with public transit facilities

71%

Source: Deloitte-ThoughtLab Global City Survey, December 2022.

- <u>Charging infrastructure</u> could be the biggest short-term hurdle for EV expansion. Building a ubiquitous charging network that resembles today's gasoline and diesel infrastructure may be one of the toughest challenges to address.
- By expanding the availability of charging stations throughout cities,
 EV drivers can have the confidence and convenience to travel longer distances without the fear of running out of power.
- Cities surveyed are taking various steps to overcome this hurdle, such as collaborating with businesses, power utilities, and other stakeholders.





Recommendations and next steps

As city leaders strive to tackle both new and long-standing mobility and transportation challenges in an ever-changing world, they should be more intuitive—to sense and respond to citizen needs as they emerge—and more open to adopting innovative solutions leveraging the latest tools and technology available at their disposal.

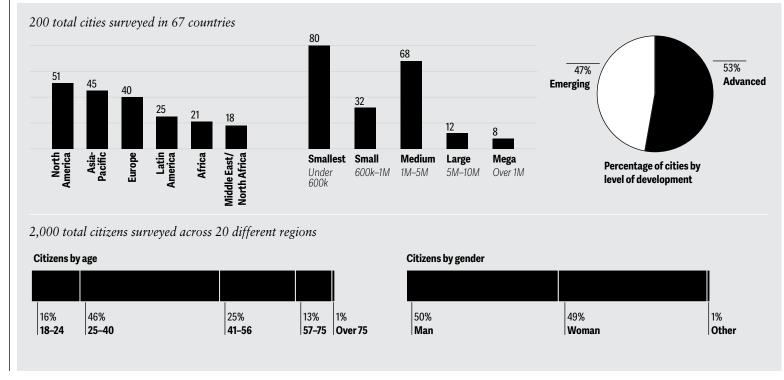
- Partner with different stakeholders to create a more connected transportation network. As city leaders grapple to address traffic congestion, they should consider partnering with a broader ecosystem including the private sector, technology firms, educational institutions, and community organizations to ideate a variety of solutions to help achieve this collective objective.
- Integrate a sustainable lens into transportation decisions. As climate change threatens cities worldwide, city leaders should consider introducing policies and regulations to shift to sustainable transportation options, provide incentives for using environment-friendly modes and encourage clean energy technological innovations that lead the way toward a greener future.

- **Promote people-centric infrastructure.** City leaders should consider designing streets for people, not vehicles, that are attractive and safe for walking and expanding cycling and biking networks.
- Scale the EV infrastructure equitably. As city leaders move toward expanding the EV infrastructure, they should ensure that no one is left behind: low-income and disadvantaged communities should also be able to equitably reap the benefits of the growing EV network.





Survey methodology



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Through the Smart Cities & Urban Transformation practice, Deloitte has an ambition to improve citizens' quality of life, solve key urban challenges, and positively contribute toward the United Nation's Sustainable Development Goal 11: Make cities and human settlements inclusive, safe, resilient, and sustainable. The initiative offers up-to-the-minute thinking on how cities can use advanced digital technologies to address such key issues as mobility, data, and sustainability. Drawing on our global reach and cross-sector experience, Deloitte translates a holistic vision of smart cities into actionable, concrete solutions that can enable a brighter urban future. To learn more, visit <u>Deloitte.com</u>.

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