منتدى مستقبل العقار
Real Estate Future Forum

Codifying the BEST GLOBAL CITY

In collaboration with Boston Consulting Group

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Executive Summary

Urban codes may sound like a technical concept relevant only to planners and engineers, yet in practice they are among the most powerful tools shaping everyday urban life. Urban form is not neutral. The rules governing land use, building form, density, and streets directly influence public health, social interaction, economic productivity, and environmental resilience. A growing body of global research—from public health, urban economics, and climate studies—shows that compact, mixed-use, walkable environments are associated with better physical and mental health outcomes, stronger community ties, higher land productivity, and greater resilience to climate stress, while rigid or outdated codes often entrench car dependency, social segregation, housing scarcity, and environmental vulnerability for decades. Urban codes also function as economic infrastructure: by determining where people can live, work, and access services, they shape labor markets, commuting patterns, housing affordability, and a city's ability to attract talent and investment. As cities face accelerating change—from climate adaptation and new mobility to shifting lifestyles and technologies—the strategic importance of urban codes has only intensified. Static regulatory frameworks increasingly struggle to keep pace with residents' expectations and policy ambitions, making code reform not technical adjustment but a central instrument of urban transformation.

There are three important ideas to consider for cities that actively develop or rejuvenate their urban environment:

- **Use codes to translate city or area strategy into the built environment,** ensuring that long-term visions for sustainability, livability, and economic growth are materially realized on the ground

- **Leverage urban codes as a major lever for advocacy, attractiveness and livability,** creating identity and sense of belonging through beauty and comfort

- **Ensure urban policy allows codes to adapt to the pace of change now expected by residents and visitors,** rather than prioritizing legacy standards that no longer reflect how people live, work, and move

Lessons from global champions—such as Copenhagen, Singapore, Paris —demonstrate how urban codes can evolve from rigid control mechanisms into strategic tools that enable high quality of life, climate resilience, and economic competitiveness. These cities show that strong regulation and flexibility are not opposites but complements when aligned with clear public goals.

For cities that are emerging in their ambitions of economic strength and global-level livability, urban codes represent a critical leverage point. As these cities continue to grow and diversify, the choices embedded in today's codes will shape urban experience for generations. Getting urban codes right is therefore not a technical exercise, but a foundational act of city-making.

02

Use codes to translate city/area strategy into the urban environment

Throughout history, the built environment has shaped cities—and, in turn, has been shaped by cities' strategic priorities. For example, the expansion of road networks responded to the need for larger labor markets and higher productivity, while Le Corbusier's zoning principles addressed the need to separate industrial functions from residential life.

Today, however, road dominance and urban sprawl limit land productivity and constrain economic development. According to BCG's Cities of Choice 4.0[1] global ranking, cities face mounting pressure: traffic time has increased by 6% compared to 2022—equating to an estimated $1.6 trillion in additional loss in GDP globally based on average productivity[2]. Housing shortages have driven prices up by an average of 40.3% across 80 cities over the past decade, while economic activity remains concentrated in a limited number of focal areas, with average economic land use at just 20%.

These challenges define a new set of priorities for cities shaping their built environment. Cities are pursuing strategies to activate economic development through higher land and people productivity, while accelerating housing delivery to meet rising demand — often struggling to balance residential growth with economic and industrial uses. This is where urban codes can play a decisive role:

- **Enable mixed-use zoning and multiple building uses.** This approach expands opportunities to combine living and economic activity, increases land productivity, and reduces daily commuting and traffic.

- **Address housing shortages through adaptive reuse.** Obsolete or underutilized industrial and service facilities can be more easily converted into housing.

Japan—and Tokyo in particular—demonstrates how rules-based planning can unlock housing supply. National zoning is limited to just 12 flexible categories, most of which allow a wide range of uses, keeping development highly responsive to demand. As a result, Tokyo added 500,000 housing units in the past five years and recorded 280,000 housing starts in 2024 alone, preventing chronic undersupply and stabilizing prices

1. Publication planned in February 2026

2. BCG analysis, based on World Bank and OECD data

Exhibit 1 - Japan demonstrates how a pro-supply, rules-based approach to urban development can deliver affordability in some of the world's largest cities

Affordability mechanism	How it supports affordability in Japan	Considerations for other megacenters
 **Centralized, predictable zoning system**	• Zoning is set nationally with only 12 flexible categories, **allowing most uses** (residential, commercial, small-scale industry) **to coexist** • This prevents local vetoes and keeps development responsive to demand	• Shift some zoning powers to regional/national levels to reduce local political bottlenecks • Adopt standard, flexible zoning codes that allow adaptive reuse and incremental densification.
 **By-right permitting & fast approvals**	• **Projects that comply with codes are approved automatically**—no public hearings, political votes, or discretionary reviews • This cuts costs, speeds up delivery, and encourages continuous supply	• Streamline approvals through "by-right" rules and digital permitting • Impose legal time limits on reviews and appeals to reduce uncertainty and speculation-driven price hikes
 **High, consistent housing output**	• Tokyo's housing stock has **expanded by over 500k units across last five years**; in 2024, Tokyo recorded 280k+ new housing starts • **This steady flow prevents chronic undersupply** and **stabilizes prices** even in high-demand areas	• Set explicit annual housing targets tied to infrastructure capacity • Incentivize mid-rise, mixed-income housing in built-up areas; avoid relying solely on megaprojects
 **Semi-public housing providers**	• The Urban Renaissance Agency and local corporations **maintain millions of well-run rental units at moderate prices**, anchoring the market and providing affordable options without stigma	• Expand public or mixed-ownership housing developers • Position them as market stabilizers, not just social-housing providers, offering affordable quality homes to middle-income groups

Urban codes can also significantly enhance local economic opportunity by enabling hyper-localized economies. In Auckland, for example, a radical redesign of the city center—prioritizing walkability and quality public space—led to a 440% increase in consumer spending.

Finally, codes can reduce traffic and sprawl through street classification, design standards, and transit-oriented development (TOD). By concentrating density around transit and shaping daily mobility patterns, cities such as Copenhagen and Curitiba have successfully enhanced both livability and economic vitality..

03

Leverage urban codes as a major lever for advocacy, attractiveness and livability

Urban and design codes are powerful instruments for shaping and communicating a city's story. They contribute directly to placemaking and urban identity—both of which have become strategic tools for attracting and retaining residents. BCG's *Cities of Choice* analysis shows a strong correlation between urban beauty and resident advocacy across 80 global cities: cities that score higher on "urban beauty" consistently enjoy greater resident loyalty.

Exhibit 2 - Integrated Beauty Index – an index derived from Cities of Choice data, based on responses from 30k participants across 78 cities, aimed at generalizing the beauty profile of each city

Questions included:

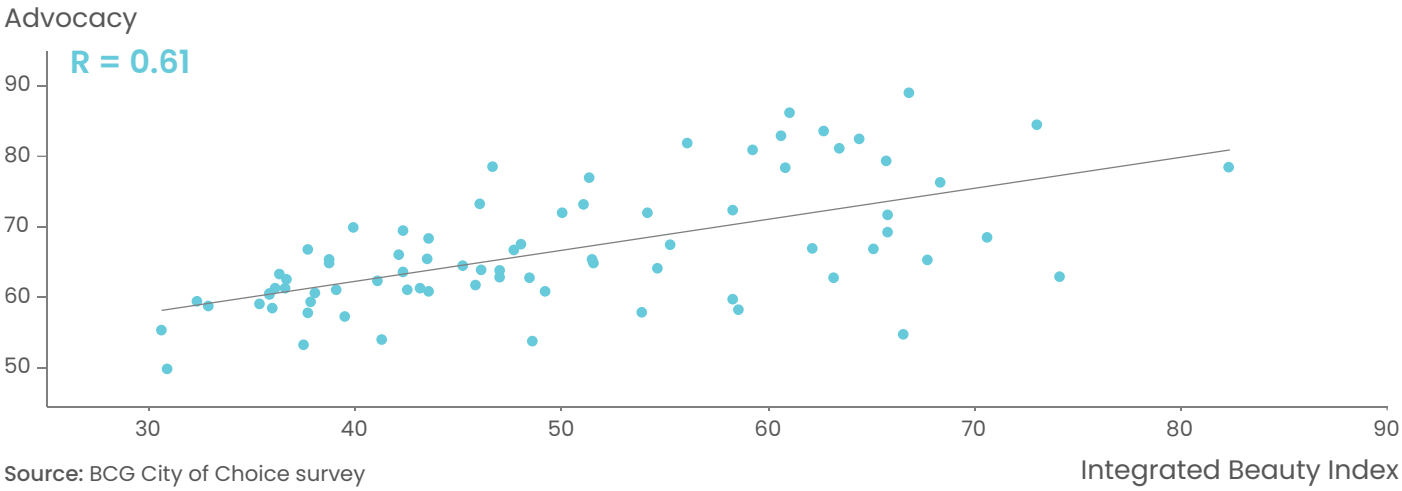
(1) Number of UNESCO cultural heritage sites, units

(2) Number of nominations for prestigious international contemporary architecture awards over the past 10 years

(3) Time spent outdoors each week

(4) Survey question – "I am proud of the history and culture of the city"

Data shows that the beauty of the city has a significant impact on residents' advocacy



Source: BCG City of Choice survey

Design codes can help define a city's character, as illustrated by the iconic transformation of Paris under Baron Georges-Eugène Haussmann:

- Mid-19th century transformation commissioned by Napoleon III
- Aimed to modernize Paris through wide boulevards, infrastructure upgrades, sanitation, and aesthetics
- Combined beautification with public health, circulation, and social order
- Introduced over 80 km of new boulevards through medieval street fabric
- Established uniform building height and façade regulations (Haussmannian architecture)
- Codified façade elements such as balconies, cornices, and rooflines to ensure visual harmony
- Defined street typologies, including widths, tree planting, and sidewalk-to-carriageway proportions
- Introduced an alignment plan system mandating geometry for new streets and buildings
- Represented an early example of integrated urban policy linking engineering, aesthetics, and land use

As a result, Paris became a global icon of urban beauty, coherence, and monumental identity. Haussmannian codes continue to shape the city's visual identity and visitor experience today, while also establishing a distinct "resident journey" and urban lifestyle—the *boulevardier*—that influences how residents and visitors inhabit the city.

Exhibit 3 - City beautification is a core element of Quality of Life and resident advocacy

Cities of Choice Finding	Key takeaway
 • Cities that residents describe as "beautiful," "clean," and "visually pleasing" score higher on subjective well-being and City Advocacy Index — which measures how proud, satisfied, and optimistic people feel about their city • Aesthetic satisfaction (cleanliness, visual coherence) is tied to residents' likelihood to recommend their city and envision a future there.	Beautification efforts (clean public spaces, visual identity, greenery) are essential to **fostering pride, attachment, and mental well-being**
 • Cities with walkable design, shaded paths, and public spaces score better in mobility, comfort, and health-related quality of life indicators • Time spent outdoors and access to parks and green areas are measurable indicators in the ranking system	Beautification elements like shaded sidewalks, green corridors, and parks are not aesthetic luxuries — they enable **healthier lifestyles and active communities**
 • Cities with accessible and inviting public spaces report higher scores in social capital, including: feeling of belonging to a community, frequency of friend interactions, trust in fellow citizens	Beautiful, inclusive public spaces foster informal social gatherings, **trust, and safer, more cohesive communities**
 • Beautification-linked indicators (like the number of parks, cultural events, and entertainment venues) correlate with higher foot traffic, retail vitality, tourism appeal	Cities that invest in visually and experientially attractive environments **attract visitors, boost business, and build destination value**

Depending on a city's archetype, codes can similarly be used to create distinctive character and functional benefits through the built environment.

Exhibit 4 - Four main archetypes of beautification typically exist

Archetype 1:
Historic cities

Rome

- The city's planning subtly harmonizes **ancient monuments with contemporary life**, turning the entire urban landscape into an **immersive museum**
- Rome layers **of history** are not just **preserved** but **actively lived in**

Archetype 2:
Garden cities

Singapore

- Singapore exemplifies **sustainable urban planning** and environmental innovation
- In Singapore, **nature is not an afterthought** but a structural element that strengthens the relationship between city and nature

Archetype 3:
Design cities

Shenzhen

- Through **visionary** initiatives, Shenzhen fuses **technology** and **aesthetics**
- The city embodies a living canvas, where **design innovation** meets **artistic expression** in everyday life

Archetype 4:
Functional cities

NYC

- NYC planning ethos ties **beautification directly to function**
- NYC ensures **consistent** and **scalable** improvements across its **diverse** boroughs, making public spaces not just **efficient** but genuinely **livable**

As a lever to enhance livability, urban codes are efficient in multiple ways—through walkability, greenery, appropriate density, and access to amenities. The concept of the 15-minute city has become a new benchmark for accessibility and walkable urban living. Cities that have embedded this principle into their codes have demonstrated tangible success. Paris, for instance, improved its mobility performance in the Cities of Choice ranking after codifying 15-minute city standards.

Codes that prioritize public space further strengthen livability and resident satisfaction by fostering social interaction and community cohesion. Barcelona's superblocks offer a compelling example:

- **Traffic and noise:** Vehicle traffic within superblocks dropped sharply, with noise levels falling below WHO health thresholds in many areas
- **Air quality:** Modeled reductions in NO_2 and particulate exposure, particularly where superblocks are implemented as a network
- **Public space and social use:** Former roadways transformed into playgrounds, plazas, and café terraces, increasing social interaction and perceived safety

04

Ensure urban policy allows codes to adapt to the speed of change

A defining competitive advantage for cities today is the speed of change. Cities that can adapt quickly are better positioned to attract talent and capital at scale—and resident advocacy is strongly correlated with this adaptability.

While the built environment is inherently slow to change (outside greenfield development), urban codes can introduce flexibility that enables governments to respond to evolving resident and visitor needs. Codes can support flexible infrastructure—designed to serve multiple functions, adapt over time, and integrate across sectors such as transport, energy, water, and public space.

Unlike traditional single-purpose infrastructure, flexible infrastructure is multi-functional, modular, and responsive to environmental conditions, technological shifts, and community needs. It is a street that doubles as a stormwater solution; a school that functions as a community hub; a parking lot that can transform into a market or festival space. Ultimately, it is about designing systems that evolve economically, socially, and environmentally.

05

The “So What” for GCC cities

Existing codes have shaped several of the challenges faced by GCC cities today, including traffic congestion and urban sprawl (as seen in cities such as Dubai and Riyadh). But now the unprecedented speed and scale of new construction (e.g. greenfield districts and cities, mega projects) as well as the current urban policy initiatives (such as new architectural guidelines in KSA or livability efforts and the new Plan Capital in Abu Dhabi etc) present a unique opportunity to address these challenges while shaping strong urban identities that enhance resident advocacy and experience in both existing and new cities and developments.

Greenfields are often better positioned than brownfield or infill areas to embed new and progressive urban codes. Starting from scratch allows planners to integrate contemporary thinking of mixed use, walkability, climate-responsive design, new mobility, and digital infrastructure without being constrained by legacy regulations or existing physical fabric. The objective of urban authorities is to ensure long-term urban quality (vs short-term commercial effect) and citywide identity coherence.

Existing cities and brownfield areas have a more limited degree of freedom but can direct codes to adaptive reuse and rejuvenation, aiming at strategic densification and land efficiency. In this case, urban authorities need to mitigate risks of fragmented ownership and delivery complexity.

For both green- and brownfield, careful and well-orchestrated codes implementation is key to ensure success and achieve the expected result: engage communities into co-creation of public spaces and develop inspiring narrative around change, prepare and motivate professionals and developers with awareness, training, certification and smooth integration into permitting process.

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