SMARTCITY
EXPO WORLD CONGRESS

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UFV Universidad Francisco de Vitoria

WorldWide Observatory for Attractive Cities

2026 Edition

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Foreword

I want to thank Jaime Mateo López and Juan Cisneros Amengual, who helped refresh the data model and format this document, both students at Universidad Francisco de Vitoria. (Madrid)

To my University, Francisco de Vitoria (Madrid) for supporting this research.

To Fira Barcelona, SmartCityExpo WW Congress for inspiring this challenge.

To my beloved cities, magical places for human social development and solid foundations for mankind's future dreams.

Note to reader: If you had the chance to read any of the previous editions of the WW Observatory for Attractive Cities: 2020 (handle), 2021 (handle), 2022 (handle), 2023 (handle), 2024 (handle) or 2025 (handle), then you can skip the model description and go directly to chapter 6, City Attractiveness Ranking 2026

All related info at Web: http://attractivecities.com

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1.Introduction. Cities Attractiveness Model

1.1 Why cities Attractiveness. The competition for talent

Cities are the epicenter of human activity, the central nervous system of economic growth, social interaction and innovation. In the current context of relatively complete global stability (both in economy and peace), cities are the hotbed for creativity and human development. We live, indisputably, at the best moment in the history of mankind. Technology allows us to increasingly dominate our environment and enjoy a longer and more comfortable life, yet we must not make an idol of it: it's an enabler and catalyzer, not a destiny.

The main challenge for modern cities is how to become A*ttractive* enough to both retain brilliant brains and draw talented citizens and investors. This will be fundamental for cities that want to play a role in the 4th Industrial Revolution. All the most prosperous cities have undergone a profound social transformation due to the past industrial revolutions. A surge of new disruptive technology affecting the way we work, manufacture, trade, and develop human activity has attracted talented citizens. In addition, this new technology fosters the creation of highly qualified and well-paid jobs, which then, pushes any given city's attractiveness to new heights. With rampant new AI technology in place and talented people developing it, we must provide them with a place to connect, engage and encounter each other: THE CITY.

Talent is the key to the city's economic development. Without sufficient talent, the city is not innovative, it does not generate enough wealth or employment, it is not a leader in powerful new initiatives. Even worse, the talent attraction has a positive acceleration feedback: talent calls talent but also the opposite, the lack of attractiveness makes talent migrate, so the chances of being attractive are reduced. It is therefore a fierce competition to achieve this resource: talented citizens.

One of the main factors in making this happen is the exercise of tolerance, the door opening to anyone who demonstrates talent and a willingness to contribute to the city's development while respecting local laws and customs. Thus, we can say that the recipe for prosperity of most advanced cities has been determined by the rule of the 3 T's: Technology, Talent and Tolerance (Florida, 2007), with technology being the lynchpin of each industrial revolution and its main enabler.

Western cities need additional human capital. Eastern and emerging countries are working on building up their own human capital (their young populations) and retaining it to serve as the cornerstone of their prosperity.

The main aim of this research is to understand what is being done and what is needed to make a city the most attractive for these talented citizens. There are many partial studies about employment, safety, happiness, expat treatment, economy, cost of living, etc. but none has attempted to give talented citizens an integrated vision of this new world of cities. Let's try to cover that need.

1.2 WHAT. SCOPE

The main objective here is to answer how, within a 4th Industrial Revolution framework, the city is competing to become more attractive for talent, and furthermore to define which elements enhance attractiveness, and what options exist for cities to do so. The practical consequences are twofold:

1.- Help citizens choose the best city in the world for them to realize their full potential, their goals as a citizen and as a person, and make the greatest possible contribution to society.

2.- Advise mayors and city managers on how to create the most attractive city possible in order to retain and attract talented citizens, and furthermore build a more prosperous, innovative, fair, inclusive and human city. Help them design, prioritize and implement a:

- ✓ Long-term Transformational Plan (with main focus on physical conditions and social trends)
- ✓ Short/Mid-term Improvement/Integrated Plan (with main focus on citizen needs and leveraging technology for a digital transformation)

1.3. Methodology. City Attractiveness = City Magnetism x City Profitability

By how cities are prepared and presented to talented citizens and investors, and on the other side, how citizens decide whether to move to another city or not, we can conclude that we are in front of a similar human decision process to a marriage or to a purchase. It looks like a marriage because there is a certain compromise between the parties, some love is necessary, or at least attraction, and it is not a decision that lasts a short time. It is not exactly a marriage because one part, the city, simply offer the conditions for the talent to stay or come, but without talent, city will languish then disappear. It is more like a purchase. The talented citizen “buys in” to live in a city and contribute to its economic and human development, and the city “sells” its attractions, advantages, and even offers special advantages, as incentives. There is no economic transaction, although it is clear that a price is paid due to differences in purchasing capacity (net-purchasing power) for the same citizen with the same kind of job but done in different cities. We have, therefore, that it is a human decision process among many alternatives, where mercantilist/trading benefits are involved, but also aesthetic and ethical questions about the possible destination cities. Do I like that city? And what about that city’s lifestyle? These seem to be previous questions to those related to terms & conditions (wage, safety, taxes, environmental care, services.)

Like any human decision involving a compromise between two parties, the motivation to settle in a city due to its attractiveness responds to two main drivers: the emotional and the rational. (Tybout & Calder, 2010) We will call the emotional component City Magnetism (‘I like it, I feel comfortable, it enriches me, it inspires me’); and we will label the rational component City Profitability (‘it is a good deal, with good city services, well-being is high, cost of living is affordable, conditions match my circumstances, preferences and lifestyle’). In the rational sphere there are no emotions, only purely functional and economic facts. But humans are emotional beings, so the emotional component is very relevant, often the most.

OUR DEFINED 7 POSTULATES:

- Cities are taking the key role as Centers for Human Development. There is a hidden, bloodless, but **fierce competition to attract the creative class** people, those who will rule the Innovation led by 4th Industrial Revolution.

- **City Prosperity Recipe = 3T's (Technology, Talent, Tolerance)**

- 4th Industrial Revolution is about Artificial Intelligence/Robotics. **Artificial Intelligence (AI)** is made of: **Massive Data** (from IoT world, social networks) + **Computing Power** (from large Cloud Datacenters) + **Algorithms (made by Talent)**. No single city leads this revolution, but no one wants to be left behind, so competition for talented citizens is even more crucial.

- **SmartCities** approach uses technology to transform/improve Cities and **makes them more attractive for talented citizens.**

- **City Attractiveness = City Magnetism x City Profitability (yield)**
  A human decision, like a purchase. Left brain, emotional component (Magnetism) + Right brain, rational component (Profitability)

- **City Magnetism = Conditions that make you like/love the City**. Mostly permanent, slowly evolving conditions that impact people emotionally. To significantly change them → invest in a 10+y City Transformation Plan

- **City Profitability (Yield) = Services that you receive from the City compared to the Cost associated with Living in that City = CITIZENSHIP CONTRACT**. Cities invest on a 2+y Improvement / Quick Transformation Plan (Mostly Virtual)

2. City Magnetism

It's the magnetic part that attracts us to a specific city. In essence, a city is a sum of the collective past and present experiences (Marias, Ridruejo, Chueca, 1983) that make up the city's past identity and present dynamism. This emotional component has a lot to do with our tastes, preferences and feelings, and must match up perfectly with the city's aesthetic and ethical facets.

If we humanize the concept of cities, as a live ecosystem, clearly this emotional component would be the city's soul, while the rational part would be its physical aspects, its body. Cities are not just places and spaces that you can live in, they are living entities with emotional components, they have a 'soul' (Alcalde, 2017). This concept of the soul is part of their DNA, a series of emotional, intangible, and qualitative elements that make them stand out and distinguish them from the rest. It has to do with the environment and, above all, with the people who live there and their lifestyle. The opposite of a Magnetic city is the 'Generic' city (Koolhaas, 1997). An empty city, without history, superficial, sedated, as if it were drugged and numb. A city where the street has died because it is not walked and life happens vertically or in shacks, where the edges are marks of disruption (vertical – horizontal) leaving no opportunity for meeting up, for creative density. A city of fractal repetition where everything that is not strictly useful or functional has no place. A city whose center features formally directed architecture and where the wealth is concentrated leaving a diffuse wide stain of low-income areas around it, accentuating inequality.

2.1 Components of City Magnetism.

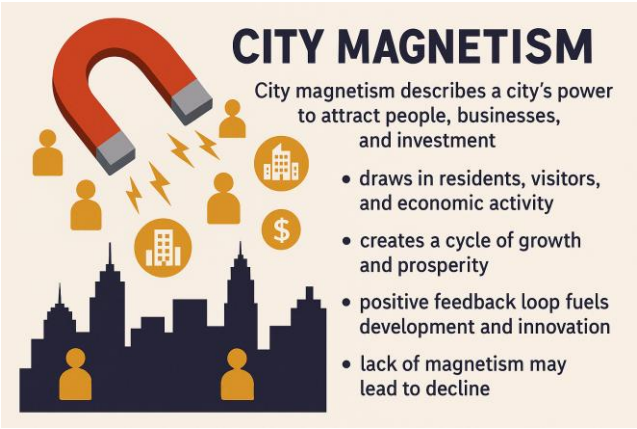
City Magnetism can be assessed through some preconditions and three main city components which are driven by the permanent creation of living history.

PreConditions: Language, Landscape, Religion. A main spoken language or the ability to be understood and talk to locals is a major primary enabler/blocker. Landscape (seashore, mountains, both) is also a strong personal preference. And finally, our personal divine dimension, our own confessions need to match or tolerate those found (Religions) on a local level.

Historical methodology can offer us an accurate analysis of any hypothesis about a city, because in itself, it is a repository of history. (Rossi, 1978). Cities are living history. The city must respect and balance the preservation and retention of its historical heritage with modern development. (Pinto, 2009). Therefore, City Magnetism is the result of human action, and covers three moments in time: Past, Present and Future, in an ascending line during progress and prosperity and a descending line during destruction and decline, following the human cycles in a perfect and infinite helix. We could say that to the city "nothing human is alien". (Terence, 163 BC).

Then, we can conclude that a model for City Magnetism can be approached by studying these three major areas:

- Identity (Past)
- Dynamism (Present)
- Strategy (Future)



City Identity (Past): The past marks, defines and writes the city identity in stone. It is like its DNA, the addition of collective contributions from its former dwellers, all adding parts of that DNA, evolving, constantly recombining itself. It can evolve, albeit slowly. It can be transformed, but through a long, complex process.

A city's identity is thus defined by those elements that make up its essence and that have been defined throughout its history, such as its culture, customs, gastronomy, and type of society and government. Also fixed determinants such as geographic location, climate and environment, green spaces, density or the risk of natural disasters come into play. Additionally, a city has to nurture its reputation (Reputation Institute, 2017), its external or projected image, its branding, through the impacts it makes on media, often by organizing cultural or sporting events.

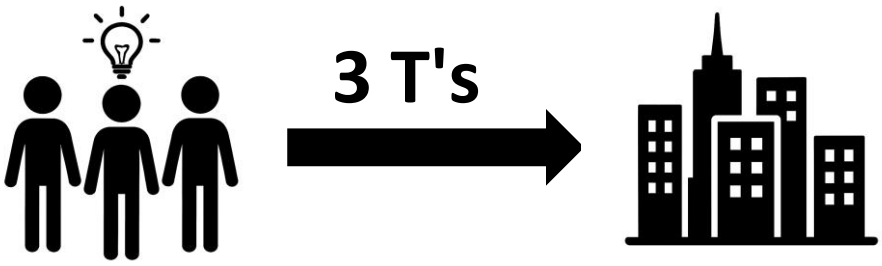
A city needs its own projected image, an advertising claim that is highly imageable (apparent, readable, visible). The goal is to become a city with a high chance of evoking a strong image in an external observer (Lynch, 1960). To approximate a model of measurable variables for a city's projected image, we turn to the different specialization areas that UNESCO attributes to a creative city: "Crafts & Folk Art, Design, Film, Gastronomy, Literature, Music and Media Arts" (UNESCO Creative Cities, 2019). All those areas are studied and included into City Branding component.

City Dynamism (Present): *"What is the City but the people?"* (Shakespeare, 1609) This aspect describes a city's psychology and ethics, how people make a living, and what the relationships among its inhabitants are like… The present represents City Dynamism. If identity lays the foundations of Magnetism, Dynamism marks the actions. A city attracts me because of its identity. When I arrive it delights me, welcomes me, motivates me, encourages me, moves me, helps me, or it does just the opposite all based on its Dynamism or lack thereof. The identity of a city is like a travel agent's brochure; Dynamism is the excursions that I can take at the destination.

We divide City Dynamism into four different indicators. First, competitiveness: those elements that measure the action, relationships, city creativity and motion, those elements which turn it into a social and economic hotbed creating complex interrelations of human development. Second, we measure how a city treats those who come, the expatriate, how easy or difficult social integration is in that city. Third, we also measure the city's ethical principles and social equity, inclusiveness and justice. And fourth, we evaluate equality.

City Strategy (Future): How can the future become a driver for a city's attractiveness? What do we expect from a city with a future? We expect it to have a solid plan (a SmartCity Plan), which includes strategies to cope with city challenges.

What makes that plan work? The rule of city prosperity, the 3 T's (Technology, Talent, Tolerance). We need investment in innovation as a fundamental and permanent driver and, of course, talent (human capital), too.



City Identity (Past)

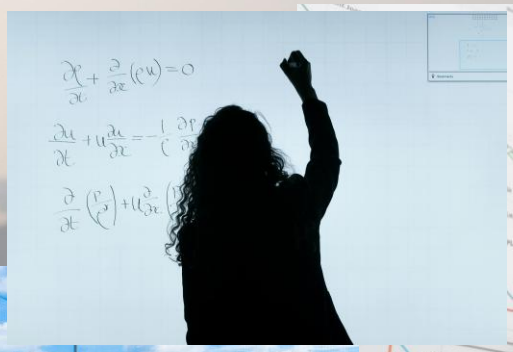
- History
- Govern Basics
- Reputation
- GeoLocation Conditions
  - Space/Density
  - Climate
  - GeoRisk
  - GeoEconomics
- Food/Gastronomy
- Branding. External Image

City Dynamism (Present)

- Competitiveness
- Quality of Life
- Expats Experience
- Ethics. Well-being
- Equality

City Strategy (Future)

- Human Capital
- SmartCity Plan
- Innovation



3. City Profitability

The world is a marketplace of cities where citizens, depending on their preferences at that moment, decide to 'buy' a city and move there to live, and in this light, it makes sense that they give more value to employability when leaving the University, or to social services when they reach retirement age. Priorities vary based on their family dependencies (children or seniors) as well.

City Profitability is associated with the concept of 'is moving there a good deal to me?'. This is the non-emotional part, more related to a city's pure merits (economic and performance indicators).

City Profitability consists of a city performance component (functions, services, variable elements that a city provides to the citizens and that are tangible and valuable) and an economic component (citizens' ability to acquire things or the net purchasing power that a citizen will attain in that city compared to others). It is, in short, a deal. So, City Profitability (yield) is made up of the combination of services offered by a city and the cost of living in that city. We name this implicit, virtual agreement between you and your city the Citizenship Contract.

3.1 Citizenship Contract

Modern cities increasingly resemble Greek city-states. Despite the differences that social achievements have brought to our society during these 25 centuries, cities want to and must redefine the terms of their agreement with their citizens: the citizenship contract. It is a virtual contract that we all implicitly hold with our city. It is the value proposition that our city offers both to us and to the possible talent who wants to become established in our city. It is the list of gives and takes that our city has, like a billboard of city's offerings. It is a contract because the city offers us a series of services, benefits and development opportunities in competition with other cities in the world, in exchange for our contribution to the city's common project. This contribution has many facets, not only our taxes, but our generation of wealth, ideas, creativity, competitiveness, values, experience, co-creation, city development and drive to achieve its future goals. This is what millennials are evaluating now, and what local talented citizens weigh before deciding to emigrate in search of better opportunities.

3.2 Components of City Profitability.

To define the citizenship contract, we must detail the series of benefits and services the city offers us. This is the list of performance indicators to evaluate in which we group all the quantifiable services that a city can offer us into 10 areas:

- DIGITAL GOVERNMENT: A democratic, efficient, transparent, participatory, digitalized city government. Digital government as a service.
- EDUCATION: Lifelong training. Quality business schools, professional training and development.
- EMPLOYABILITY: The demand for talent. Easiness to find a job.
- CONNECTIVITY: Internet infrastructure. 4G / 5G deployment. Mobile Connectivity
- HEALTHCARE / SOCIAL SERVICES
- ENVIRONMENTAL SUSTAINABILITY: Water and energy efficiency. Air quality. Carbon emissions reduction, carbon neutral plans. Circular city.
- CULTURE-TOURISM: Culture as a city service, not traditions or emotions, but valuable services.
- URBAN MOBILITY: Traffic, public transportation. Mobility as a service. Time in traffic.
- URBAN PLANNING: Urbanism as a city service.
- SAFETY: Physical and virtual safety

Then, we have to weigh these aspects against the cost of living in that city, or, in other words, the final net purchasing power (amount of things that I could buy with my final, after-tax income). Therefore, it is about comparing (multiplying) what I get from the city with what I get from my professional activity. The higher the result, the more profitable it will be for me to move to live in that city.

4. City Attractiveness Model

4.1 Cities Selection Criteria

We decided to increase our initial 2020 Analysis (made of 140 Cities), up to the world's top 175 most attractive cities according to international studies in a model made up of more than 100 indicators.

City selection criteria: Top cities in the Quality of Living Ranking (Mercer, 2019) and IESE's Cities in Motion (Berrone & Ricard, 2020) and cities scoring over 50 (no personal risk or severe living restrictions) on the Global Liveability Index (The Economist, 2021). The first two are superior quality reports featuring a wealth of details and indicators, coming from very well-known, highly reputable sources, while the Liveability Index's minimal threshold corresponds to a basic fact: nobody wants to go and live in a city where their life will be threatened, or basic living conditions are severely restricted.

4.2 Set of Indicators.

30 Indicators for Magnetism-Identity, 17 for Magnetism-Dynamism, 23 for Magnetism-Strategy, totalizing 70 indicators for City Magnetism, selected from international bodies, previously published key studies/analysis, and our own work are used for this research. Each of the 175 cities selected is also analyzed with data taken from city websites and their published SmartCity plans.

34 indicators make up the model for City Profitability (selected from international bodies, already published studies/analysis, and the author's own work).

The total number of evaluated indicators is 104, but many of them include a large number of subindicators, raising the total number of analyzed city dimensions to around 500. The selection of indicators to use follows the metanalysis methodology: researching all available indexes, then choosing those best matching previous criteria while avoiding biases. See the full list of used indicators and components in Figure 1a,1b.

Our objective is not to create yet another ranking of cities. Cities hate rankings, unless they come out on top. As the concept of attractiveness is quite personal, the most attractive city for me may not be as attractive for another person depending on the different scale of values we use to weigh a city's performance indicators, different aesthetic, personal preferences (mountains or seashore or both, spoken languages, religion...), and personal status (family dependencies, children, elder people in their care…). The model we present allows for comparisons between cities in the same geo cluster, and obtains each city's "attractiveness radiography" which helps prioritize areas that are in need of improvement, and also provides a list of cities that best fit a particular citizen's values and preferences.

Area	Subarea	Class	Indicator	Subindicator	Entity
Magnetism	Identity	History. Culture	Age	Foundation	Wikipedia
			UNESCO	World Heritage	UNESCO
			Top Museums	Most visited	Wikipedia
		Government Basics	Democracy Index		World Population REVIEW
			Human Development Index		UNDP
			Global Peace Index		Vision of Humanity
		Reputation	Contribution to World	The Good Country Index	Anholt & Co
			Finantial Reputation	Brand Finance Global City Index	Brand Finance
		Space. Density	% Natural Space	Better Life Index	Husqvarna
			Density (inh/km2)		Demographia
		Climate	Avge. Temperature Desviation	Temp + Gradient	Climate-Data.org, Climatemps
			Avge. Precipitation Desviation	Precipitation + Gradient	Climate-Data.org, Climatemps
			Avge. Daily Sunshine	Hours	Climate-Data.org, Climatemps
		Geo Risk	Natural Disaster Risk		World Risk Index
		GeoEconomics	GDP Proximity	%WW GDP <2,5h flight	IMF
		Gastronomy	Food Security Index		The Economist
			Cost Food	Min 2400 cal	Numbeo
			Guru Restaurant	#Rest/Minh	Guru Restaurant
			Michelin Guide and Guru	#Rest/Minh	Via Michelin
		Branding. External Image	Music	Number (Breadth) & Depth (top 3 downloads)	Own work (Wikipedia and Youtube)
			Movies	Own work. Movie-locations, Scene locations	Wikipedia. Activetimes.
			Street ART	Artwork/10k Inh	Street Art Cities
			CITY BLOGGERS	SM Reach	Brand24
			Sports	Soccer Basketball Other Sports Events, Marathons	Football Database NBA Topendsports
			Main Events	Olympics	Olympics org
				Universal Expos	Bureau International des Expositions
				Main Cultural Events	Day Zero Project
	Dynamism	Competitiveness	Global Competitivenes	Economic	IMD
			Global Talent Competitiveness	Talent	IMD
		Development. Quality of Life.	Cities in Motion	Cities facing Challenges	IESE Cities Motion
			Quality of life	Quality of life	Numbeo
			World Best Cities	Cities Marketing	BestCities.Org
		Expat Social Experience	Quality of Life for EXPATS	Best Cities for Expats	InterNations
			NOMADS	Digital NOMAD Index	Global Citizen Solutions
		Ethics. Well-being	Happiness	Happy Cities	UN + Happy Cities
			Suicide	Suicide rate by country	World population review
			World Giving Score	CAF	World Giving Report
			Civic Engagement		World Bank
			Work-Life Balance		The Blue Ground
		Equality	GINI Index	Inequality	WorldBank
			Gender	Economic Empowerment of women	UN WOMEN
				Global Gender Gap Index	WE FORUM
				Leadership opportunities for women	WE FORUM
			Tolerance	Tolerance Minorities	FRAGILE STATES INDEX
				Tolerance Immigrants	WORLD POPULATION REVIEW
			Poverty	Pop < 8,3$/d	World Bank
	Strategy	Human Capital	Population Age Average Per Country		World Population Review
			Ranking Human Capital	Cities in Motion	IESE
		Smart Cities Plan	Plan Smart Cities	18 Areas	Own Work + IMD + AI INT CITIES
		Innovation	R&D (% GDP)		StatRanker
			Global AI		Oxford Insights
			Global Innovation Index	World Population Review	WORLD POPULATION REVIEW

ADDITIONAL PRE-CONDITIONS:	Landscapes		Own Work
	Language		Infoplease
	Religion		Own Work

Figure 1a. City Attractiveness Indicators. Magnetism. Source: Author

Profitability	Services	Digital Government	Digitalization of Government	eGovernment Survey	OECD
			eParticipation Index	eGovernment Survey	United Nations
		Education. LifeLong Training	University Rankings in the subject Business and Economics		TimesHigherEducation
			Employee Development		Global Talent Competiveness
		Employability	LinkedIn Talent Hiring Demand	Talent Insights flow / Areas	LinkedIN
			Employability	Employment	WORLD BANK GROUP
		Connected City	MOBILE	Mobile Connectivity index	GSMA
			Internet Speed	Broadband Speed	WORLD POPULATION REVIEW
			ICT Infraestructure		WORLD POPULATION REVIEW
		Health/Social SVS	Social Expenditure (% GDP)		OECD
			Life Expectancy	WHO	World Health Organization
			Physicians density	per 10.000 inh	World Health Organization
			Public Health Expenditure per Capita		World Bank
			Healthy Cities Index		Healthy Cities
		Environmental Sustainability	Carbon Neutrality Plan	+ A-List inclusion	Own Work + CDP
			Environmental Performance		IESE Cities Motion
			The Green Future Index		MIT
			Climate Change Performance Index	WEP	World population review
		Culture-Tourism	Culture Creative Jobs %		World Cities Culture Jobs OECD. Eurostat
			City Destination		FORBES
		Urban Mobility	Traffic Index		NUMBEO
			Time in Traffic	Time in rush hour/y	INRIX
			Congestion Level (%)		TOMTOM
		Urban Planning	Urban Planning		IESE Cities Motion
		Safety	Safe Cities Index		GlobalResidenceIndex
			Safest Cities		CEO World Magazine
			Crime by City		Numbeo
	Cost Of Living. Net Purchase Power	Net Real Income	Avg Wages/month	SINGLE, No CHILD	UNECE, ILOSTAT, OECD
			Direct Tax + Social Contributions		OECD
			Indirect Tax		Sales Tax Institute
		Cost Of Life	Purchase Power Parity Plus Housing Rent (NY=1)		Numbeo

Figure 1b. City Attractiveness Indicators. Profitability. Source: Author

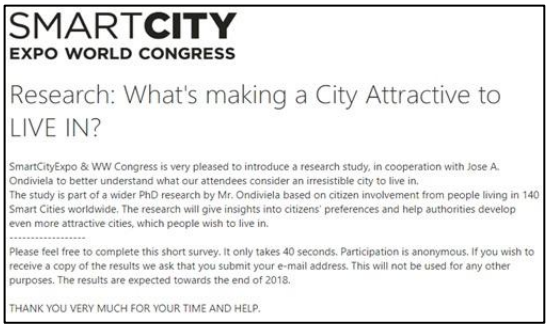
Main data sources updates vs 2025 Edition

Added Indicators:

- Magnetism.Identity. Government Basics. Human Development Index
- Magnetism.Identity. Government Basics. Global Peace Index
- Magnetism. Dynamism. Expat Social Experience. NOMADS
- Magnetism. Dynamism. Ethics. Well-being. Suicide
- Profitability.Services. Health/Social SVS. Healthy Cities Index
- Profitability.Services. Urban Mobility. Congestion Level (%)

Changed sources at:

- Magnetism.Identity. Government Basics. Democracy Index
- Magnetism. Identity. % Natural Space.
- Magnetism. Identity. GeoEconomics. GDP Proximity
- Magnetism.Dynamism.Ethics Well-being. Happiness
- Magnetism.Dynamism.Ethics Well-being. World Giving Score.
- Magnetism.Dynamism.Equality. Gender. Economic Empowerment of women
- Magnetism.Strategy. Smart Cities Plan. Plan Smart Cities
- Magnetism. Strategy. Innovation. R&D (% GDP)
- Magnetism. Strategy. Innovation. Global AI
- Magnetism. Strategy. Innovation. Global Innovation Index
- Profitability.Services. Digital Government. Digitalization of Government
- Profitability.Services. Education. LifeLong Training. University Rankings in the subject Business and Economics
- Profitability.Services. Education. LifeLong Training. Employee Development
- Profitability.Services. Health/Social SVS. Physicians density
- Profitability.Services. Environmental Sustainability. Environmental Performance
- Profitability.Services. Environmental Sustainability. Climate Change Performance Index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Research: What's making a City Attractive to LIVE IN?

SmartCityExpo & WW Congress is very pleased to introduce a research study, in cooperation with Jose A. Ondiviela to better understand what our attendees consider an irresistible city to live in.
The study is part of a wider PhD research by Mr. Ondiviela based on citizen involvement from people living in 140 Smart Cities worldwide. The research will give insights into citizens' preferences and help authorities develop even more attractive cities, which people wish to live in.

Please feel free to complete this short survey. It only takes 40 seconds. Participation is anonymous. If you wish to receive a copy of the results we ask that you submit your e-mail address. This will not be used for any other purposes. The results are expected towards the end of 2018.

THANK YOU VERY MUCH FOR YOUR TIME AND HELP.

5. City Attractiveness Research

5.1. Surveys

To prove that the model works and that all its components are relevant, we carried out three surveys at SmartCities events, so our audience brought twofold advantages: they are quite familiar with the concept of city performance, and we can consider them all as talented citizens.

•Survey of 4,500 participants at an event (NordicEdge, 2018), Stavanger (Norway). Sep2018 attendees. The largest SmartCities event in the Nordic countries.

•Survey of 21,334 participants (SmartCity Expo & WW Congress, 2024), Barcelona (Spain). Nov2018 attendees, updated at Dec2024 to 25.771 attendees. The largest SmartCities event in the world. Due to the large response (n=1550), the data obtained will be used to fine tune weights on Magnetism and Performance for global analytics and main ranking reference / chapter 6.1 Honors Board.

5.2 Surveys results. Comparing 2018 vs 2024 surveys.

On audience, both surveys are very similar. Our target average respondent-age was 43 years old, half of them with children (51%) and a quarter of them with elder people in their care (25%). It is an unbalanced gender sample with 67% male, however that is consistent with the very male-driven technology market.

On Magnetism: Identity (past) rules, then come Dynamism (present) and then Strategy (future). Identity and Dynamism are significantly more important than Strategy, confirming the trend that a city's future and potential are less valued than its present facts or its experience gained from Identity. This result is easily associated with the Southern European lifestyle, which is most interested in the present moment, with a loving eye for the past and less emphasis on the future. However, the differences are not so large as to consider Strategy (future) as irrelevant seeing as this survey was world-wide in nature. Identity (past) becomes more and more appreciated as people get older (the over-50 crowd). And in terms of gender, men and women agree on Magnetism, which means they have essentially the same preferences for aesthetics, education and customs.

On Profitability. In city services (see figure 2), we can very clearly identify three zones: high (positions 1 through 4) scoring more than 7.70, then mid (positions 5 & 6), then low (7 through 10). There are appreciable changes among the different age ranges studied, but these services always fall within these general zones. All 10 areas studied are relevant, as all scored a minimum of 3.42 out of 5 on average in our original survey on importance, meaning that we can say that none are irrelevant, and none have a much higher score when compared to the rest.

When comparing 2018 vs 2024 results we can very clearly appreciate two significant movements: Safety moving from 4 to top1 position, showing the relevance it is reaching due to current social unstability in many cities; Environmental dropping from 3 to 6 showing the de-hype of the Green City concept (mainly after the Trump recent decisions). Urban Mobility comes from top to 3 but remains very key component (I would say essential). As such, we have named it the 'city bloodstream'. Since we define a city as a point in space/time where people meet with and encounter each other, and this service makes that possible, we are not surprised that it is the most appreciated. Health/SocSVS, maintains second position as it keeps its relevance along time. Safety is the top factor for those over 60. After those come the Education and Employability group, moving slightly up due to Environmental drop. In any case, Education jumps up to position 3 for younger citizens, which seems reasonable. Employability falls to the bottom position for those aged more than 60, as they are about to retire. Urban Planning, Governance, Cultural Services, and Connected City occupy the lowest positions. I was personally expecting to see Connected City finish higher; maybe the audience did not understand the concept and the disruptive implications that 5G/6G will bring, or maybe they consider this as a static, obvious utility service like water or energy, and see little to no difference among cities. Governance and Urban Planning are not perceived as star city services, but rather as business as usual, as regular tasks that must be guaranteed, not as brilliant services that citizens perceive as new, innovative or disruptive.

CITY SERVICES -	2018 SURVEY			
SCALE OF VALUES	RK	1-10	Over 100	INPUT
URBAN MOBILITY / TRANSP	1	10,00	13,54	4,44
SOCSERVICES / HEALTH	2	9,04	12,66	4,35
ENV. SUSTAINABILITY	3	8,95	12,57	4,34
SAFETY (PHYSICAL/VIRTUAL)	4	8,37	12,04	4,28
EDUCATION	5	7,67	11,40	4,21
EMPLOYABILITY	6	7,11	10,87	4,16
URBAN PLANNING	7	4,78	8,72	3,93
GOVERNANCE	8	2,85	6,95	3,74
CONNECTED CITY	9	1,83	6,01	3,64
CULTURAL SVS / TOURISM	10	1,00	5,24	3,56

CITY SERVICES -	2024 SURVEY			
SCALE OF VALUES	RK	1-10	Over 100	INPUT
SAFETY (PHYSICAL/VIRTUAL)	1	10,00	11,13	4,57
SOCSERVICES / HEALTH	2	9,57	11,00	4,52
URBAN MOBILITY / TRANSP	3	8,94	10,80	4,44
EDUCATION	4	7,73	10,42	4,28
EMPLOYABILITY	5	7,34	10,30	4,23
ENV. SUSTAINABILITY	6	6,87	10,16	4,17
URBAN PLANNING	7	5,66	9,78	4,02
GOVERNANCE	8	3,93	9,24	3,79
CULTURAL SVS / TOURISM	9	2,68	8,85	3,63
CONNECTED CITY	10	1,00	8,32	3,42

Figure 2. City Performance/Services Ranking for SmartCityExpo Attendees. Source: Author

By gender, we find almost the same rankings with only a few differences near the top, for instance, women position Health/SocSVS at number 1 and men situate Safety. Those with children give more consideration to EnvSustainability (from 6 to 5) (thinking about the planet we leave for them, perhaps); those without follow the average. People with someone elderly in their care put Health/Social Svs, Safety and Mobility on top, as expected, because those are the three areas to improve in any age-friendly city. Finally, and sadly, Culture/Tourism is moving from bottom, one position up. While this is promising, it is clearly a major pending issue for most of our cities: how to serve as a kind of permanent university for citizens by constantly offering, incentivizing and promoting cultural services. A more skilled society is always a more prosperous one, and the opposite is true, too.

5.3 Model Reliability

- Medium on City Magnetism. High on City Profitability.
- Again, plan is not to create another Cities ranking. A personal tool (App) is provided at website, so the main topics will be weighted based on individual citizen input. Results will vary from citizen-to-citizen preferences or different life status (age, family dependents).
- Model obtained from the three surveys conducted with: 95% Confidence, <2% Error

6.Cities By Numbers. Benchmarked Cities.

6.1 City Attractiveness Ranking 2026

If we apply these survey scores to our model, (see figure 3 with full list of top175 cities) we find the Top 30 positions lead by cities from UAE (Abu Dhabi, Dubai), Nordics (Norway, Denmark), Central Europe (Germany, Netherlands, Luxemburg, main cities from Switzerland, Austria, UK, Spain), Canada (Toronto, Montreal), and AUS with 4 cities. Spanish Cities are maintaining with a slight decline very good positions (Madrid at 28 till Bilbao at 75). To note the recovery from FIN (23-52), SWE (17-31) and UK (4-37-74), . Decline from JPN after the Universal Expo to (38-69). Welcome to top positions to Singapore (29) and Doha (12). Following this area, we immediately find the other 4 Asian tigers from 40 to 59. USA cities are not present till positions 54 (NYC) and most mainly found at 66-93 with same positions vs 2025. Southern Europe (FR, ITA, POR) in the 80's-90's same as last edition. Little changes at mid positions (CEE), China around 100's and then Latam, Africa. We can see Lovability (Magnetism) and Affordability (Net Purchase Power) as main drivers for most movements up, and Liveability (Performance) as main reason for movements down. We can see the impact of QUALITY OF LIFE as main driver.

QUALITY OF LIFE

City	Country	MAGNETISM	IDENTITY	DYNAMISM	STRATEGY	PROFITABILITY	PERFORMANCE	NetPurchase Power	ATTRACTIVENESS
Dubai	United Arab Emira	76	112	23	71	3	35	4	1
Abu Dhabi	United Arab Emira	104	144	38	96	1	39	2	2
Amsterdam	Netherlands	2	6	7	7	17	2	39	3
London	United Kingdom	1	1	61	2	25	7	42	4
Oslo	Norway	13	39	11	20	10	3	28	5
Rotterdam	Netherlands	7	41	10	10	15	10	26	6
Luxembourg	Luxembourg	54	71	26	82	4	30	7	7
Den Haag	Netherlands	18	72	8	24	16	16	23	8
Zurich	Switzerland	6	56	2	6	30	5	52	9
Eindhoven	Netherlands	29	68	16	49	11	11	22	10
Melbourne	Australia	46	77	29	42	7	43	11	11
Doha	Qatar	125	158	98	118	2	84	1	12
Copenhagen	Denmark	3	17	1	14	36	1	88	13
Stavanger	Norway	23	61	13	34	20	40	20	14
Bergen	Norway	24	61	15	39	18	25	21	15
Sydney	Australia	31	66	37	25	19	54	15	16
Malmo	Sweden	16	51	18	26	26	34	27	17
Montreal	Canada	69	93	33	74	6	53	8	18
Stockholm	Sweden	11	32	17	17	37	27	48	19
Toronto	Canada	30	65	30	33	24	68	17	20
Berlin	Germany	8	9	46	12	44	24	56	21
Aarhus	Denmark	12	44	6	30	40	8	72	22
Oulu	Finland	57	107	21	50	14	29	19	23
Geneva	Switzerland	17	59	5	43	35	16	51	24
Tampere	Finland	33	113	14	11	28	20	32	25
Adelaide	Australia	82	113	41	59	9	58	9	26
Canberra	Australia	70	108	47	37	13	58	12	27
Madrid	Spain	4	4	20	32	57	9	96	28
Singapore	Singapore	56	129	39	5	21	6	34	29
Vienna	Austria	9	10	22	26	51	35	67	30
Gothenburg	Sweden	20	73	12	19	43	43	41	31
Basel	Switzerland	36	40	4	99	33	19	44	32
Munich	Germany	21	46	36	21	42	4	78	33
Bern	Switzerland	28	68	3	70	38	42	36	34
Zaragoza	Spain	27	25	28	68	39	13	55	35
Ottawa	Canada	84	118	27	83	12	64	10	36
Edinburgh	United Kingdom	10	7	55	9	55	15	90	37
Tokyo	Japan	48	19	75	46	31	22	38	38
Hamburg	Germany	15	35	43	16	49	35	64	39
Taipei	Taiwan	106	157	74	44	5	76	5	40
Vancouver	Canada	77	94	25	89	22	66	16	41
Paris	France	5	2	49	29	78	35	99	42
Valencia	Spain	26	22	32	66	47	40	58	43
Helsinki	Finland	25	82	9	23	50	12	87	44
Barcelona	Spain	14	5	31	51	68	22	94	45
Osaka	Japan	101	100	82	92	8	25	18	46
Hong Kong	Hong Kong	86	96	76	56	23	69	13	47
Frankfurt	Germany	40	54	44	38	52	28	74	48
Glasgow	United Kingdom	47	37	59	52	46	21	75	49
Cologne	Germany	22	13	53	31	66	64	60	50
Stuttgart	Germany	35	20	48	62	59	50	61	51
Espoo	Finland	42	80	19	41	58	13	93	52
Málaga	Spain	41	26	34	79	60	51	63	53
New York City	United States	19	12	88	3	79	33	101	54
Manchester	United Kingdom	38	15	67	35	69	48	81	55
Seville	Spain	59	34	40	105	48	43	53	56
Dusseldorf	Germany	61	49	51	86	53	30	73	57
Santander	Spain	60	57	24	102	54	46	65	58

Figure 3. Full list of 2026 top 175 Attractive Cities. Source: Author

City	Country	MAGNETISM	IDENTITY	DYNAMISM	STRATEGY	PROFITABILITY	PERFORMANCE	NetPurchase Power	ATTRACTIVENESS
Seoul	South Korea	45	51	109	1	71	49	84	59
Dublin	Ireland	32	38	45	47	77	67	77	60
Liverpool	United Kingdom	51	28	63	73	64	56	68	61
Linz	Austria	93	89	42	111	34	18	49	62
Bristol	United Kingdom	49	31	68	53	70	47	83	63
Yokohama	Japan	92	119	78	36	41	62	29	64
Nottingham	United Kingdom	64	54	69	69	62	54	62	65
Boston	United States	44	66	79	4	84	70	82	66
Belfast	United Kingdom	52	21	65	75	76	73	66	67
Dallas	United States	90	90	104	48	45	51	40	68
Nagoya	Japan	105	122	80	88	27	30	29	69
Los Angeles	United States	34	14	95	15	88	94	69	70
Antwerp	Belgium	37	28	56	40	89	100	59	71
San Francisco	United States	39	46	77	8	90	57	100	72
Brussels	Belgium	43	27	52	57	91	97	71	73
Birmingham	United Kingdom	58	30	70	78	81	73	76	74
Bilbao	Spain	74	78	35	94	75	60	80	75
Bordeaux	France	67	33	50	104	83	72	79	76
Chicago	United States	50	24	99	28	92	114	50	77
Lille	France	72	58	54	90	82	80	70	78
Kansas City	United States	89	79	102	67	63	106	25	79
Houston	United States	88	82	100	63	67	111	24	80
Nice	France	65	15	64	98	85	70	89	81
Lyon	France	53	44	62	64	94	88	86	82
Phoenix	United States	99	109	108	45	56	76	33	83
Las Vegas	United States	97	87	105	81	61	92	31	84
Wellington	New Zealand	87	101	71	72	74	91	47	85
Washington, D	United States	63	36	86	55	93	85	85	86
Marseille	France	62	10	66	103	95	83	91	87
Miami	United States	83	68	93	54	87	100	57	88
Denver	United States	95	99	101	61	72	94	37	89
Baltimore	United States	100	76	106	93	73	98	35	90
Auckland	New Zealand	94	104	72	85	80	104	45	91
Seattle	United States	71	90	81	18	97	96	92	92
Atlanta	United States	73	43	97	57	98	125	43	93
Torino	Italy	96	64	96	100	86	111	46	94
Rome	Italy	66	3	83	113	102	109	95	95
Florence	Italy	68	8	87	91	103	88	103	96
Lisbon	Portugal	78	18	57	117	99	62	107	97
Porto	Portugal	75	48	60	95	101	60	109	98
Philadelphia	United States	91	42	107	97	96	118	54	99
Prague	Czech Republic	55	53	58	65	109	79	112	100
Milan	Italy	79	22	94	84	104	87	105	101
Tallinn	Estonia	85	94	73	60	106	75	110	102
Riyadh	Saudi Arabia	136	166	116	128	32	93	14	103
Shanghai	China	80	88	115	13	118	103	125	104
Honolulu	United States	109	142	90	76	100	102	98	105
Beijing	China	81	74	114	22	119	107	123	106
Jerusalem	Israel	102	85	123	80	112	122	97	107
Warsaw	Poland	98	74	84	106	115	78	127	108
Vilnius	Lithuania	110	113	89	110	108	81	111	109
Ljubljana	Slovenia	112	103	92	120	107	88	108	110
Tel Aviv	Israel	111	130	120	77	110	115	104	111
Chongqing	China	118	120	121	111	105	107	102	112
Wroclaw	Poland	107	86	91	116	120	119	116	113
Chengdu	China	113	105	117	115	117	105	118	114
Shenzhen	China	116	148	113	87	114	82	120	115
Kuwait City	Kuwait	155	171	147	153	29	135	3	116
Wuhan	China	123	149	122	108	111	110	106	117
Suzhou	China	119	126	119	114	116	98	119	118

Figure 3. Full list of 2026 top 175 Attractive Cities. Source: Author

City	Country	MAGNETISM	IDENTITY	DYNAMISM	STRATEGY	PROFITABILITY	PERFORMANCE	NetPurchase Power	ATTRACTIVENESS
Manama	Bahrain	144	164	136	147	65	128	6	119
Guangzhou	China	122	137	111	121	113	85	117	120
Athens	Greece	108	60	110	126	124	124	126	121
Budapest	Hungary	103	50	118	109	129	127	134	122
Riga	Latvia	115	128	103	107	123	120	121	123
Santiago	Chile	120	123	125	119	121	123	113	124
Bratislava	Slovakia	128	102	134	137	122	121	115	125
Tianjin	China	124	123	128	123	126	116	141	126
Zagreb	Croatia	117	92	112	132	130	129	136	127
Shenyang	China	131	132	126	130	127	116	142	128
Istanbul	Turkey	114	61	150	101	137	137	143	129
Harbin	China	135	155	129	122	125	113	140	130
Kuala Lumpur	Malaysia	134	172	85	127	128	126	130	131
Sofia	Bulgaria	121	96	131	129	133	132	139	132
Belgrade	Serbia	126	82	140	135	141	134	147	133
Bucharest	Romania	132	96	130	158	138	143	133	134
Rio de Janeiro	Brazil	133	113	142	134	140	138	145	135
Mexico City	Mexico	129	106	141	125	146	156	135	136
Montevideo	Uruguay	130	110	133	133	147	130	166	137
Sao Paulo	Brazil	137	134	138	142	139	131	148	138
Buenos Aires	Argentina	127	117	132	124	154	143	167	139
Moscow	Russia	147	125	171	131	131	139	124	140
Brasilia	Brazil	143	161	137	145	135	133	144	141
Ankara	Turkey	146	110	154	163	134	139	137	142
Bangkok	Thailand	138	154	127	148	148	141	150	143
Bogota	Colombia	140	144	144	139	145	160	122	144
Guadalajara	Mexico	145	153	145	146	143	155	128	145
San José	Costa Rica	142	161	124	155	149	162	132	146
Córdoba	Argentina	139	134	139	154	151	142	159	147
Monterrey	Mexico	151	165	146	141	142	148	138	148
Medellín	Colombia	154	169	143	151	144	154	129	149
Cape Town	South Africa	141	127	152	149	160	159	161	150
Jakarta	Indonesia	148	156	149	140	156	157	152	151
St Petersburg	Russia	165	150	172	150	136	145	131	152
Minsk	Belarus	169	139	166	172	132	149	114	153
Tbilisi	Georgia	157	133	148	170	153	136	169	154
Kiev	Ukraine	161	131	167	162	150	146	154	155
Bangalore	India	152	147	159	144	161	151	172	156
Johannesburg	South Africa	153	134	163	156	162	161	162	157
Mumbai	India	150	141	160	143	168	164	174	158
Panama City	Panama	159	170	135	164	159	165	146	159
Hyderabad	India	156	152	151	160	163	153	171	160
Hanoi	Vietnam	164	174	153	152	152	146	157	161
Durban	South Africa	162	158	156	157	158	158	153	162
New Delhi	India	149	144	161	138	172	170	173	163
Lima	Peru	160	143	164	161	166	166	160	164
Tunis	Tunisia	158	80	169	175	167	168	155	165
Ho Chi Minh Ci	Vietnam	167	175	162	136	155	151	156	166
Quito	Ecuador	163	160	158	159	164	167	151	167
Rabat	Morocco	168	140	168	167	157	150	164	168
Casablanca	Morocco	166	121	173	166	165	163	165	169
Santo Dominge	Dominican Repub	170	151	157	173	170	169	170	170
Manila	Philippines	171	167	155	168	173	173	168	171
Cairo	Egypt	172	138	175	165	171	172	163	172
Asuncion	Paraguay	173	163	165	174	169	171	158	173
La Paz	Bolivia	174	168	170	169	175	174	175	174
Accra	Ghana	175	173	174	171	174	175	149	175

Figure 3. Full list of 2026 top 175 Attractive Cities. Source: Author

Honors Board. Magnetism IDENTITY

HISTORY/CULTURE

1	Florence
2	Paris
3	London
4	Madrid
5	Tunis
6	Rome
7	Seoul
8	Beijing
9	Mexico City
10	Vienna

GOV-BASICS

1	Geneva
2	Bern
3	Zurich
4	Basel
5	Wellington
6	Auckland
7	Dublin
8	Copenhagen
9	Aarhus
10	Bergen

REPUTATION

1	London
2	Edinburgh
3	Manchester
4	Glasgow
5	Birmingham
6	Nottingham
7	Bristol
8	Liverpool
9	Belfast
10	Berlin

SPACE/DENSITY

1	Wellington
2	Edinburgh
3	New Delhi
4	Oslo
5	Tallinn
6	Bogota
7	Mumbai
8	Hong Kong
9	Ankara
10	Medellín

CLIMATE

1	Nice
2	Florence
3	Rome
4	Montevideo
5	Washington, D.C.
6	Jerusalem
7	Lisbon
8	San Francisco
9	Johannesburg
10	Barcelona

GeoRISK

1	Luxembourg
2	Singapore
3	Minsk
4	Manama
5	Doha
6	Budapest
7	Aarhus
8	Copenhagen
9	Bratislava
10	Prague

GeoECONOMICS

1	Prague
2	Atlanta
3	Miami
4	Vienna
5	Linz
6	Wroclaw
7	Warsaw
8	Baltimore
9	Chicago
10	Prague

GASTRONOMY

1	Antwerp
2	Nice
3	Malmo
4	Luxembourg
5	Espoo
6	Amsterdam
7	Bilbao
8	Brussels
9	Lisbon
10	Porto

BRANDING

1	Los Angeles
2	New York City
3	London
4	Paris
5	Chicago
6	San Francisco
7	Philadelphia
8	Istanbul
9	Atlanta
10	Miami

Honors Board. Magnetism

Magnetism DYNAMISM

EXPAT EXPERIENCE

1	Madrid
2	Santander
3	Valencia
4	Zaragoza
5	Barcelona
6	Málaga
7	Bilbao
8	Seville
9	Dubai
	Abu Dhabi

COMPETITIVENESS

1	Zurich
2	Geneva
3	Bern
4	Basel
5	Hong Kong
6	Singapore
7	Copenhagen
8	Aarhus
9	Dubai
10	Abu Dhabi

QUALITY OF LIFE

1	Amsterdam
2	Copenhagen
3	Munich
4	Vienna
5	Den Haag
6	Zurich
7	Hamburg
8	Melbourne
9	Tokyo
10	Frankfurt

ETHICS WELL-BEING

1	Oslo
2	Bergen
3	Stavanger
4	Copenhagen
5	Aarhus
6	Den Haag
7	Rotterdam
8	Vancouver
9	Amsterdam
10	Dublin

EQUALITY

1	Helsinki
2	Tampere
3	Espoo
4	Oulu
5	Bergen
6	Stavanger
7	Oslo
8	Copenhagen
9	Aarhus
10	Malmo

Magnetism STRATEGY

HUMAN CAPITAL

1	New York City
2	London
3	Boston
4	Paris
5	Los Angeles
6	Shanghai
7	Sydney
8	Adelaide
9	Melbourne
10	Beijing

SMARTCITY

1	Rotterdam
2	Tampere
3	Singapore
4	Dubai
5	London
6	Amsterdam
7	Valencia
8	Seoul
9	Copenhagen
10	Zurich

INNOVATION

1	Boston
2	NewYork City
3	San Francisco
4	Los Angeles
5	Seattle
6	Phoenix
7	Atlanta
8	Chicago
9	Dallas
10	Kansas City

Honors Board. Profitability. Performance

DIGITAL GOV.

1	Seoul
2	Kiev
3	Taipei
4	Riyadh
5	Copenhagen
6	Aarhus
7	London
8	Edinburgh
9	Birmingham
10	Liverpool

EDUCATION. LIFELONG TRAINING

1	Singapore
2	San Francisco
3	Boston
4	New York City
5	Washington, D.C.
6	Chicago
7	Seattle
8	Los Angeles
9	Baltimore
10	Philadelphia

EMPLOYABILITY

1	Luxembourg
2	Dallas
3	Bangalore
4	Linz
5	Dubai
6	Abu Dhabi
7	Nagoya
8	Geneva
9	Riyadh
10	Doha

CONNECTED CITY

1	Copenhagen
2	Aarhus
3	Doha
4	Dubai
5	Abu Dhabi
6	Montevideo
7	Dallas
8	New York City
9	San Francisco
10	Chicago

HLC / SOCIAL SVS

1	Oslo
2	Stavanger
3	Bergen
4	Malmo
5	Vienna
6	Stockholm
7	Paris
8	Munich
9	Copenhagen
10	Gothenburg

ENV.SUSTAINABILITY

1	Oslo
2	Malmo
3	Tampere
4	Rotterdam
5	Glasgow
6	London
7	Porto
8	Stockholm
9	Manchester
10	Copenhagen

CULTURE/TOURISM

1	Paris
2	London
3	New York City
4	Amsterdam
5	Barcelona
6	Madrid
7	Milan
8	Tokyo
9	Berlin
10	Los Angeles

URBAN MOBILITY

1	Zaragoza
2	Espoo
3	Oulu
4	Bilbao
5	Santander
6	Malmo
7	Tampere
8	Kansas City
9	Málaga
10	Gothenburg

URBAN PLANNING

1	Zurich
2	Vienna
3	New York City
4	Singapore
5	Geneva
6	Amsterdam
7	Tokyo
8	Munich
9	San Francisco
10	Rotterdam

SAFETY

1	Abu Dhabi
2	Doha
3	Dubai
4	Taipei
5	Hong Kong
6	Bern
7	Munich
8	Zurich
9	Nagoya
10	Espoo

Honors Board. Profitability. Net Purchase Power

MONTHLY WAGE (AVG)

1	Luxembourg
2	Oslo
3	Bergen
4	Stavanger
5	Doha
6	Dubai
7	Abu Dhabi
8	Zurich
9	Geneva
10	Bern

INCOME AFTER DIR TAXES

1	Doha
2	Luxembourg
3	Dubai
4	Abu Dhabi
5	Oslo
6	Bergen
7	Stavanger
8	Zurich
9	Geneva
10	Bern

NET REAL INCOME

1	Doha
2	Dubai
3	Abu Dhabi
4	Luxembourg
5	Zurich
6	Geneva
7	Bern
8	Basel
9	Kuwait City
10	Oslo

COST OF LIFE

1	Hyderabad
2	Bangalore
3	New Delhi
4	Cairo
5	Mumbai
6	Chongqing
7	Chengdu
8	Ho Chi Minh City
9	Hanoi
10	Jakarta

Figure 4. Honors Board. Source: Author

Honors Board. ATTRACTIVENESS

IDENTITY

1	London
2	Paris
3	Rome
4	Madrid
5	Barcelona
6	Amsterdam
7	Edinburgh
8	Florence
9	Berlin
10	Vienna

DYNAMISM

1	Copenhagen
2	Zurich
3	Bern
4	Basel
5	Geneva
6	Aarhus
7	Amsterdam
8	Den Haag
9	Helsinki
10	Rotterdam

STRATEGY

1	Seoul
2	London
3	New York City
4	Boston
5	Singapore
6	Zurich
7	Amsterdam
8	San Francisco
9	Edinburgh
10	Rotterdam

MAGNETISM

1	London
2	Amsterdam
3	Copenhagen
4	Madrid
5	Paris
6	Zurich
7	Rotterdam
8	Berlin
9	Vienna
10	Edinburgh

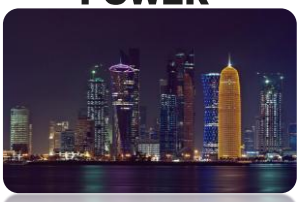
PROFITABILITY

1	Abu Dhabi
2	Doha
3	Dubai
4	Luxembourg
5	Taipei
6	Montreal
7	Melbourne
8	Osaka
9	Adelaide
10	Oslo

PERFORMANCE

1	Copenhagen
2	Amsterdam
3	Oslo
4	Munich
5	Zurich
6	Singapore
7	London
8	Aarhus
9	Madrid
10	Rotterdam

NET PURCHASE POWER



1	Doha
2	Abu Dhabi
3	Kuwait City
4	Dubai
5	Taipei
6	Manama
7	Luxembourg
8	Montreal
9	Adelaide
10	Ottawa

ATTRACTIVENESS

1	**Dubai**
2	**Abu Dhabi**
3	**Amsterdam**
4	**London**
5	**Oslo**
6	**Rotterdam**
7	**Luxembourg**
8	**Den Haag**
9	**Zurich**
10	**Eindhoven**
11	**Melbourne**
12	**Doha**
13	**Copenhagen**
14	**Stavanger**
15	**Bergen**

Figure 4. Honors Board. Source: Author

6.2 Cities Segments & Grouping

WINNERS (in order): UAE, NED, NOR, DK, SWI, GE, SPA, AUS, UK, CAN, 4 Asian Tigers, SWE, FIN, EU Main Capitals. South Europe (FR, ITA, POR) slight improvement due to EU funding investment. Main reasons are: Increase on Dynamism due to Quality of Life and Expat Experience, on Strategy due to SmartCity Plan, and on Profitability due to better NetPurchase Power. We can highlight the gaining positions from UAE (Dubai repeating 1st and AbuDhabi climbing to 2nd), 4 Asian Tigers (starting at position 30). UK (from 4-37) and SWI (from 9) are also recovering from poor last years. SWE, FIN recovering from bad last year. Long-term growth is shown from UAE (from 1) and 4 Asian tigers (from 30). CHN is growing slightly every year (now from 104).

LOSERS: USA, SPA, JPN, NZ due to late recovery actions and inflation impact, increase on cost of living and decrease on Quality of Live, also worsening of Inequality (Gini Index). JPN moving down from starting at 17 to 38 this year, after Universal Expo, inequality, aging society and decrease in Performance (city services). Although still on top 80 positions, SPA has declined from last year starting at Madrid (28, was 12), due to increase on cost of living without same increase in salaries, making a decrease in purchasing power. Reduction or stalling on investments (mainly those from Environmental) has impacted on the quality of services (performance) (USA (from 54), with most US cities from 66 to 94). Gap with LatAm and all Asia increased a little due to economy impact (except CHN). After most Western Cities, we can see Middle East starting at 107 with Jerusalem, Istanbul at 129 dropping from 106, mixed with Central & Eastern Europe. China is entering this challenger's area with Shanghai at 104, moving up from 115. Latam starts at 124 (Santiago de Chile), SouthAfrica at 150 (Cape Town), Africa at 165 (Tunis) and India at 156 (Bangalore). This area of emerging cities is stalled or even worsening the distance with challengers.

Main segments. ADVANCED: Top105. (Western Europe, UAE, AUS, US, CAN, JPN, 4 Asian tigers). Here we can split in three groups. 1-30 Quality of Life & Profitability (Nordics, GE, NED, UAE, CAN, AUS, SWI), 30-85 Mainly Economy driven or dropping from previous (US, UK, SPA, JPN, 4 Asian tigers), and 85-100 Attractive mainly because of Magnetism, facing problems in Profitabilty (FR, SouthEurope, NZ). CHALLENGERS: 105-114. (ME, CEE, ISR, some CHN). EMERGING: 114-160. (with CHN, then LatAm (from 124), RUS (from 140), SouthEast Asia, SouthAfrica (from 150)). STARTERS: 165-175. (IND, Africa).

ADVANCED: From position 1 to 101, we find the most advanced, Western civilization cities, with the greatest Quality of Life, and Magnetism attractiveness. The position of NOR is especially noteworthy with the 3 cities studied in the top 15 positions. UAE (Dubai (1) and Abu Dhabi (2) have finally reached these top positions due to extraordinary Profitability and consistent improvement on technology adoption and quality of life. DK, NED, LUX, GER, CAN, AUS, SWE, accompany UAE, NOR in these top 30, all countries investing strong on technologies with covid-recovery funds and gaining new levels of quality of live, some from lovability, all from livability (performance of provided services).. CAN improved its profitability and jumped into these top30 with two cities (TOR, MON). SWE, FIN climbed back to this selected positions.

From position 30 to 85 we find most USA, UK, all suffering strong economic impact. They are not so Attractive from Magnetism due to social inequity and decrease on quality of living. SPA dropping from top30 due to decrease in net purchase power. BEL, IRE are here improving due to technology adoption. JPN decreases going down from Tokyo (38, was 17) till Nagoya (69). Next, and from positions 70 to 100, we find FR, ITA, POR all of them with a strong Magnetism and trying to maximize the recovery funds to compensate the recession. The 4 Asian Tigers: Singapore (29), Taipei (40), Hong-Kong (47) and Seoul (59), have improved positions due to technology investment, social stability and trust building. Closing this group (85-100) we find ITA, FR, and POR with problems due to high taxes, but they remain here due to high magnetism (Lovability), although at risk of falling to the next group. NZ is at same situation, struggling to keep this segment.

CHALLENGERS: In this area, we group cities from positions 105 to 114 which are progressing rapidly, competing to join the leading group, following the example from Asian tigers. Here, we find the Middle East, led by Israel and Central/Eastern Europe. Any of these cities can join the top-tier group as soon as they gain prestige and consolidate the interesting advances they have made in recent years.

EMERGING: Positions 114-160. First, we find China growing steadily (Shanghai 104-Harbin 130), then most LatinAmerica led by Santiago (124), Rio (135), Mexico DF (136) till 160. And finally, Russia (140-152) losing attractiveness, South Africa (150s) and SouthEast Asia. It's like a BRIC group, but without India, replaced by Thailand, Malaysia although with different dimensions. Due to City conflicts with state, Istanbul dropped from Challenger to 129. These cities have plans, recognize this global competition, and are making rapid progress.

STARTERS: Positions 165-175. Among the Starters are Indians and Africans. These cities are beginning to plan their strategies for the global competition for talent although they continue to be burdened by unresolved, basic social and economic issues. Bolivia, Ecuador, Paraguay, Philippines, Dominican Republic are falling into this segment as well.

6.3. City Attractiveness Findings

City Attractiveness is influenced by several key trends that affect the quality of life in urban areas. These trends are shaped by factors such as economic conditions, environmental sustainability, safety, healthcare, education, infrastructure, and more. To study all those components, let's split the approach into three areas, matching our Quality of Life model concepts with the current trends of Lovability, Liveability and Affordability:

City Magnetism → City Lovability

City Profitability. Performance → City Liveability

City Profitability. Net Purchase Power → City Affordability

If we had to highlight which of these drivers is the main at the moment, we would clearly think about Lovability. Why? Because this is human-centric, and every time we focus on placing the citizen front and center of what we do in the city, happiness is improved, and this is the main perception of quality of life. Liveability is quite good in most of studied cities (most from first world because, by default, a city that implies a risk for your life is not attractive, period). Ok, Prosperity helps, and Affordability is super important, but new generations are not so much driven by profitability but quality of life. So, cities trend to make them more human, fostering inclusion, people connection and attachment, stimulating creativity, ruling by freedom and respect, encouraging empowerment, making human-centric cities with happier people. And happier and empowered people make more resilient cities eager to drive economic growth. Good approach to this concept has been developed by Singapore (Kulasooriya & Wee, 2021)

City Magnetism → City Lovability

Although Magnetism mainly includes Identity (Branding), Dynamism (Social Experience) and Strategy (Technology and Innovation), City Lovability is based on that all but goes beyond, above all the lived experience, the moment, the emotions associated with living a wonderful experience, the Greek *'kairos'* as a definition of the present time as enjoyment of the moment, as a small explosion of happiness, of good feeling, charming. Lovability is identified with Prosperity.

Below are some of the main trends that are shaping city lovability in 2025 and beyond:

Social and Cultural Vibrancy. Social City:

- **Cultural Offerings and Lifestyle**
- **Sustainable Tourism**
- **Diversity and Inclusivity**
- **Civic Participation. Playground City**
- **Engaging Citizens in Decision-Making**

Brand Recognition. Soft Power. Stand out from crowd

- **Cultural Events. Exhibitions**
- **Worls main Sports Events**
- **Arts (Music, Movies,StreetArt..) set at City**
- **Gastronomy**
- **Social networks impact (Bloggers, etc)**
- **Nightlife, Public social physical life**

New workstyles (Hybrid, Remote, Nomad)

- Green Spaces and Outdoor Living
- Hybrid Work Environments
- Remote Work-Friendly Cities
- Gig Economy Growth
- Platforms for Local Businesses Development

Global vs. Local/Regional Disparities. Intermediate Cities

- Differences Between Global Cities and Intermediate Cities
- More Affordable same high quality of life standards non-iconic cities
- Rebalancing Urban Density

City Profitability. Performance → City Liveability

Best liveability is associated with top city services quality (City Performance). Main services 10 groups are: Digital Government and technology use, Lifelong-Training (Education), Employability (abundant offers and qualified demand), Communications Connectivity (5G/6G, fiber), HealthCare and Social Services, Environmental Sustainability (Carbon neutral, Circular City), Culture/Tourism, Urban Mobility (Sustainable, Autonomous, Shared), Urban Planning and Safety. All of them in a stable, peaceful and risk-free geopolitical environment.

Sustainability and Climate Change Adaptation:

- Climate Adaptation. Decarbonization
- Sustainable Transportation
- Energy Efficiency
- Sustainable Urban Tech
- Circular Economy Innovations

Public Health and Safety:

- Healthcare Infrastructure
- Telemedicine and Healthtech
- Smart Hospitals
- Mental Health Focus
- Safety and Crime Rates

Digital Infrastructure and Smart City Initiatives.

- Artificial Intelligence and Automation Investments
- Digital Connectivity
- Investment in Smart Infrastructure
- Smart City Solutions
- AI in Urban Management. Digital Twins. Agentic AI
- Automation and Robotics in Public Services
- Tech Hub Cities
- Innovation (AI) in Public Services

Mobility and Transportation Innovations:

- Public Transport Efficiency
- Walkability and Cycling Infrastructure.
- Autonomous Vehicles and Mobility-as-a-Service (MaaS)
- Electric and Micro-Mobility Investments. EV Chargers
- Urban Air Mobility

Geopolitical Stability, Global Trade Shifts and Governance:

- Political Stability as a Key Factor
- Public Trust in Institutions
- Geopolitical Risk Management
- Trade Hubs and Supply Chains

Reshaping the physical City. Resiliency:

- Integral Health due to Built environment
- Nature-based Solutions.Rewildering
- Age-friendly City
- Resiliency due to Preparedness
  - Trees, Shades, Climate shelters
  - Household stock retrofitting
  - Sponge City
  - Social & Economic Resilience

Quality of Education. Lifelong Training. ReSkilling

- **Access to Quality Education**
- **Tech Talent and Digital Literacy Initiatives**
- **Civil Servants ReSkilling**

Cybersecurity Investments:

- **Cybersecurity in Info Systems**
- **Cybersecurity at Urban Management (IoT Security)**

City Profitability. Net Purchase Power → City Affordability

And finally, the economic terms for the best Quality of Life. Those cities with good wages, low taxes and affordable cost of life multiply their attractiveness. But best quality and top performer cities trend to become expensive. Especially relevant is cost of housing, as main cost associated with living in a city. Inflation made cost of goods to rise and also mortgages interest ratios, making a house buy an unreachable dream for young people. Most young people are leaving parents house later every year, creating family and generations problems and delaying their independence and self-confidence.

Affordable Housing and Cost of Living:

- **Housing Affordability**
- **Urban Outmigration**
- **Inflation and Cost of Living**

Tech-Driven Economic Development Zones. Tech Startups and Venture Capital

- **Innovation Districts and Tech Hubs**
- **Special Economic Zones (SEZs)**
- **Fintech Innovation**
- **Growing Startup Ecosystems**
- **Public-Private Partnerships in Innovation. Urban technology Research institutes.**

Conclusion. Executive Summary

- Talented people, and especially those with soft or no ties to any particular place due to family or business reasons are seeking the best Quality of Life city that also matches their cultural preferences.
- Quality of life is a three-component motion: A vibrant stimulating Lovable city (a perfect combination of natural conditions with social and cultural action with the innovation as development flag, plenty of best services) and performance (Liveable) where your money worths the dedicated effort to make it (Affordable cost of living).
- In 2023/24, cities have invested heavily in technology to drive economic performance and improve quality of life. The focus is on smart city solutions, digital infrastructure, AI-driven services, sustainable urban development, and fostering innovation ecosystems. Cities that embrace these trends are not only boosting their economic competitiveness but also enhancing their resilience, sustainability, and liveability in the face of global challenges.
- In 2025/26, our cities live in a context of uncertainty, following a pandemic, then a recession, and with signs that it could happen again—perhaps due to the AI bubble—, with wars in critical areas of the planet, with climate change approaching like a tsunami, but losing hype due to the impossibility of mitigating it at a reasonable cost, with major countries reluctant to pay the green bill, and with new generations who, for the first time, will not enjoy better economic conditions than their predecessors. And talent is looking for the best city to develop its full potential, with the desire to enjoy life, to experience it—we are noticing the renaissance of tourism—as its main driver.

Cities struggle to balance a short-term brand perception, standing out in a crowd of competitors for external talent, while building a strong long-term internal sense of belonging, retaining local.

Talent is primarily looking for Lovable Cities, assuming existing good performance to make them Liveable and demanding good Affordability. These three areas are key, but this year, Lovability (always combined with Affordability) reigns supreme, as performance is quite good in most modern cities, and money isn't the main reason, as it has traditionally been. Why Lovability? Because it's human-centered, and every time we focus on prioritizing citizens in our actions in the city, happiness improves, and this is the main perception of quality of life. The preferences of young professionals and the talented workforce correlate strongly with the concept of Lovable Cities (local social life, restaurants, culture, nightlife, well-being, urban nature recovery, and inclusion/diversity). Therefore, Fortune 500 companies looking to recruit that talent try to locate in these Lovable Cities. While prosperity helps, and affordability is critical, the new generations aren't guided as much by profitability as by quality of life. Therefore, cities tend to be more humane, fostering inclusion, connection, and attachment between people, stimulating creativity, governed by freedom and respect, promoting empowerment, and creating human-centered cities with happier people. And happier and more empowered people create more resilient cities, eager to drive economic growth.

We observe 3 main motions to study from all cities:

1.- Economy. In the 2021 Observatory we saw how cities in the USA, Canada and Australia grew significantly by facing the economic shock caused by the pandemic with greater resilience. It took them very little time to recover. However, in 2022 they were overtaken by Europe and Japan, being less impacted by inflation and by the positive effect of the European recovery funds launched since 2021 (the American IRA scheme started too late in 2022 (August)). In 2023, inflation was brought under control, but prices did not return to previous levels, and the affordability remains a top problem during 2024/2025.

The environmental sustainability investment engine also lost much of its extraordinary enthusiasm, and opportunities to invest in technology (digital twins, IoT, etc.) were relegated to the background, especially in the United States. US resolutions against climate change and the potential elimination or reduction of key Inflation Reduction Act (IRA) programs in 2025/2026 have produced three immediate effects: a legal and administrative freeze on many clean energy expenditures, a pause or cancellation of projects that cities and states were planning to implement, and a measurable cooling of private co-investment. On January 20, 2025, the White House issued the "Unleashing American Energy" order, which instructed agencies to immediately pause disbursements of funds allocated through the IRA and the Infrastructure Investment and Jobs Act while the programs were reviewed (White House, 2025). Reports from the days that followed documented the freeze and its scope, noting that agencies and recipients were plunged into uncertainty about funds already awarded (Utility Dive, 2025a; Utility Dive, 2025b). For cities, the initial pause created operational challenges. A further signal of this is the emergence of litigation by cities and local governments seeking to recover or protect congressionally appropriated climate funds. Cases such as The Sustainability Institute v. Trump, City of Saint Paul v. Wright, Harris County v. EPA, and litigation over EPA Environmental and Climate Justice grants show that local governments increasingly view federal climate, clean-energy, and resilience funds as essential urban assets rather than discretionary subsidies. A relevant example is City of Saint Paul, Minnesota v. Wright, where the U.S. District Court for the District of Columbia entered judgment for the plaintiffs and vacated DOE termination notices for seven clean-energy grants totaling $27.6 million, after finding that the challenged terminations violated the Fifth Amendment's equal protection guarantee (City of Saint Paul, Minnesota v. Wright, 2026; Inflation Reduction Act Tracker, 2026). An independent analysis estimates that repealing or eliminating IRA incentives would increase the average cost of electricity by more than $110 million in 2026 and jeopardize more than $500 billion in planned investments, with significant job losses later in the decade (Center for American Progress, 2025). Looking back to Europe, when the EU studied how much investment would be required for a city to become Carbon neutral in 2030, it was estimated at around €900 million for a city of around 100k inh. The calculation cannot be extrapolated directly proportional, but we can think of around €6b for a city of 1m inh. This is out of reach and causes the goal to be seen as unattainable, and therefore, smaller actions with a greater impact on citizens in the short term are prioritized.

As a consequence of the last period of inflation, we have seen a general rise in the cost of housing. In many cities, young talent finds it unaffordable to buy a home or rent one within a reasonable distance (no way for 15' ideal city…). This can be considered the main economic problem in large cities. Associated to this inflation problem, social unrest is boosting: High stress: 78% of U.S. adults said inflation was "very or moderately stressful" (Mitra et al, 2024).Mental health: People stressed by inflation had about 2x higher odds of anxiety/depression.(Pathak et al, 2025). Unequal impact: Low-income households, women, minorities, and retirees on Social Security were hit hardest. (Bethune, 2022).

Safety remains a decisive factor in the attractiveness of U.S. cities, but the recent evidence requires a more nuanced interpretation than a simple narrative of chronic deterioration. During the pandemic and post-pandemic period, many large American cities experienced visible increases in homicide, firearm violence, public disorder, homelessness, and opioid-related street vulnerability, all of which affected perceptions of urban safety and therefore the willingness of tourists, investors, companies, families, and skilled workers to choose those cities. Firearm availability and gun violence remain especially relevant in the U.S. context, while fentanyl and opioid addiction continue to create severe social, health, policing, and public-space challenges. However, recent data also show a strong improvement in several crime indicators. FBI national data for 2025 reported a 9.3% fall in violent crime and an 18.1% fall in murder and non-negligent manslaughter, while city-level analysis by the Council on Criminal Justice found that homicides in 35 reporting cities were 21% lower in 2025 than in 2024 and 44% below their 2021 peak (Council on Criminal Justice, 2026; FBI, 2026). Drug overdose deaths also declined substantially in 2024 and 2025, although opioid-related deaths remain high and continue to affect urban liveability, public health, and social cohesion (CDC, 2025, 2026).

The UAE's economic performance strengthened further in 2025, placing it well ahead of most advanced economies. According to the Federal Competitiveness and Statistics Centre, real GDP grew by 6.2% in 2025, reaching AED 1.9 trillion, while non-oil GDP expanded by 6.8% to AED 1.5 trillion, confirming the continued depth of the country's diversification strategy. This performance compares favorably with the IMF's October 2025 World Economic Outlook, which projected global growth at 3.2% in 2025, advanced economies growing at around 1.5%, and the euro area at approximately 1.2% (FCSC, 2026; IMF, 2025). Within the Gulf, the UAE remained one of the strongest performers, supported by diversification, trade, tourism, logistics, finance, construction, real estate, renewable energy, and digital sectors. KPMG's 2025 UAE CEO Outlook also reported strong business confidence, with 84% of UAE-based CEOs expressing confidence in the national economy, above the global average (KPMG, 2025). Abu Dhabi also approved an AED 42 billion, or approximately USD 11.4 billion, expansion of its Liveability Strategy to improve quality of life (Reuters, 2025b). In sustainable finance, Grand View Research estimated the UAE ESG investing market at USD 645.9 billion in 2025, with projected growth to USD 3.44 trillion by 2033, reflecting the growing role of ESG criteria in the country's financial ecosystem (Grand View Research, 2026). Digital and AI infrastructure is also becoming part of the diversification story, with Microsoft announcing that its UAE investment would reach USD 7.3 billion by the end of 2025 and a further USD 7.9 billion planned for 2026–2029 (Reuters, 2025a).

2.- Innovation. In parallel to economic resilience, those cities with a solid strategic innovation plan and leadership in the adoption of the latest technologies have gained relative positions compared to cities with a similar profile that have slowed down investment in innovation due to considerations of digital sovereignty, legislation applicable to data localization, blocks to the adoption of the latest technologies, etc. These considerations, although important, cannot slow down the leverage of innovation.

Satisfactory ways can always be found to ensure compliance with the GDPR, AI Act and other applicable legislations without blocking new technologies, which are key to the development of cities and the attraction of talent. New technologies, and especially advanced technologies in artificial intelligence, digital twin, predictive analytics and others, are only possible with the parallel adoption of cloud computing strategies and require the massive use of data. This is why Nordic cities are leading (and Norway and Finland have overtaken Sweden). The Netherlands is gaining a lot of ground and is positioned on top with Norway and Denmark. Germany and Switzerland are finally getting serious about investing in technology for cities and have moved up the ranking, and the UK is revamping positions in 2025 mainly due to this factor. The current challenge is the adoption of artificial intelligence in all areas of the city. This requires a broad, well-structured and available information (data) base. In addition, the correct and aggregated use of sensitive citizen information is another challenge to respect privacy, security, regulations, etc.

Global IT investment accelerated again in 2025, led by AI infrastructure, cloud platforms, data centres, software and intelligent applications. Gartner estimated worldwide IT spending at USD 5.43 trillion in 2025, up 7.9% from 2024, with AI-related infrastructure, especially data-centre systems, continuing to surge despite wider economic uncertainty (Gartner, 2025). The U.S. consolidated its leadership in AI investment: OECD data show that AI firms captured 61% of all global venture-capital investment in 2025, or USD 258.7 billion, with U.S.-based firms attracting approximately USD 194 billion, around 75% of global AI VC deal value (OECD, 2026a). Stanford's 2026 AI Index confirms the scale of this gap: U.S. private investment in generative AI alone reached USD 163.6 billion in 2025, while China and Europe combined attracted only USD 4.7 billion (Stanford HAI, 2026). The main technology trend is now shifting from generative AI as a conversational tool toward agentic AI: task-specific and role-based agents embedded in enterprise software, public services and operational workflows. Gartner identified agentic AI as a top strategic technology trend and projected that 40% of enterprise applications will include task-specific AI agents by the end of 2026, up from less than 5% in 2025 (Gartner, 2025).

3.- Non-capital cities. We see the rise of non-capital cities in most countries. These cities are proven more attractive than the capital cities of their countries. Examples are Dubai vs Abu Dhabi, Bergen vs Oslo, Aarhus vs Copenhagen, Gothenburg vs Stockholm, Tampere vs Helsinki, Antwerp vs Brussels, Valencia vs Madrid. The explanation is obvious: these cities incorporate the general advantages of the country, while offering a better quality of life by more easily approaching the 15' city ideal model due to their size. They also have a much lower cost of living as they are not the capital, especially in real-state, mitigating the housing problem. In addition, if they are based in a country well connected by public transport, then the supposed advantages of living in the capital are reduced and, therefore, they surpass their capital cities in attractiveness.

The rise of cities in Southern Europe and Spain in particular, especially medium-sized cities such as Valencia, Zaragoza, Malaga, Seville, Nice, Bilbao, Lyon, Florence, is worth analyzing. Their extraordinary quality of life, with a moderate cost, especially housing, medium size, good public transport and special attention to environmental sustainability make them gain many positions in attractiveness. It is clear that these medium-sized cities will never be able to compete in Magnetism with iconic cities with history and culture on every corner, but the problems of cost of living, social inequality and unacceptable distances in time make these cities lose attractiveness. It seems to conclude that the ideal situation is a well-connected medium-sized city (less than 90') from one of these iconic cities. This way you enjoy quality of life while enjoying excellent international airport, theaters, opera house, etc. in reasonable times.

6.4 City Attractiveness by GeoCluster.

AREA	ATTR26	ATTR25	ATTR24	ATTR23	ATTR22	ATTR21	ATTR20
Africa	163	162	162	164	164	162	166
Asia-Pacific	81	84	95	90	88	86	82
CE Europe	128	123	122	123	123	121	119
China Extended	105	113	113	113	116	128	131
India Extended	163	167	168	169	170	172	163
LatinAmerica	149	149	148	147	146	144	141
Middle East	92	96	98	101	104	116	121
North America	70	68	65	58	29	37	45
Western Europe	48	47	45	48	58	52	51

Figure 5. Average position by Clusters. Attractive Cities by Geographic Area. Source:Author

Figure 6 shows the average position achieved by each geographic area. Since the 2020 analysis, we find a head-to-head competition in Attractiveness between North America and Western Europe. With the economic impact of the pandemic, we can notice in the 2021 and 2022 analysis that North American cities rose in the ranking, while European cities suffered more from the effects of the pandemic and recovered more slowly. Western Europe enjoys more magnetism, history, culture and social values, but pays a high price in taxes to maintain its welfare policy programs, worsening its profitability. In 2022, North America did the opposite: it compensates for the lack of history and cultural/human flavor with strong economic and competitive incentives where they rank high in (and win in) everything by offering high profitability, high wages, moderate taxes and a reasonable cost of living. Better economic management of the pandemic crisis had this impact, improving the attractiveness of cities in the United States and Canada.

However, in the 2023 data we see a significant deterioration in North America (NA) (from average 29 to 58), being overtaken by Western Europe. This deterioration continues in this analysis of 2024 and even get worsened by 2025/2026, because the cost of living in the USA has not improved (although inflation has been contained) and prices have not fallen (just the opposite in the cost of housing, since many investors have seen real estate and gold as safer investment areas in the face of existing uncertainty (soaring oil prices, wars in critical areas, exorbitant bubble of technology and companies associated with artificial intelligence, etc.).

In parallel, Europe has not had as much of an inflationary effect, and medium-sized cities are holding up well, for the moment, to the pressure of the high cost of housing, so their traditional magnetism and quality of life (lovability) are evident, and the results of 2023 (48) are maintained, to 45 by 2024, 47 by 2025 and again 48 by 2026.

Few changes in Africa, China, India, Latam. China is slightly growing in some cities. For the rest, we can only perceive an increasing gap from top performers.

Some improvement in Asia-Pacific with Australia gaining some positions due to better Profitability and the good impact from 4 Asian tigers. They are improving their position due to their leadership in innovation. The Middle East is also improving slightly due to the boost from Saudi Arabia, Qatar and UAE.

6.5 City Attractiveness vs Population vs GDP.

We study the possible correlation of City Attractiveness with city population (Metropolitan Area). In figure 6, we can see the 175 studied cities, distributed horizontally according to their size, and vertically according to their score in the model. There are megacities in high and low positions, as well as medium-sized cities. In Magnetism, we rated high-density as positive, as an enabler of personal communication and development of activity. It's also well studied that despite the possible dispersion in small towns brought by the new communication and Internet technologies; citizens continue to prefer living in medium and large cities over isolated small towns. We should not confuse small cities close in commuting time to other large cities: they must be associated to that main city. For humans, they are psychologically the same city, same metropolitan area. From the observation and the correlation coefficient R^2 = 0.0762 we conclude that there is NO correlation between City Attractiveness and city size. Furthermore, we see that largest cities are strongly attractive due to Magnetism, although they are usually more expensive, and therefore with less Profitability, but that the second/third ranked cities in each country are more affordable, maintaining very good performance standards and high Profitability, although they are less Magnetic, so both things are offset in both city sizes. As explained, midsized cities are winning the competition due to their better quality of life. Perhaps we could say that we find megacities with more problems and handicaps to be leaders in Attractiveness, but they provide a bonus when it comes to Magnetism which is important to value.

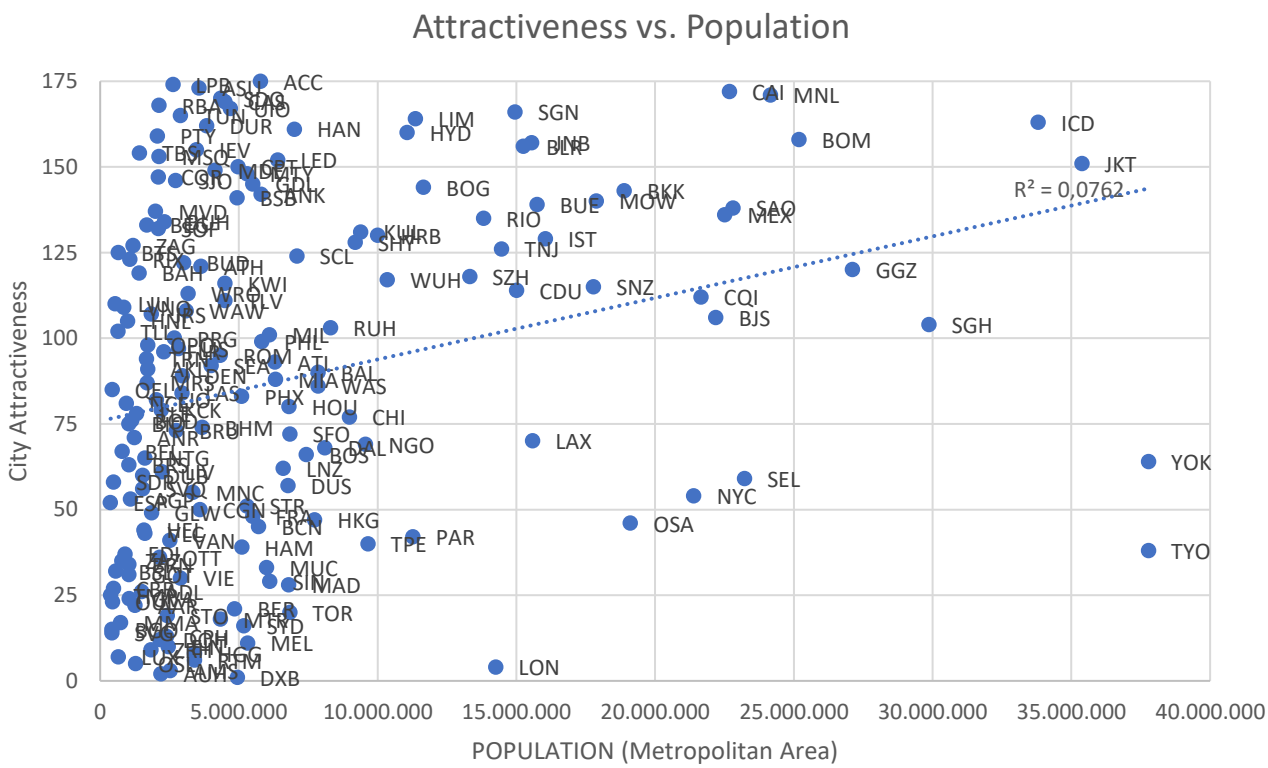


Figure 6. City Attractiveness vs Population (Metropolitan Area). Source: Author

In figure 7, we can compare City Attractiveness with GDP/Capita. Here R^2 = 0.5657, indicating a good correlation (although deteriorating vs last years, which means that money is becoming less relevant…) between these two magnitudes. No surprises: larger budgets with which to invest improves city branding, the external image, events, cultural activities, competitiveness and obviously the city services and Net purchasing power, because of higher wages. The opposite is also true: as we studied, low budgets lead to poorer city development, urbanism, quality of life and services and lower wages, so all main items are severely impacted. Again, we cannot conclude that City Attractiveness is a just a matter of rich cities, and we see a trend to reduce that correlation. That's not true, as we can see in vertical (very similar GDP) all cities from same country show a large difference in positions, but obviously city wealth and capacity to invest strongly contributes to City Attractiveness.

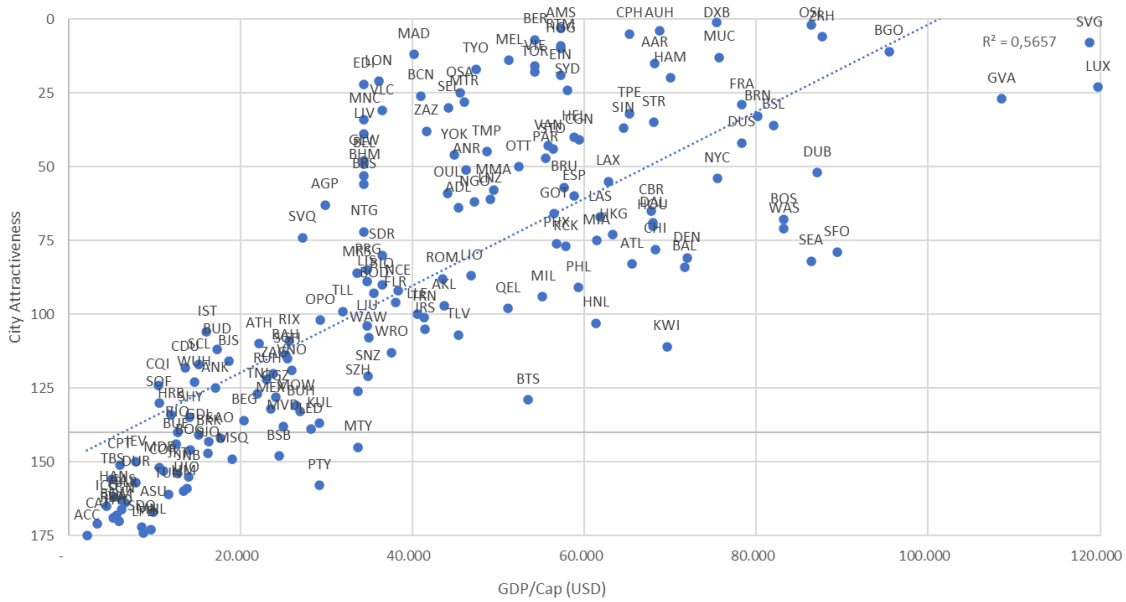


Figure 7. City Attractiveness vs GDP/Cap (USD). Source: Author

6.6 Attractive Cities vs SmartCities.

We are going to study the impact of investments in SmartCities on making the city more Attractive. We found that for many cities, investments in their SmartCity plan are the main axis of their strategy to improve their Attractiveness. These investments directly improve performance in city services, and therefore their City Profitability. In addition, they improve their investment in the future, their strategy, also their image of modernity and their reputation, and therefore, their Magnetism. For many cities, it is an important question of prestige (Asian Tigers and Chinese cities). However, we see many cities that pay little attention to a consolidated SmartCities plan, (even if they offer very good services) because they do not consider that they should improve their external image because they think they simply do not need it, since they are already very attractive from economy point of view… We place the Swiss, and some German, US cities here. Let's study figure 8.

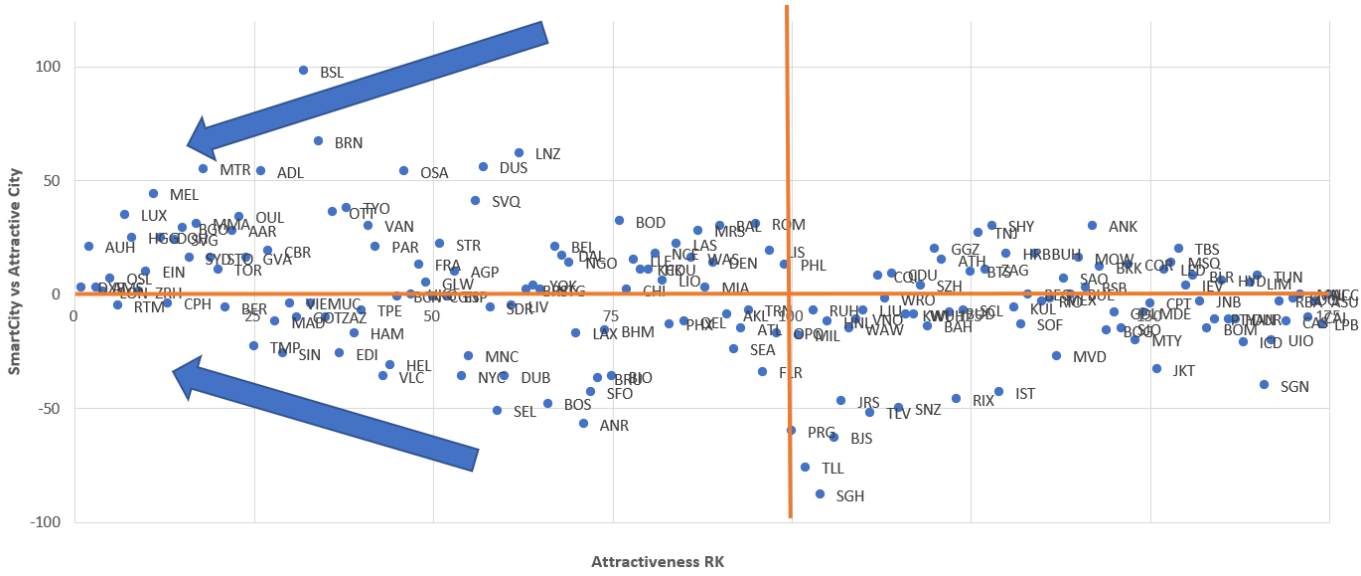


Figure 8. City Attractiveness Ranking vs Gap (SmartCity vs AttractiveCity). Source: Author

The horizontal line at zero: Over that line, cities more Attractive than Smart; under that line, those Smarter than Attractive.

On the vertical axis, the orange line marks rank 100. Position 101, Milan (Italy), sets the midpoint in Attractiveness, so to the left are the cities classified as Advanced; to the right the Challenging, then Emerging, then Starters.

To the left, under the top arrow we find the Swiss cities, much more attractive than smart, with short smart city plans, but they don't need them either! However, they are reacting and realizing that they need to invest in technology to maintain that leadership. Just below that arrow and to the right we find many US and German cities, with very good attractiveness, but that should improve their SmartCity plan. We then reach the orange line that marks many South Europe cities, on the border with the challenging cities (Lisbon, Rome,..). On this same left side, at the bottom, we find the leading cities in SmartCity, those investing heavily to improve positions in Attractiveness (Copenhagen, Amsterdam, Helsinki, Valencia, Madrid, Singapore...) Here is where the main battle for Attractiveness is fought nowadays, with large investments in Digital Twins, citizen services, etc.

From the vertical orange line to the right, we see that most cities are at under the horizontal line: they are the Challengers, investing heavily in SmartCity plans to get promoted to the advanced group (Tel-Aviv, Chinese cities like Shanghai, and many from Eastern Europe like Tallinn...) If we advance to the right, then we enter the Emerging group first and the Starters at the right end, with Istanbul (IST) highlighted, then Latam (Montevideo), then Asia (Jakarta). We see that they all obtain better positions in SmartCity than in Attractiveness (most under the horizontal line), which indicates that they all use investments in SmartCity to improve their services for citizens, their image of modernity and their Attractiveness in general.

Therefore, as a general guideline, the SmartCities' plan fulfills its mission of improving citizen services (Profitability), while helping in strategy, reputation, branding (Magnetism) and becoming the most powerful tool to improve in Attractiveness. Little can be done about fixed issues like geolocation. Some cities with poor geo conditions and large investment capacity (Doha, Singapore, Dubai,..) are exploring the creating of a virtual city in the metaverse (a MetaCity), to capture virtual talent? Investments in changing or improving Identity are slow and always in the medium-long term. It is difficult to quickly improve economic conditions and net purchasing power. Therefore, the obvious lever, with more short-term results (even in a four-year legislature) is to invest heavily in a solid SmartCities plan. The cities that fail on this, have either fallen asleep in the leadership glory, (and are now waking up, like the Swiss, some German) or are losing positions and do not take advantage of excellent Magnetism to improve positions (some Southern Europe). On the other hand, cities with handicaps in Magnetism, either due to a lack of history (U.S.), weather conditions (Nordics) or long distances (AUS) compensate with good SmartCity & Services plans that improve their attractiveness to leadership positions. Cities with strong "European" Magnetism, but strong SmartCity investment while keeping cost of housing under control are soaring, like Valencia, Zaragoza.

Finally, at figure 9 Attractive Cities vs SmartCities by GDP, we can see that investing in SmartCities is quite independent from GDP, so all cities can invest resources on creating and executing a compelling SmartCity plan. This will improve Attractiveness, and if investment is done rationally, progress can be very significant with a moderate cost (we have seen great progress in Latam Cities with very reasonable budgets, but wise investments). On the other hand, Attractiveness is more directly dependent on GDP, so everything that could contribute to improving it counts and is welcome (including the improvement in talent and investors' investment because of an increase in awareness due to a brilliant SmartCity plan). So, we are circling around same concept. As a conclusion, all areas are intertwined, and a balanced plan will touch the most-effective levers.

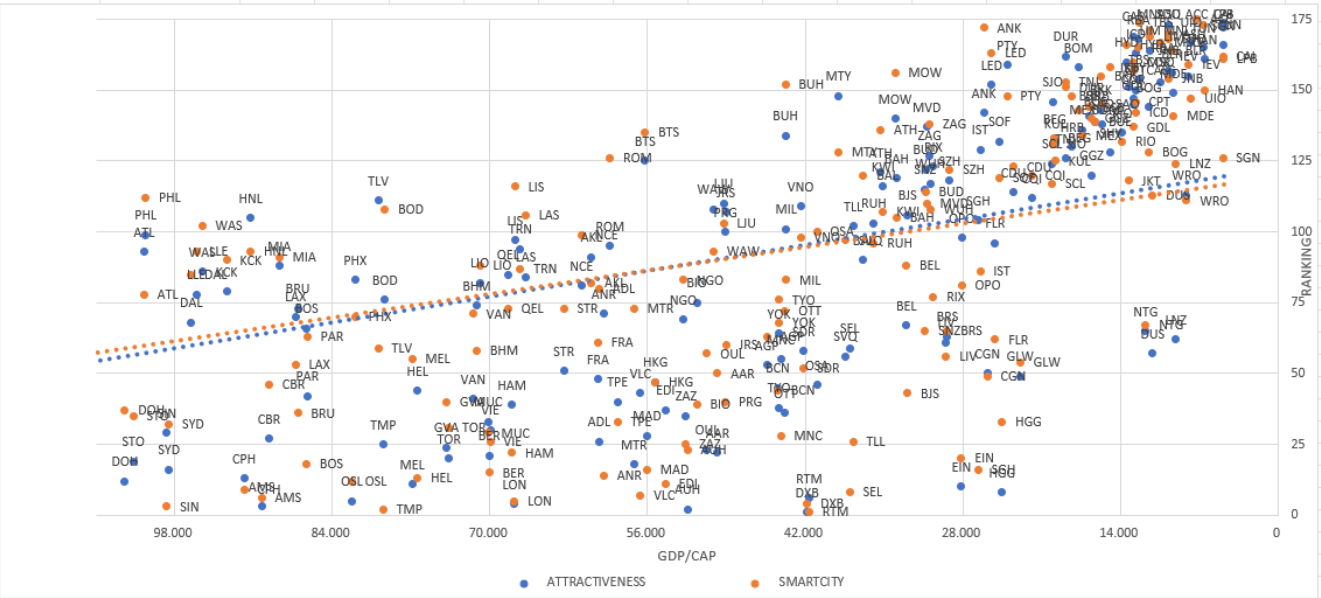


Figure 9. Attractive Cities vs SmartCities by GDP. Source: Author

6.7 Attractive Cities. Comparing 2026 vs 2025-2020 Results.

If we look at the evolution of cities during these 7 consecutive years of analysis, we can conclude that the main positive driver has been the continuous investment in technology, while keeping the cost of living under control. This is the case of UAE, the 4 Asian tigers, Spain (especially the cities with leadership in investment in SmartCities, such as Valencia, Madrid, and recently, Zaragoza, Malaga and Santander), the Benelux (maintaining strong leadership in technology applied to cities), as well as Finland and Japan. Norway and Denmark do not grow because they were already in leadership positions. In the part of decline in these years, we can put inflation as the main driver, strongly impacting the USA, AUS, CAN and NZ. SWE fall is due to the slowdown in the adoption of Cloud technologies and artificial intelligence due to excessive regulation, without finding effective ways to maintain technological leadership while preserving digital rights. You cannot go against the current, especially in technology, when the whole world is in a process of constant acceleration. In 2022, we saw the positive impact from the rapid recovery of pre-pandemic GDP in the US and other countries (OECD, 2021). However, the effect of inflation has been very important in the US, CAN, AUS, NZ. In the 18 American cities studied, the rankings have fallen significantly. The US IRA Plan was a great support, but it came late (August 2022), its impact on employment and economic recovery is yet to be demonstrated and now has been cancelled by President Trump. What is clear is that it did not encourage the adoption of technology as the European plan did, where 20% was to be invested in technological modernization.

City	Country	AREA	RK26	RK25	DIFF 26-25	TREND
Abu Dhabi	United Arab E	Middle East	2	4	2	106
Dubai	United Arab E	Middle East	1	1	0	104
Doha	Qatar	Middle East	12	96	84	100
Taipei	Taiwan	China Extended	40	32	-8	64
Singapore	Singapore	Asia-Pacific	29	37	8	51
Den Haag	Netherlands	Western Europe	8	11	3	49
Hong Kong	Hong Kong	China Extended	47	73	26	48
Riyadh	Saudi Arabia	Middle East	103	122	19	47
Madrid	Spain	Western Europe	28	12	-16	45
Zaragoza	Spain	Western Europe	35	38	3	44
Tampere	Finland	Western Europe	25	45	20	42
Osaka	Japan	Asia-Pacific	46	24	-22	40
Oulu	Finland	Western Europe	23	59	36	40
Shenzhen	China	China Extended	115	121	6	30
Wuhan	China	China Extended	117	123	6	26
Luxembourg	Luxembourg	Western Europe	7	23	16	25
Santander	Spain	Western Europe	58	78	20	25
London	United Kingd	Western Europe	4	21	17	24
Guangzhou	China	China Extended	120	128	8	24
Chengdu	China	China Extended	114	118	4	24
Harbin	China	China Extended	130	134	4	24
Eindhoven	Netherlands	Western Europe	10	19	9	23
Beijing	China	China Extended	106	116	10	20
Nagoya	Japan	Asia-Pacific	69	63	-6	20
Málaga	Spain	Western Europe	53	62	9	19
Amsterdam	Netherlands	Western Europe	3	3	0	18
Paris	France	Western Europe	42	47	5	18
Chongqing	China	China Extended	112	124	12	18
Tokyo	Japan	Asia-Pacific	38	17	-21	17
Bilbao	Spain	Western Europe	75	89	14	15

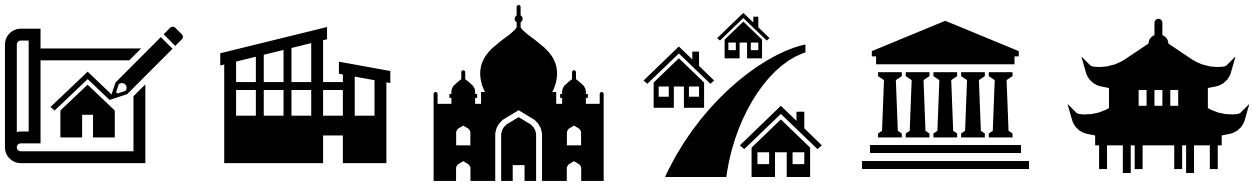
City	Country	AREA	RK26	RK25	DIFF 26-25	TREND
Phoenix	United States	North America	83	76	-7	-68
Kansas City	United States	North America	79	75	-4	-66
Denver	United States	North America	89	81	-8	-64
Wellington	New Zealand	Asia-Pacific	85	97	12	-55
Atlanta	United States	North America	93	82	-11	-54
Houston	United States	North America	80	69	-11	-43
Chicago	United States	North America	77	80	3	-41
Auckland	New Zealand	Asia-Pacific	91	98	7	-40
Honolulu	United States	North America	105	103	-2	-39
Miami	United States	North America	88	77	-11	-32
Bern	Switzerland	Western Europe	34	33	-1	-30
Dallas	United States	North America	68	68	0	-30
Manchester	United Kingd	Western Europe	55	36	-19	-29
Córdoba	Argentina	LatinAmerica	147	153	6	-29
Washington, D	United States	North America	86	72	-14	-28
Philadelphia	United States	North America	99	92	-7	-28
Los Angeles	United States	North America	70	55	-15	-26
Baltimore	United States	North America	90	84	-6	-26
Adelaide	Australia	Asia-Pacific	26	64	38	-24
Buenos Aires	Argentina	LatinAmerica	139	144	5	-24
Basel	Switzerland	Western Europe	32	34	2	-23
St Petersburg	Russia	CE Europe	152	138	-14	-23
Santiago	Chile	LatinAmerica	124	117	-7	-22
Cologne	Germany	Western Europe	50	42	-8	-21
Gothenburg	Sweden	Western Europe	31	67	36	-21
Moscow	Russia	CE Europe	140	131	-9	-20
Tel Aviv	Israel	Middle East	111	107	-4	-19
Vienna	Austria	Western Europe	30	15	-15	-16
Hamburg	Germany	Western Europe	39	20	-19	-16
Seattle	United States	North America	92	83	-9	-16

Figure 10. Comparing 2026 vs 2025 and Trend 26->20, BEST30 vs WORST30

In the list of winners, we see a strong rise of Japan. After the pandemic, its economy grew by 2.2% percent in the second quarter of 2022, the fastest in 12 years, making the years of stagnation be forgotten. But we think the key is over technological development: Japan advanced its vision of Society 5.0, a human-centered society that balances economic advancement with solving social problems through a system that highly integrates cyberspace and physical space. Japan is investing 120 byen in R&D over five years starting from fiscal 2021, focusing on key technologies such as artificial intelligence, quantum technology, IoT, and biotechnology. (Bloomberg, 2023), with Osaka's 2025 World Expo as flagship. Notably, the traditional social challenges it faces, such as population aging and gender inequality, are being firmly addressed. The major cities that have gained notable positions are European, with Benelux, Spain, Germany and Finland. In terms of technology, Germany launched its new digital strategy for the next three years in August 2021, with the aim of boosting its digital sovereignty, innovation and competitiveness. The strategy includes 18 initiatives to invest in technologies (Delcker, 2022). The United Arab Emirates is surprising the world in terms of investment in technology and extraordinary economic proposition, which compensate for its problems with cultural and environmental attractiveness. Its constant investment in international events positions it internationally. In addition, it is immune to fluctuations in the energy crisis. Southern Europe is gaining ground, but only Spain and France achieve a real improvement due to investment in technology and in the case of Spain, it is still affordable in medium-sized cities. In any case, the extraordinary magnetism of southern Europe compensates its tax hell that hinders its attractiveness for talent. China improves due to technology. Latam, Africa and India maintain the worst positions and increase the gap with the Challengers (CEE, Middle East).

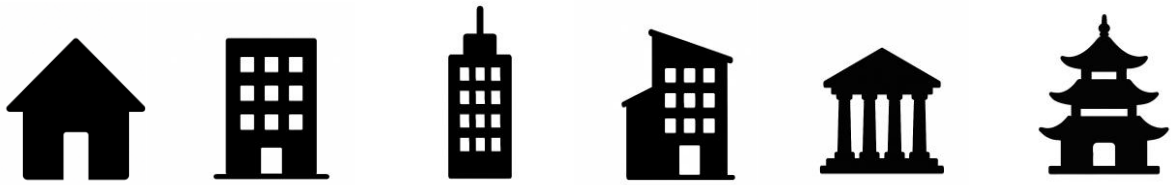
City	Country	AREA	RK26	RK25	DIFF 26-25	TREND	MAG-RK2	MAG-RK2	DIFF 26-2	TREND	PROF-RK2	PROF-RK2	DIFF 25-2	TREND
Dubai	United Arab E	Middle East	1	1	0	104	76	72	-4	34	3	1	-2	97
Abu Dhabi	United Arab E	Middle East	2	4	2	106	104	99	-5	21	1	2	1	98
Amsterdam	Netherlands	Western Europe	3	3	0	18	2	1	-1	1	17	24	-4	35
London	United Kingd	Western Europe	4	21	17	24	1	2	1	0	25	68	31	47
Oslo	Norway	Western Europe	5	2	-3	6	13	12	-1	0	10	6	-6	6
Rotterdam	Netherlands	Western Europe	6	9	3	12	7	11	4	11	15	20	-5	14
Luxembourg	Luxembourg	Western Europe	7	23	16	25	54	28	-26	-3	4	28	2	30
Den Haag	Netherlands	Western Europe	8	11	3	49	18	19	1	11	16	11	-9	52
Zurich	Switzerland	Western Europe	9	6	-3	-6	6	6	0	20	30	14	12	-27
Eindhoven	Netherlands	Western Europe	10	19	9	23	29	40	11	3	11	12	-2	28
Melbourne	Australia	Asia-Pacific	11	16	5	-10	46	21	-25	-38	7	19	36	-1
Doha	Qatar	Middle East	12	96	84	100	125	116	-9	12	2	38	78	92
Copenhagen	Denmark	Western Europe	13	5	-8	6	3	4	1	3	36	16	-20	7
Stavanger	Norway	Western Europe	14	8	-6	8	23	31	8	-3	20	5	-15	5
Bergen	Norway	Western Europe	15	10	-5	12	24	44	20	14	18	7	-10	7
Sydney	Australia	Asia-Pacific	16	25	9	-8	31	23	-8	-20	19	33	32	-5
Malmo	Sweden	Western Europe	17	58	41	0	16	36	20	15	26	74	52	-8
Montreal	Canada	North America	18	29	11	-11	69	68	-1	-42	6	8	5	2
Stockholm	Sweden	Western Europe	19	43	24	-14	11	13	2	-7	37	75	44	-24
Toronto	Canada	North America	20	18	-2	0	30	43	13	-25	24	9	-9	20
Berlin	Germany	Western Europe	21	7	-14	-15	8	9	1	4	44	10	-30	-33
Aarhus	Denmark	Western Europe	22	14	-8	9	12	14	2	2	40	29	-10	14
Oulu	Finland	Western Europe	23	59	36	40	57	65	8	-22	14	56	54	59
Geneva	Switzerland	Western Europe	24	27	3	-8	17	17	0	50	35	46	6	-26
Tampere	Finland	Western Europe	25	45	20	42	33	52	19	12	28	45	25	45
Adelaide	Australia	Asia-Pacific	26	64	38	-24	82	89	7	-52	9	49	66	-7
Canberra	Australia	Asia-Pacific	27	65	38	-15	70	73	3	8	13	61	77	-8
Madrid	Spain	Western Europe	28	12	-16	45	4	3	-1	19	57	54	-18	24
Singapore	Singapore	Asia-Pacific	29	37	8	51	56	48	-8	12	21	30	-3	58
Vienna	Austria	Western Europe	30	15	-15	-16	9	10	1	1	51	36	-17	-20
Gothenburg	Sweden	Western Europe	31	67	36	-21	20	24	4	22	43	83	50	-33
Basel	Switzerland	Western Europe	32	34	2	-23	36	56	20	30	33	26	25	-29
Munich	Germany	Western Europe	33	13	-20	7	21	16	-5	16	42	21	-30	6
Bern	Switzerland	Western Europe	34	33	-1	-30	28	53	25	37	38	27	-3	-37
Zaragoza	Spain	Western Europe	35	38	3	44	27	42	15	22	39	41	-20	45
Ottawa	Canada	North America	36	51	15	-12	84	100	16	-40	12	15	26	9
Edinburgh	United Kingd	Western Europe	37	22	-15	-3	10	15	5	30	55	48	-5	-19
Tokyo	Japan	Asia-Pacific	38	17	-21	17	48	26	-22	4	31	18	17	26
Hamburg	Germany	Western Europe	39	20	-19	-16	15	27	12	10	49	23	-25	-25
Taipei	Taiwan	China Extended	40	32	-8	64	106	113	7	-8	5	3	-2	104
Vancouver	Canada	North America	41	44	3	9	77	87	10	-24	22	13	1	28
Paris	France	Western Europe	42	47	5	18	5	5	0	-3	78	84	-4	11
Valencia	Spain	Western Europe	43	30	-13	3	26	22	-4	8	47	44	-21	12
Helsinki	Finland	Western Europe	44	39	-5	8	25	25	0	-4	50	57	12	17
Barcelona	Spain	Western Europe	45	26	-19	8	14	8	-6	-5	68	65	-24	14
Osaka	Japan	Asia-Pacific	46	24	-22	40	101	102	1	0	8	4	9	50
Hong Kong	Hong Kong	China Extended	47	73	26	48	86	92	6	-5	23	53	17	78
Frankfurt	Germany	Western Europe	48	28	-20	-13	40	29	-11	18	52	32	-25	-22
Glasgow	United Kingd	Western Europe	49	48	-1	-1	47	60	13	9	46	42	-1	-1
Cologne	Germany	Western Europe	50	42	-8	-21	22	41	19	14	66	50	-30	-33
Stuttgart	Germany	Western Europe	51	35	-16	-8	35	45	10	28	59	31	-38	-24
Espoo	Finland	Western Europe	52	60	8	-11	42	51	9	-27	58	72	15	2
Málaga	Spain	Western Europe	53	62	9	19	41	63	22	7	60	66	-6	15
New York City	United States	North America	54	54	0	-12	19	7	-12	-12	79	86	-3	-1
Manchester	United Kingd	Western Europe	55	36	-19	-29	38	33	-5	-21	69	47	-38	-32
Seville	Spain	Western Europe	56	74	18	5	59	83	24	-26	48	59	9	21
Dusseldorf	Germany	Western Europe	57	41	-16	-12	61	76	15	30	53	22	-28	-33
Santander	Spain	Western Europe	58	78	20	25	60	77	17	-6	54	71	6	33

Figure 11a. Attractiveness (Magnetism – Profitability) Comparison 26 vs 25 and Trending 26→20. Source: Author



City	Country	AREA	RK26	RK25	DIFF 26-25	TREND	MAG-RK2	MAG-RK2	DIFF 26-2	TREN	PROF-RK2	PROF-RK2	DIFF 25-2	TREN
Seoul	South Korea	Asia-Pacific	59	31	-28	-10	45	30	-15	-29	71	34	-2	0
Dublin	Ireland	Western Europe	60	52	-8	5	32	37	5	7	77	70	-7	0
Liverpool	United Kingd	Western Europe	61	40	-21	-14	51	46	-5	28	64	39	-5	-32
Linz	Austria	Western Europe	62	61	-1	12	93	78	-15	-24	34	52	18	27
Bristol	United Kingd	Western Europe	63	56	-7	-9	49	64	15	15	70	55	-37	-28
Yokohama	Japan	Asia-Pacific	64	46	-18	14	92	80	-12	2	41	25	23	15
Nottingham	United Kingd	Western Europe	65	71	6	5	64	71	7	16	62	67	-34	-7
Boston	United States	North America	66	70	4	-4	44	20	-24	6	84	88	4	-21
Belfast	United Kingd	Western Europe	67	49	-18	2	52	70	18	31	76	35	-39	-25
Dallas	United States	North America	68	68	0	-30	90	74	-16	-4	45	64	4	-26
Nagoya	Japan	Asia-Pacific	69	63	-6	20	105	106	1	-5	27	17	28	37
Los Angeles	United States	North America	70	55	-15	-26	34	18	-16	7	88	78	-6	-35
Antwerp	Belgium	Western Europe	71	50	-21	6	37	34	-3	45	89	69	-26	-27
San Francisco	United States	North America	72	79	7	3	39	35	-4	-20	90	90	-11	-4
Brussels	Belgium	Western Europe	73	57	-16	14	43	39	-4	44	91	73	-25	-11
Birmingham	United Kingd	Western Europe	74	53	-21	-15	58	69	11	19	81	43	-35	-41
Bilbao	Spain	Western Europe	75	89	14	15	74	82	8	-13	75	80	9	16
Bordeaux	France	Western Europe	76	93	17	9	67	66	-1	-10	83	99	3	5
Chicago	United States	North America	77	80	3	-41	50	32	-18	-26	92	91	24	-46
Lille	France	Western Europe	78	100	22	10	72	84	12	2	82	104	12	3
Kansas City	United States	North America	79	75	-4	-66	89	91	2	-67	63	58	-2	-48
Houston	United States	North America	80	69	-11	-43	88	79	-9	0	67	60	-35	-50
Nice	France	Western Europe	81	91	10	3	65	75	10	-18	85	87	4	5
Lyon	France	Western Europe	82	88	6	-14	53	49	-4	-7	94	97	-17	-18
Phoenix	United States	North America	83	76	-7	-68	99	97	-2	-14	56	51	-27	-49
Las Vegas	United States	North America	84	66	-18	-2	97	94	-3	-5	61	40	-39	5
Wellington	New Zealand	Asia-Pacific	85	97	12	-55	87	101	14	-32	74	93	29	-47
Washington, D	United States	North America	86	72	-14	-28	63	47	-16	-35	93	76	-22	-23
Marseille	France	Western Europe	87	86	-1	-6	62	58	-4	-3	95	89	-8	-12
Miami	United States	North America	88	77	-11	-32	83	55	-28	-7	87	77	-22	-49
Denver	United States	North America	89	81	-8	-64	95	95	0	-24	72	63	-52	-60
Baltimore	United States	North America	90	84	-6	-26	100	103	3	-3	73	62	25	-51
Auckland	New Zealand	Asia-Pacific	91	98	7	-40	94	96	2	-32	80	96	24	-39
Seattle	United States	North America	92	83	-9	-16	71	61	-10	2	97	81	-25	-32
Atlanta	United States	North America	93	82	-11	-54	73	54	-19	-3	98	82	-15	-70
Torino	Italy	Western Europe	94	101	7	5	96	104	8	-1	86	100	6	18
Rome	Italy	Western Europe	95	87	-8	-1	66	62	-4	-6	102	92	-11	3
Florence	Italy	Western Europe	96	95	-1	0	68	67	-1	4	103	101	-6	0
Lisbon	Portugal	Western Europe	97	90	-7	4	78	50	-28	6	99	98	0	13
Porto	Portugal	Western Europe	98	102	4	0	75	81	6	0	101	105	-1	7
Philadelphia	United States	North America	99	92	-7	-28	91	59	-32	-2	96	95	-29	-47
Prague	Czech Republ	CE Europe	100	85	-15	-3	55	38	-17	35	109	94	-8	-11
Milan	Italy	Western Europe	101	94	-7	-10	79	57	-22	-36	104	102	-8	-7
Tallinn	Estonia	CE Europe	102	99	-3	-2	85	85	0	19	106	103	-4	-10
Riyadh	Saudi Arabia	Middle East	103	122	19	47	136	144	8	38	32	111	78	70
Shanghai	China	China Extended	104	115	11	15	80	86	6	26	118	126	5	24
Honolulu	United States	North America	105	103	-2	-39	109	112	3	-10	100	85	-15	-77
Beijing	China	China Extended	106	116	10	20	81	93	12	40	119	127	3	22
Jerusalem	Israel	Middle East	107	105	-2	-14	102	88	-14	-9	112	113	-3	-17
Warsaw	Poland	CE Europe	108	108	0	-1	98	98	0	11	115	115	-2	-5
Vilnius	Lithuania	CE Europe	109	119	10	0	110	111	1	1	108	130	22	5
Ljubljana	Slovenia	CE Europe	110	104	-6	-7	112	107	-5	-10	107	106	-2	-1
Tel Aviv	Israel	Middle East	111	107	-4	-19	111	105	-6	-15	110	112	-3	-17
Chongqing	China	China Extended	112	124	12	18	118	121	3	22	105	132	19	20
Wroclaw	Poland	CE Europe	113	113	0	-7	107	109	2	-2	120	116	-5	-13
Chengdu	China	China Extended	114	118	4	24	113	119	6	36	117	117	2	8
Shenzhen	China	China Extended	115	121	6	30	116	126	10	42	114	121	3	22
Kuwait City	Kuwait	Middle East	116	111	-5	-3	155	150	-5	15	29	37	18	18

Figure 11b. Attractiveness (Magnetism – Profitability) Comparison 26 vs 25 and Trending 26→20. Source: Author



Wuhan	China	China Extended	117	123	↑	6	↑	26	123	130	↑	7	↑	31	111	118	↑	9	↑	18
Suzhou	China	China Extended	118	126	↑	8	↑	13	119	124	↑	5	↑	15	116	128	↑	23	↑	13
Manama	Bahrain	Middle East	119	114	↓	-5	↑	6	144	142	↓	-2	↑	18	65	79	↑	30	↑	46
Guangzhou	China	China Extended	120	128	↑	8	↑	24	122	129	↑	7	↑	38	113	123	↑	5	↑	14
Athens	Greece	CE Europe	121	109	↓	-12	↓	-11	108	114	↑	6	→	0	124	107	↓	-16	↓	-10
Budapest	Hungary	CE Europe	122	112	↓	-10	↓	-11	103	90	↓	-13	→	0	129	119	↓	-8	↓	-10
Riga	Latvia	CE Europe	123	110	↓	-13	↓	-7	115	110	↓	-5	↑	8	123	110	↓	-11	↓	-8
Santiago	Chile	LatinAmerica	124	117	↓	-7	↓	-22	120	123	↑	3	↓	-4	121	114	↓	-7	↓	-29
Bratislava	Slovakia	CE Europe	125	129	↑	4	↓	-11	128	118	↓	-10	↓	-13	122	137	↑	18	↓	-5
Tianjin	China	China Extended	126	127	↑	1	↑	11	124	131	↑	7	↑	15	126	120	↑	1	↑	8
Zagreb	Croatia	CE Europe	127	120	↓	-7	↓	-10	117	115	↓	-2	↑	5	130	133	↓	-2	↓	-10
Shenyang	China	China Extended	128	135	↑	7	↑	4	131	135	↑	4	↑	13	127	131	↓	-2	↓	-4
Istanbul	Turkey	Middle East	129	106	↓	-23	↓	-6	114	108	↓	-6	↑	5	137	108	↓	-31	↓	-4
Harbin	China	China Extended	130	134	↑	4	↑	24	135	138	↑	3	↑	32	125	122	→	0	↑	4
Kuala Lumpur	Malaysia	Asia-Pacific	131	137	↑	6	↓	-4	134	136	↑	2	↑	9	128	129	↑	3	↓	-6
Sofia	Bulgaria	CE Europe	132	130	↓	-2	↓	-10	121	120	↓	-1	↓	-7	133	139	↓	-4	↑	2
Belgrade	Serbia	CE Europe	133	136	↑	3	↑	7	126	122	↓	-4	↓	-8	141	147	↑	4	↑	8
Bucharest	Romania	CE Europe	134	133	↓	-1	↓	-13	132	127	↓	-5	↓	-5	138	134	↓	-6	↓	-17
Rio de Janeiro	Brazil	LatinAmerica	135	140	↑	5	→	0	133	134	↑	1	↓	-20	140	144	↑	10	↑	8
Mexico City	Mexico	LatinAmerica	136	132	↓	-4	↓	-12	129	117	↓	-12	↓	-17	146	143	↓	-3	↓	-2
Montevideo	Uruguay	LatinAmerica	137	139	↑	2	↓	-9	130	125	↓	-5	↑	3	147	149	↓	-1	↓	-19
Sao Paulo	Brazil	LatinAmerica	138	142	↑	4	↓	-4	137	141	↑	4	↓	-17	139	141	↑	10	↑	6
Buenos Aires	Argentina	LatinAmerica	139	144	↑	5	↓	-24	127	128	↑	1	↓	-10	154	152	↓	-12	↓	-38
Moscow	Russia	CE Europe	140	131	↓	-9	↓	-20	147	132	↓	-15	↓	-40	131	124	↑	5	↑	9
Brasilia	Brazil	LatinAmerica	141	148	↑	7	→	0	143	156	↑	13	↓	-7	135	142	↑	12	↑	8
Ankara	Turkey	Middle East	142	125	↓	-17	↓	-6	146	149	↑	3	↑	1	134	109	↓	-23	↓	-10
Bangkok	Thailand	Asia-Pacific	143	143	→	0	↑	6	138	133	↓	-5	↓	-3	148	148	↑	3	↑	6
Bogota	Colombia	LatinAmerica	144	146	↑	2	↑	3	140	140	→	0	↓	-16	145	145	↓	-1	↑	13
Guadalajara	Mexico	LatinAmerica	145	141	↓	-4	↓	-12	145	139	↓	-6	↓	-14	143	136	↓	-9	↓	-4
San José	Costa Rica	LatinAmerica	146	147	↑	1	↑	2	142	151	↑	9	↑	10	149	146	↓	-16	↓	-3
Córdoba	Argentina	LatinAmerica	147	153	↑	6	↓	-29	139	148	↑	9	↓	-11	151	151	↓	-3	↓	-33
Monterrey	Mexico	LatinAmerica	148	145	↓	-3	↓	-9	151	145	↓	-6	↓	-13	142	138	↓	-4	↓	-5
Medellín	Colombia	LatinAmerica	149	152	↑	3	↑	2	154	165	↑	11	↓	-9	144	140	↓	-3	↑	7
Cape Town	South Africa	Africa	150	151	↑	1	↑	7	141	137	↓	-4	↓	-12	160	157	↓	-3	↑	11
Jakarta	Indonesia	Asia-Pacific	151	154	↑	3	↑	13	148	147	↓	-1	↓	-16	156	158	↓	-2	↑	19
St Petersburg	Russia	CE Europe	152	138	↓	-14	↓	-23	165	146	↓	-19	↓	-39	136	125	↑	1	↑	2
Minsk	Belarus	CE Europe	153	149	↓	-4	↓	-11	169	160	↓	-9	↓	-21	132	135	↑	3	→	0
Tbilisi	Georgia	CE Europe	154	156	↑	2	↓	-2	157	155	↓	-2	→	0	153	155	↑	2	↓	-6
Kiev	Ukraine	CE Europe	155	150	↓	-5	↓	-9	161	143	↓	-18	↓	-31	150	150	↑	6	↑	2
Bangalore	India	India Extended	156	164	↑	8	↑	9	152	157	↑	5	↑	11	161	172	↑	12	↓	-1
Johannesburg	South Africa	Africa	157	155	↓	-2	↑	5	153	153	→	0	↓	-11	162	156	↓	-3	↑	7
Mumbai	India	India Extended	158	169	↑	11	↑	3	150	158	↑	8	↑	5	168	174	↑	3	↓	-5
Panama City	Panama	LatinAmerica	159	158	↓	-1	↓	-6	159	161	↑	2	↓	-18	159	154	↓	-7	↓	-6
Hyderabad	India	India Extended	160	170	↑	10	↑	8	156	167	↑	11	↑	15	163	171	↑	7	↓	-8
Hanoi	Vietnam	Asia-Pacific	161	162	↑	1	↑	5	164	166	↑	2	↓	-8	152	161	↑	9	↑	14
Durban	South Africa	Africa	162	157	↓	-5	↓	-2	162	162	→	0	↓	-12	158	153	↓	-5	↑	7
New Delhi	India	India Extended	163	166	↑	3	↓	-5	149	154	↑	5	↑	10	172	175	↑	3	↓	-15
Lima	Peru	LatinAmerica	164	160	↓	-4	↓	-5	160	164	↑	4	↓	-9	166	160	↓	-8	↓	-4
Tunis	Tunisia	Africa	165	161	↓	-4	↑	2	158	152	↓	-6	↑	7	167	168	↓	-3	↓	-6
Ho Chi Minh Ci	Vietnam	Asia-Pacific	166	165	↓	-1	↑	5	167	168	↑	1	↑	1	155	163	↑	7	↑	9
Quito	Ecuador	LatinAmerica	167	159	↓	-8	↓	-12	163	159	↓	-4	↓	-10	164	159	↓	-4	↓	-8
Rabat	Morocco	Africa	168	168	→	0	↑	6	168	169	↑	1	↑	5	157	164	↑	11	↑	16
Casablanca	Morocco	Africa	169	163	↓	-6	→	0	166	163	↓	-3	↓	-5	165	165	↑	1	↑	7
Santo Doming	Dominican Re	LatinAmerica	170	172	↑	2	↓	-14	170	173	↑	3	↓	-6	170	166	↓	-3	↓	-20
Manila	Philippines	Asia-Pacific	171	173	↑	2	↓	-8	171	174	↑	3	↓	-25	173	169	↓	-4	↓	-5
Cairo	Egypt	Middle East	172	171	↓	-1	→	0	172	171	↓	-1	↓	-6	171	167	↑	1	↑	3
Asuncion	Paraguay	LatinAmerica	173	167	↓	-6	→	0	173	170	↓	-3	↓	-1	169	162	↓	-6	↑	1
La Paz	Bolivia	LatinAmerica	174	174	→	0	↓	-4	174	172	↓	-2	↓	-5	175	173	↓	-1	↓	-16
Accra	Ghana	Africa	175	175	→	0	→	0	175	175	→	0	→	0	174	170	↓	-9	↓	-7

Figure 11c. Attractiveness (Magnetism – Profitability) Comparison 26 vs 25 and Trending 26→20. Source: Author

6.8 Attractiveness vs Employability

The world is now, more than ever, being fueled by talent and human resources. With fast growing economies, and constant rivalry to be number one, cities are constantly racing to prosper both economically and socially.

However, with globalization, a great advantage rises for those who are talented (Parilla and Liu, 2019). A massive pool of opportunities from which to pick. Those wanting to develop their career in tech will probably try to work in Silicon Valley or Shanghai, while those interested in finance will aspire to grab a job in New York or London. (Haqqi, 2021)

As part of our model, we are interested in understanding to what extend the overall Attractiveness of a city impacts on its ability to attract talent. Although professional opportunities are a very strong attracter of human capital, we believe that a cities appeal is characterized by more than that.

Employability is extremely related to talent. Talent attraction is, together with profitability (high wages, low taxes) what makes Cities topping our Attractiveness ranking. One of our points of interest arising from this study was to find out whether a city's attractiveness influences in any way the amount of talent the city attracts.

To analyze this, we have combined two sources with same weight. On one hand, the World Bank employment to population ratio 2025, as a proxy to know the easiness to find skilled employees and talented educated citizens in a city. On the other hand, we take LinkedIn Talent Insights report for each studied Metropolitan Area. This report gives us three main indicators to be equally weighted and combined. First, Hiring Demand (measuring the level of activity from recruiters in the area in the past 12 months), then % Jobs posted vs Total amount of professionals (measuring the jobs availability in the area), then Talent net flow (Professionals won or lost in the past 12 months vs total). These three indicators really offer a picture of employability situation in that area, based on the activity from demand and offer, and net talent win or loss. Only creative professionals have been studied (according to Pf. Florida's approach). Let's look at top25 at Figure 12.

City	Country	LinkedIN Talent Insights NOR	Employability WB NOR	Employability NOR
Luxembourg	Luxembourg	10,00	5,57	10,00
Dallas	United States	9,79	5,92	9,89
Bangalore	India	9,97	4,59	9,75
Linz	Austria	8,27	5,38	8,37
Dubai	United Arab En	5,71	9,97	7,07
Abu Dhabi	United Arab En	5,71	9,97	7,07
Nagoya	Japan	5,93	6,55	6,49
Geneva	Switzerland	5,73	6,92	6,39
Riyadh	Saudi Arabia	5,65	6,83	6,30
Doha	Qatar	4,50	10,00	5,97
Singapore	Singapore	4,91	7,88	5,86
Osaka	Japan	5,05	6,55	5,68
Zurich	Switzerland	4,34	6,92	5,11
Dusseldorf	Germany	4,54	5,74	5,03
Hamburg	Germany	4,45	5,74	4,94
Hyderabad	India	4,71	4,59	4,92
Dublin	Ireland	4,17	6,54	4,87
New York City	United States	4,32	5,92	4,87
San Francisco	United States	4,23	5,92	4,78
Basel	Switzerland	3,96	6,92	4,77
Prague	Czech Republic	3,96	5,81	4,51
Marseille	France	4,22	4,10	4,36
Bangkok	Thailand	3,21	7,53	4,22
Chicago	United States	3,42	5,92	4,04
Kuwait City	Kuwait	2,68	8,81	4,02
Tel Aviv	Israel	3,12	6,85	3,98
Tbilisi	Georgia	3,46	5,33	3,94
Guangzhou	China	3,05	6,48	3,83
Shenzhen	China	3,05	6,48	3,83
Ottawa	Canada	3,12	6,13	3,81

Figure 12. City Employability. TOP 25 Source: Author

Employability is led by Western European cities and UAE, followed by the most innovative cities in the US, Singapore, Qatar, Japan, Switzerland and India. Compared to last years, we find little changes, Europe (and especially Germany) continues to outperform the US, which was the clear winner in 2021, but fell in 2022 and has remained so in 2023 and 2024. Ongoing restructuring and layoffs at major US tech companies reduced talent attractiveness, while European stimulus boosted employment attractiveness in Northern Europe. It is worth noting the variability of this picture, which we can date back to 1 Jan 2026. The World Bank study uses data from 2024/25 and positions UAE, Asian Tigers and Switzerland. LinkedIn data is more current (Aug26) and reflects this shift between the US and Western Europe. Perhaps the average we indicated is true. However, as 2025/26 progress, we see the German locomotive slowing down and US technology companies strongly dominating the stock market, recovering hiring, mainly due to Tech companies. It's very relevant to notice the UAE strong employability traction due to Finance, real State and now Technology sectors.

We have analyzed the City Attractiveness by more than 100 indicators, including emotional and rational components. But, how much pure Employability is related to City Attractiveness? We have concluded that investors/companies go where talent is, no longer the other way around. So, a city well prepared and equipped with talent will attract investors which will make the city to thrive. McKinsey (Cassim et al, 2020) positioned workforce upskilling as one of four main growth plan factors for 2020-25, together with Green energy investment, Digitalization and new technologies and Resilience of supply chains and security of essential goods. They point to a 30% of potentially automatable tasks and a very waving demand patterns pushing to hundreds of millions of skilled workers to switch jobs. In this context, enjoying an over the average skilled population makes a city resilient to these fluctuations and competitive enough to leverage the new opportunities and growth potential.

But let's compare our Employability and Attractiveness results. In order to understand the relationship - between these two indexes. Final Correlation number R^2=0,12, which is low and means a lite association between the two concepts. Improving Employability (by improving citizen skilling) seems to be a clear driver for all cities over the average line, moving top right. For those performing better in Employability that in Attractiveness, other concepts described in our Observatory like Magnetism or Cost of life should be considered as the main levers to activate. (See figure 13). For the first time in 7 years analytics, we can conclude that Employabilty matters but it is clearly not a conclusive determinant for Attractiveness, strongly supporting the shift for companies to go where talent is and the other way around.

So, let's conclude that professional opportunities are not definite drivers when choosing a city, although they definitely help.

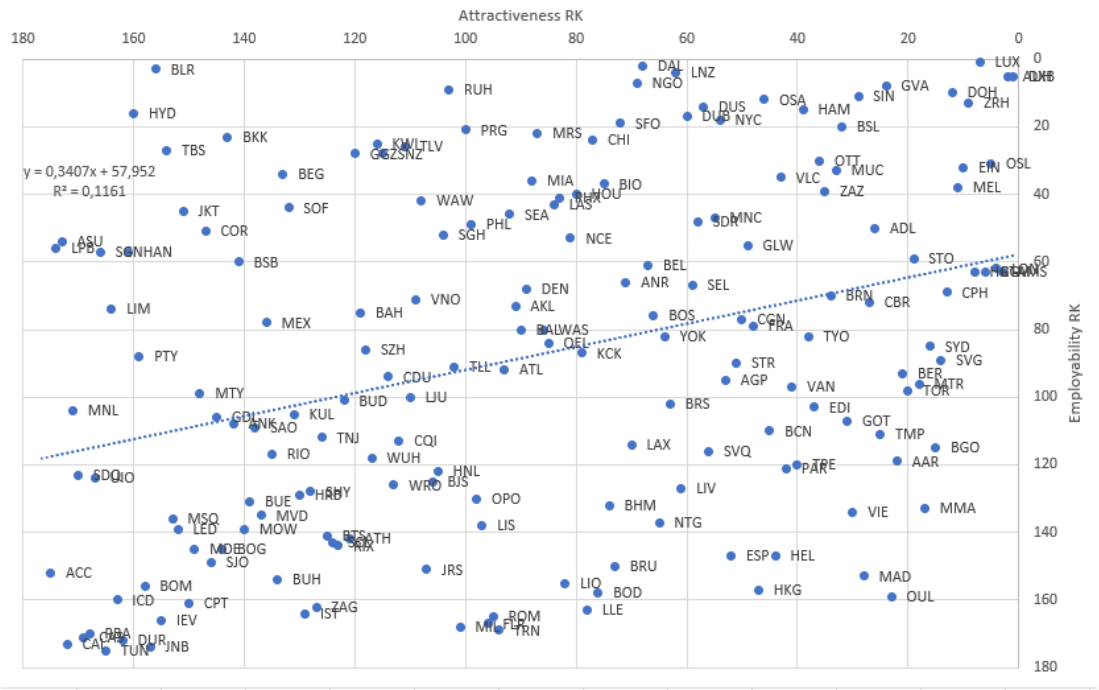


Figure 13. City Attractiveness vs Employability. Source: Author

7. Conclusions

7.1 Balancing City Magnetism and City Profitability

The key is to find a balance between transforming the essence of the city (its physical and virtual shape) while improving its benefits and services. The two aspects feed off of each other. A city's essence determines how the services provided should improve, while the new services have an impact on transforming the city's essence. The transition to an information- and knowledge-based economy represents both a revolution, due to its new acceleration and blistering speed, and a challenge as we try to balance the concept of an attractive and accessible city with social and environmental progress. (Van den Berg, Van de Meer, Oligaar, 2006)

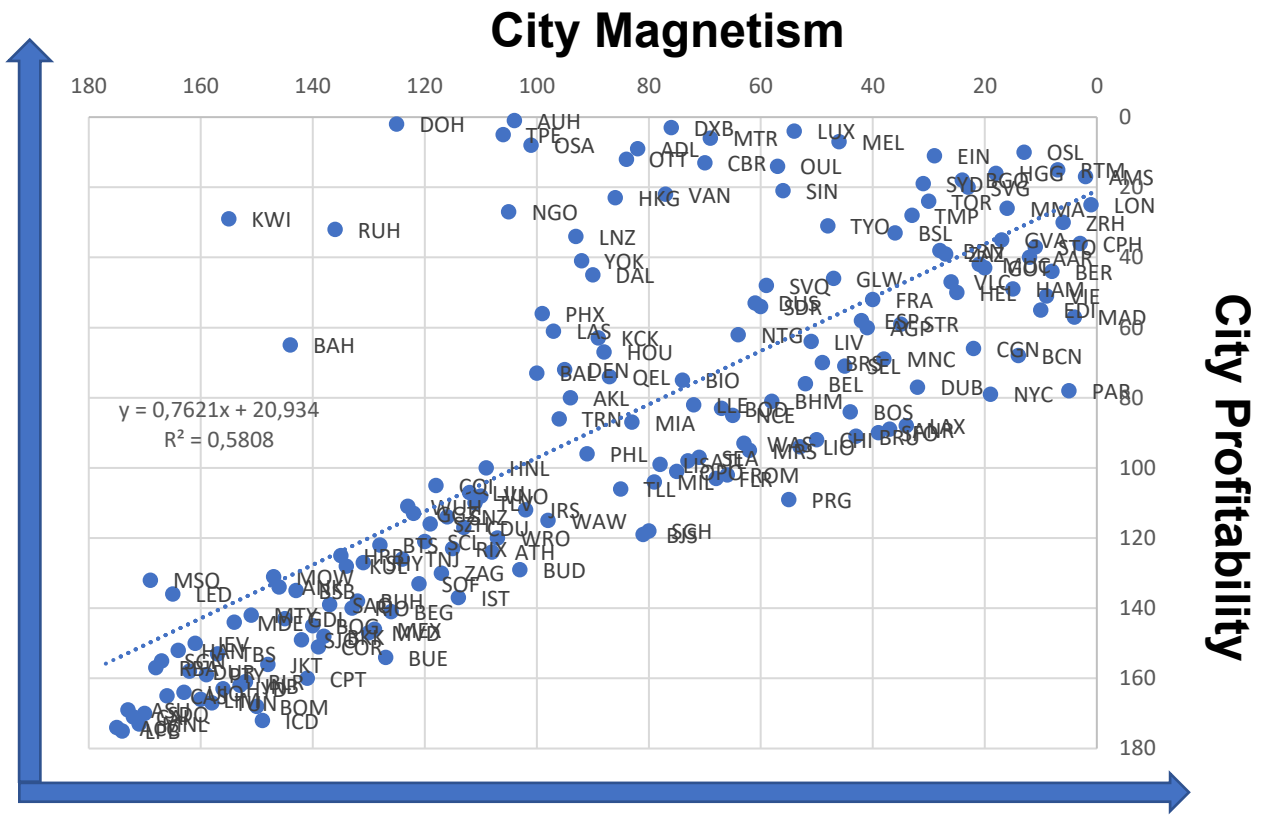


Figure 14. Balancing City Magnetism and City Profitability. Cities in UNLOCODE three letters nomination. Source: Author

The magic quadrant is in the upper right (see figures 14 and 15) where we find cities with top positions at Magnetism and Profitability. These are mainly cities in the Advanced area of the ranking. These cities compete hard day after day to stay there, to gain positions step by step, making a huge investment. The message for them is clear: keep investing, keep progressing.

In the lower left quadrant, we see cities with low magnetism and low profitability. These are Emerging and Starter cities. Our message is again clear: 'fix the basics'. In the upper left quadrant, we find cities with low magnetism but high profitability. They are mainly some less-than-magnetic US and Japanese cities, as well as some very industrial, German cities, UAE, Doha, Hong-Kong and Kuwait. They have the opportunity to improve and evolve and move into the magic quadrant if they invest in achieving social sustainability, improving their dynamism, cultivating their identity (they are massively doing), and designing an attractive future plan that is connected to their citizens. In the lower right quadrant, we find cities with high magnetism but low profitability. Those are iconic cities with a great identity but extraordinarily expensive like NewYork, Paris, London, Stockholm, Boston. Many Southern Europe cities must improve the provision of citizen services and the economic equation (taxes hell), or they run the risk of falling behind in overall attractiveness. This looks to be true of Italian and Portuguese cities with high Magnetism, but poor Profitability.

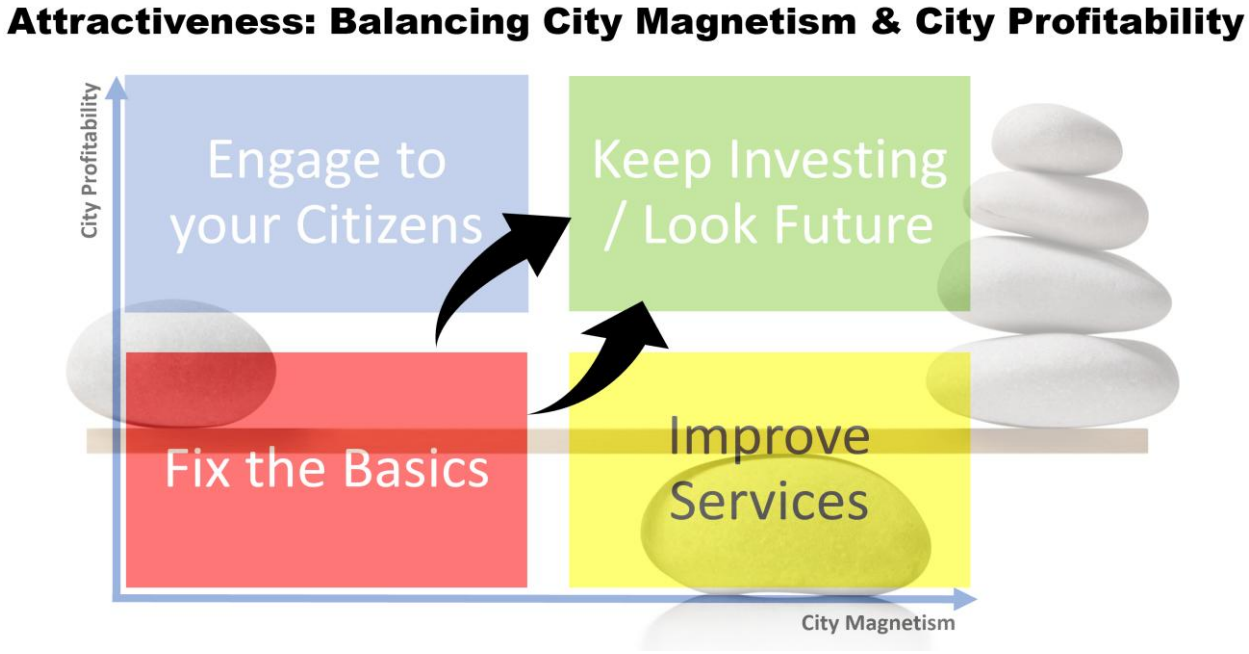


Figure 15. The balance between City Magnetism and City Profitability. Areas and Magic Quadrant. Source: Author

7.2 Cities of Future. The AI enabled City.

Technology has been and continues to be our faithful ally to respond to all these challenges. At the end of 2022 / beginning of 2023 we were spectators of an unprecedented technological revolution: the emergence of generative artificial intelligence (GenAI). This new technology broke all records in mass adoption with 100m users in just two months (1m in first 5 days!) (McKinsey, 2023). 2024 was the year of GenerativeAI incorporation in the development of our cities. 2025 brought advances in Digital Twins and some first steps on Agentic AI, mainly as evolution of RPAs (Robotic Process Automation – Not intelligent…) adaptation to automatize internal and external processes. We can consider artificial intelligence as an essential assistant to improve all our internal processes, relationships and communication with citizens, and analysis and prediction of physical and social events.

Accelerated technological adoption

These new announcements of disruptive technologies further accelerate the already accelerated incorporation of these innovations into our lives and the necessary processes of change (exponential or turbo boost technologies) (Diamandis & Kotler, 2020). We think that we are at a time in which many technological developments that have been perfected for years are going to reach a disruptive moment: virtual and augmented reality as the basis of the metaverse, 3D printing, digital twins, Blockchain, nanotechnologies, biotechnologies and neurotechnology, robotics, autonomous systems, 5G and 6G communications and a new era of artificial intelligence will, combined, bring new lifestyles and production systems that are extraordinarily efficient and respectful of the planet.

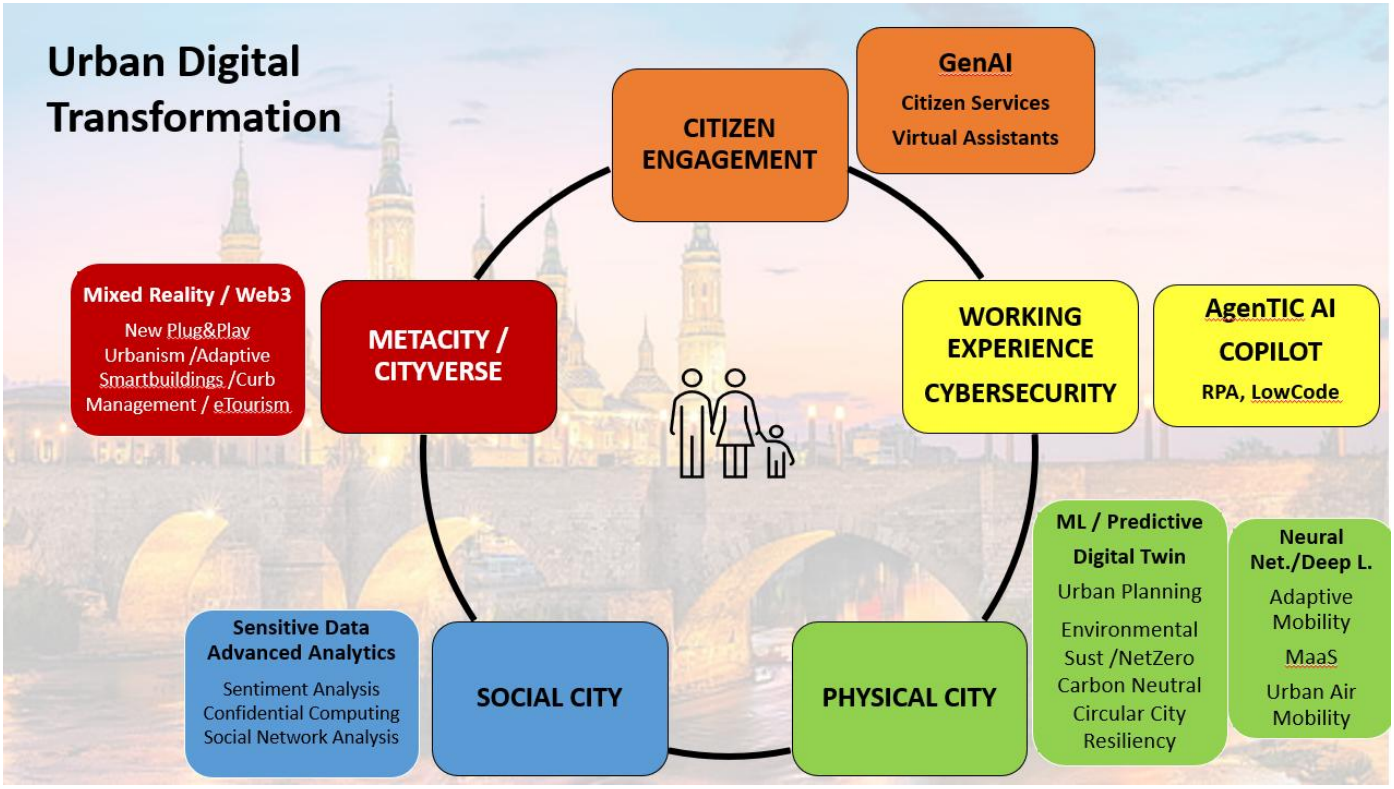


Figure 16. The AI enabled City. Source: Author

IA everywhere in the Digital Transformation Plan

A City Council's Digital Transformation Plan can take advantage of the latest technologies (and especially Artificial Intelligence) to develop a more inclusive, efficient, sustainable, innovative and attractive city for talent and investment.

Five areas of work stand out (Citizen services, internal Efficiency, Environmental management, Social Services and new technologies in MetaCity). Let's explore this mapping (see figure 16).

In this way, Improving communication and electronic service to citizens (Single platform of services and applications, ChatBot virtual assistants, etc.); Boosting efficiency in administrative management (with new collaboration tools, internal assistants, RPA and for then most complex processes, Agentic AI); Managing the urban physical environment (generating an accurate inventory that serves as a basis for the construction of Digital Twins to optimize operations and decision-making on physical items); and Better understanding the social and human environment of our citizens (detecting needs by neighborhood and situations of vulnerability) appear as the four fundamental pillars. In addition, the use of advanced models based on Metaverse technologies to optimize interaction with citizens represents a line of exploration and incorporation of new technologies as they become consolidated. All based on AI.

We cannot forget a critical aspect: it must be used responsibly and ethically, achieving the excellent improvements that it can bring, but always under human control, administration, respect for the identity of citizens and their sensitive data and avoiding possible abuses or unwanted uses.

AI-based Digital Transformation Plan. Why.

The City Council's digital transformation plan is necessary for several reasons:

• Operational efficiency: Digital processes are more efficient than traditional manual processes. They help reduce errors, improve speed, and cut costs. For example, using digital systems for paying taxes, applying for permits, or filing complaints makes these processes faster and more accurate.

• Transparency and accountability: Digital systems make public administration more transparent by allowing online tracking of city council expenditure, ongoing projects, and other data. This can help prevent corruption and improve public trust in government.

• Citizen participation: Digital channels can facilitate citizen participation in local government decision-making. This can be through online assistants (chatbots), online surveys, discussion forums, e-voting, etc.

• Adaptability and resilience: In times of crisis such as natural disasters or pandemics, a city council with a strong digital presence can continue to function and provide services to citizens despite the difficulties.

• Sustainability: By reducing the use of paper and other physical resources, digital processes are more sustainable and environmentally friendly.

• Data analysis: With the use of digital systems, large amounts of data can be collected and analyzed to assist in decision-making, city planning and the improvement of services.

- New Services development with autonomous, action-enabled Agentic AI to provide services that human capacity simply cannot deliver. (Agentic AI)

7.3 Beyond 2026. Twelve future trends from 2020-2026 Analysis

Attractiveness is evolving from Smart City performance to a human-centric intelligent city. The following twelve trends translate the Observatory's 2020-2026 findings into forward-looking urban challenges for the 2026+ horizon.

7.3.1 From Sustainability to Resilience in the Urban Agenda

The proposed statement needs with one important qualification: the urban agenda is not abandoning sustainability or decarbonization; rather, it is broadening from long-horizon environmental targets toward operational resilience alongside mitigation. Recent OECD, World Bank, UN-Habitat and IPCC work increasingly treats a successful city as one that can anticipate shocks, limit losses, maintain essential services, protect vulnerable residents and recover quickly. The World Bank explicitly measures urban resilience through both the size of initial losses and speed of recovery, while the UN definition centers on the capacity to “resist, absorb…adapt…and recover” while preserving essential functions (UNDRR, 2017; World Bank, 2023). The evidence is especially strong for the paragraph's claims about concrete harms and inequality. Climate hazards in cities include extreme heat, floods, storms, drought, wildfire and water scarcity, with cascading failures in energy, transport, communications, food, water and health systems (IPCC, 2022a; Ledesma Bohorquez, 2023). Poorer residents, people in informal or precarious housing and older people have systematically greater exposure or lower adaptive capacity; the IPCC assesses these distributional inequalities with high confidence (IPCC, 2022a). The “citizenship contract” and talent-attraction argument should be presented as a synthesis rather than an established formal concept. Nevertheless, evidence increasingly links perceptions of government emergency preparedness and service performance to institutional trust, while OECD attractiveness research incorporates climate resilience, environmental quality and public-service quality into the factors influencing where people and talent locate. A new global study finds that greater climate vulnerability reduces destinations' attractiveness to international students, while adaptation readiness increases mobility toward them (OECD, 2023a, 2026b; Gu et al., 2026).

Evidence supporting the claims

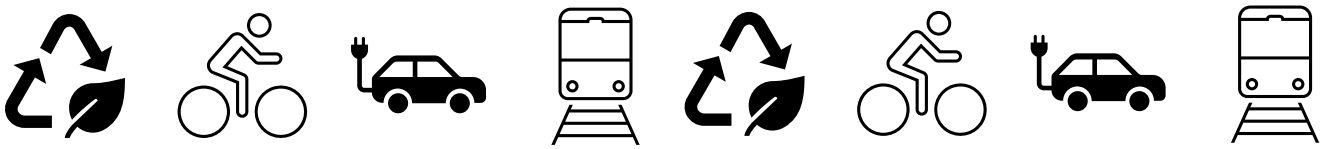
From sustainability toward operational resilience. Urban policy discourse has clearly elevated resilience over the past decade. Meerow, Newell and Stults (2016) documented the rapid rise of resilience as a major urban-policy objective, defining it as maintaining or rapidly returning to desired functions after disturbance while adapting and transforming where necessary. Elmqvist et al. (2019) caution that resilience and sustainability are distinct and should not be used interchangeably—supporting a formulation of “sustainability plus operational resilience,” rather than resilience replacing sustainability. More recently, the OECD's post-pandemic urban framework puts resilience—withstanding, recovering from and adjusting to shocks—at the center of “future-proof” urban policy, alongside sustainability and justice (OECD, 2024a). This change is increasingly operational. UN-Habitat's World Cities Report 2024 calls for adaptation plans, resilient infrastructure in underserved communities and social protection against climate shocks, while the World Bank emphasizes translating hazard information into zoning, infrastructure and investment decisions rather than relying on post-disaster response (UN-Habitat, 2024; World Bank, 2023). Tangible and cascading harms. The IPCC identifies urban exposure to heatwaves, flooding, sea-level rise, drought/water scarcity, storms and wildfires, noting that these hazards disrupt energy, communications, transport, food and water systems (IPCC, 2022b). OECD work explicitly expands the resilience lens to interactions between climate shocks and health, financial, social and other crises, showing why resilience is concerned with day-to-day system performance rather than climate variables alone (Ledesma Bohorquez, 2023). This matches the UNDRR emphasis on keeping critical infrastructure and essential services operational during and after disasters (UNDRR, 2022).

Cities are judged by protection, continuity and recovery. The World Bank defines a resilient city's performance through how much output/population it loses from a shock and how rapidly it recovers (World Bank, 2023). More directly from citizens, the OECD's 2025 Trust Survey finds that people who believe institutions are prepared to protect lives during large-scale emergencies are significantly more likely to trust local government and other public institutions; satisfaction with everyday services, accessible information and fair treatment are likewise associated with local-government trust (OECD, 2026b). Thus, operational resilience can reasonably be understood as part of an implicit citizen–government performance contract.

Resilience, livability and talent. OECD research finds that talent attraction depends not just on jobs but on housing, natural environment, social cohesion and the quality of transport, health and education services; it also warns that heat and climate impacts can make urban locations less attractive (OECD, 2023a). OECD's newer Regional Attractiveness Database consequently includes climate resilience among its place-attractiveness indicators (OECD, 2024b). Most compellingly, Gu et al. (2026), using 1.15 million international student flows, find that destination climate vulnerability dampens attractiveness while stronger adaptation readiness increases student mobility—direct evidence that resilience can affect global talent flows. Spatial inequality is central, not incidental. The IPCC concludes with high confidence that climate impacts disproportionately affect economically and socially marginalized urban communities. Informal-settlement residents face greater exposure because of hazardous locations, low-quality housing, deficient drainage and services, and limited capacity to recover; elderly populations show particularly elevated heat mortality risks (IPCC, 2022b). WHO likewise identifies low-quality housing and lack of cooling as reasons poorer households are disproportionately exposed to overheating and notes that older people face especially high heat-related mortality risk (WHO, 2026). UN-Habitat therefore recommends resilient-infrastructure investment and social protection specifically in underserved communities (UN-Habitat, 2024).

City evidence in practice

City	Hazard	Operational resilience actions	Observable outcome / significance
Ahmedabad	Extreme heat	Heat-health thresholds, color-coded early warnings, community outreach, health-system preparedness, focus on at-risk populations	Post-plan analysis estimated **≈1,190 avoided deaths annually** in 2014–15 relative to the pre-plan relationship between heat and mortality (Hess et al., 2018).
Cape Town	2015–18 drought / "Day Zero"	Intensive public communication, water dashboard/map, restrictions, pressure management; social tariff and free standpipe water protected poorer/informal-settlement households	Consumption fell to roughly **half pre-drought levels** at the crisis peak and Day Zero was avoided (OECD, 2021).
New York City	Hurricane Sandy	Emergency alerts and evacuation; Rapid Repairs restored heat, power and hot water; special-medical-needs shelters; subsequent resilient rebuilding	In **under 100 days**, essential utilities were restored in >11,700 buildings/20,000 units serving ≈54,000 residents (City of New York, 2013).
Paris	Extreme heat	Heatwave coordination and public information; REFLEX register/outreach to isolated older and disabled residents; cooling spaces; priority to poorly housed, homeless and working-class neighborhoods	Institutionalizes resilience as a **municipal protective service**, explicitly targeting groups with the least capacity to cope independently (City of Paris, 2024).



These cases illustrate the practical evolution described in the statement: resilience becomes visible through warnings received, homes remaining habitable, water continuing to flow, vulnerable residents being contacted, and services being restored, rather than through targets alone.

Analytical conclusion

The evidence therefore strongly supports “From Sustainability to Resilience” if it is understood as a shift in emphasis from commitments to demonstrated capability, not as abandonment of mitigation. Decarbonization remains indispensable, but climate governance is increasingly expected to demonstrate what happens when hazards actually arrive: whether mortality and disruption are prevented, critical services survive, recovery is rapid, information is credible and vulnerable neighborhoods receive disproportionate protection where vulnerability is disproportionate (OECD, 2024b; UN-Habitat, 2024; IPCC, 2022c). The strongest defensible version of the “talent/citizenship contract” claim is: resilience increasingly contributes to urban legitimacy and attractiveness because residents and mobile talent value reliable services, safety, environmental quality and credible adaptation capacity. OECD trust evidence directly connects emergency preparedness and public-service performance with institutional trust, while OECD attractiveness indicators and Gu et al. (2026) connect environmental/climate resilience with the attraction and retention of mobile human capital.

7.3.2 From Decarbonization to Urban Energy Sovereignty? Evidence on City-Scale Energy Self-Sufficiency

The evidence does not show cities abandoning decarbonization or pursuing literal energy autarky. It shows urban energy policy broadening from a mainly climate-mitigation agenda into a dual mandate: decarbonization plus security, affordability, resilience and greater local control. Cape Town is explicitly seeking a “decentralized energy future” that reduces reliance on Eskom; Kyiv is building distributed generation and critical-infrastructure backup under wartime conditions; Tokyo links decarbonization with energy security and disaster resilience; and Amsterdam now regulates data-center growth partly according to local energy-system constraints. The more defensible concept is therefore urban energy sovereignty or strategic energy localization, rather than energy nationalism. Academic literature normally defines energy nationalism at the nation-state level—as subordinating energy policy to national security, sovereignty and national interests—and warns that some forms can actually obstruct decarbonization and decentralized civic energy (Żuk, Conversi, & Żuk, 2024). At city scale, the emerging objective is better described as grid-connected self-reliance: cities seek enough local generation, storage, flexibility, thermal networks and islandable critical infrastructure to withstand disruptions without disconnecting from regional/national grids. This shift is being accelerated by the Ukraine war and energy-price shock, extreme-weather outages, electrification of transport and heating/cooling, and rapidly growing digital loads. The IEA expects global electricity demand to rise about 3.6% annually during 2026–2030, while data-center electricity consumption is projected to rise from roughly 485 TWh in 2025 to 950 TWh (almost double) in 2030 (IEA, 2026). The implication for urban attractiveness is significant: reliable, affordable and resilient clean energy is becoming infrastructure for economic competitiveness, digital services and quality of life, not merely an emissions variable.

Concepts and analytical framing

Decarbonization is the structural reduction of greenhouse-gas/carbon intensity through efficiency, electrification and substitution of fossil fuels by low- or zero-carbon energy, ultimately consistent with net-zero systems (IPCC, 2022b). Energy nationalism, conventionally, means organizing control over energy resources, infrastructure and policy around national sovereignty, security and national interests (Żuk et al., 2024). City-scale energy nationalism is not an established scholarly category; here it should mean urban energy sovereignty: increasing municipal/community capacity to control or influence energy production, procurement, storage, distribution, flexibility and continuity of essential services. This distinction matters because traditional energy nationalism can favor domestic fossil fuels, whereas urban sovereignty can reinforce clean-energy decentralization. Urban energy self-sufficiency is the extent to which local demand can be supplied by locally produced energy. “Energy autarky” represents the stronger case of locally matching production and consumption with little or no dependence on external supply (Ibrahim et al., 2025). For large cities, the strategically relevant target is usually partial self-sufficiency plus critical-load autonomy, not 100% annual autarky. Energy resilience is the capacity of an energy system to anticipate and withstand disruption, maintain or rapidly restore essential services, adapt and recover. Distributed generation combined with storage can maintain local service when central supply fails, particularly for critical infrastructure. IPCC assessments similarly find that distributed/decentralized renewable systems can improve resilience to energy shocks (IPCC, 2022d).

Empirical evidence from cities

City	Measures implemented	Outcome / evidence
Cape Town	Municipal solar + batteries; pumped storage; rooftop feed-in; wheeling; competitive PPAs	Steenbras storage mitigated **24% of load-shedding** during the Eskom crisis; households / businesses sold **150 GWh** of excess solar to the city since June 2024; city-owned Atlantis project is **7 MW PV + 10 MWh battery**; first PPAs add 70 MW. (City of Cape Town, 2026a)
Kyiv	Distributed cogeneration; diesel reserve; solar at public facilities; protected water/heat backup	About **60 MW of new distributed cogeneration completed**, >100 MW under development; >15 MW diesel backup installed for water infrastructure, with ~40 MW reserve planned. (Kyiv City Council, 2026)
Tokyo	Rooftop-PV requirement for new housing; batteries; public facilities; resilience-oriented distributed renewables	Rooftop-solar rules took effect **April 2025**; latest policy raises 2035 targets to around **4 GW solar** and **4.5 GWh residential batteries**. (Tokyo Metropolitan Government, 2025)
Barcelona	Municipal energy company; public rooftop PV; collective self-consumption; social-energy programs	Active municipal PV exceeds **11 MWp**, roughly tripling since 2023; shared-solar schemes include capacity specifically reserved/subsidized for vulnerable households. (Barcelona City Council, 2025)
Copenhagen	City-scale district heating; peak/reserve planning; decentralized supply; buildings as energy-system assets	District heating supplies **98% of Copenhagen's heating demand**; the 2024–25 energy strategy explicitly includes peak/reserve heat, decentralized energy supply and renewable generation. (HOFOR; City of Copenhagen, 2025)
New York City	Municipal demand response; efficiency and public-building retrofits	**668 municipal facilities** committed >**122 MW** of peak-load reduction in summer 2025; demand response generated >**$153 million** since 2013, alongside major hospital/public-building retrofits. (NYC DCAS, 2025)
New Orleans	Solar+battery neighborhood “Community Lighthouses” / resilience hubs	After Hurricane Francine, **4 of 9 operating hubs ran off-grid** on solar-storage microgrids; the city committed **$2 million** toward eight hubs. (City of New Orleans, 2024)
Amsterdam	Data-center siting and energy governance; heat-reuse conditions; local grid-capacity management	Since the 2023 revision, Amsterdam applies a **“no, unless”** approach: new/expanded data centers require demonstrable local benefit and stricter sustainability conditions, including preparation for waste-heat recovery. (Municipality of Amsterdam, 2026)

These are heterogeneous cases, but the common institutional change is important: municipalities are no longer acting only as emissions target-setters. They increasingly act as energy procurers, producers, network coordinators, flexibility aggregators, infrastructure owners and regulators of major loads. That is the strongest empirical basis for describing a move toward urban energy sovereignty.

Why the shift is accelerating

The trajectory predates 2022: the European Commission's 2014 Energy Security Strategy, developed amid the Ukraine crisis, explicitly connected energy security to reduced external dependency while arguing that security and a low-carbon transition were inseparable; the 2015 Paris Agreement then entrenched the global decarbonization framework. The Russian invasion of Ukraine in February 2022 was the major accelerator: REPowerEU explicitly combined reduced Russian fossil-fuel dependence with affordability, diversification and faster renewables deployment (European Commission, 2022a). Extreme weather converts clean distributed energy into continuity infrastructure. New Orleans' experience demonstrates the distinction: solar alone reduces carbon, whereas solar plus storage plus islanding capability can deliver cooling, charging, food distribution and medical-device electricity when the grid fails. Demand is becoming both larger and more spatially concentrated. EVs, electrified heating, air conditioning and data centers are increasing electricity needs; IEA's 2026 outlook expects data-center electricity demand to roughly double by 2030 (IEA, 2026). Amsterdam's data-center controls therefore represent an important new form of urban energy governance: land-use and economic-development decisions are increasingly conditioned by local grid capacity and heat/energy integration. Regulation and finance are enabling localization. REPowerEU set a political objective of at least one energy community in every EU municipality above 10,000 inhabitants; more than 8,000 energy communities existed across the EU by late 2025. Cape Town has allocated R1.245 billion over the medium term to renewable procurement and Steenbras energy-security upgrades, while New York demonstrates that flexibility can generate revenue as well as improve reliability (City of Cape Town, 2026b). But sovereignty must include affordability. In 2025, 8.8% of the EU population could not afford to keep their home adequately warm, and summer cooling poverty is emerging as an additional concern (European Commission, 2026). Energy security that protects data centers but leaves households unable to heat or cool their homes would be a poor measure of urban resilience.

Trade-offs and limits

The principal tension is self-reliance versus system integration. Regional grids, interconnectors and electricity markets provide resource diversity and sharing across locations; IPCC net-zero pathways require more, not less, energy-system integration (IPCC, 2023). The appropriate model is therefore “connected autonomy”: normal operation within larger grids, combined with local generation/storage/flexibility and the capability to island selected critical loads during emergencies. A second tension is security versus carbon. Kyiv's distributed cogeneration and diesel generators are rational wartime resilience investments, but fossil backup illustrates how energy security can conflict with decarbonization if emergency assets become permanent baseload. The hierarchy should therefore favor efficiency, renewables, batteries, thermal storage, demand response and clean district systems, with fossil emergency generation treated as transitional or last-resort capacity. Third, localization can deepen inequality if rooftop PV, batteries and subsidies primarily benefit property owners. Barcelona's reserved access for vulnerable households and New Orleans' community resilience hubs illustrate more distributive models. Likewise, strict autarky is neither necessary nor universally economical: research on local energy autarky emphasizes that the technically and socially meaningful degree of self-sufficiency varies greatly by geography, density and institutional context (Ibrahim et al., 2025). Hence the claim should not be formulated as “decarbonization → nationalism.” A better formulation is:

Cities are evolving from decarbonization-only strategies toward decarbonization plus urban energy sovereignty: increasing local clean-energy production, storage, flexibility and critical-service autonomy while remaining integrated with wider energy systems.

Indicators and policy implications

A city-attractiveness framework should measure capability under stress, not simply installed renewable capacity.

Dimension	Recommended indicator
Local clean supply	Local renewable electricity/heat ÷ total city demand (%); **local renewable generation kWh per capita/year**
Storage & flexibility	Battery + thermal storage **kWh per capita** and hours of peak/critical load; demand-response MW ÷ city peak demand
Critical-service autonomy	% hospitals, water/wastewater, emergency communications and shelters with islandable supply; **backup MW and hours of critical-load coverage**
Microgrid resilience	% critical facilities served by islandable microgrids; resilience hubs per 100,000 residents / population within service radius
Efficient public estate	% municipal floor area deeply retrofitted annually; reduction in municipal-building energy-use intensity
Reliability & affordability	SAIDI/SAIFI, outage restoration time and energy-not-served; bottom-quintile energy burden; arrears; % unable to maintain safe winter and summer temperatures
Data-centre governance	Data-center MW connected/requested relative to grid headroom; PUE/WUE; 24/7 clean-energy matching; flexible-load MW; waste-heat utilization; required contribution to grid/storage capacity

For urban planners, energy capacity should become a core spatial-planning variable alongside transport and water: identify critical-load zones, reserve space for substations/storage/district energy, and condition large new loads on grid contribution and flexibility. Amsterdam illustrates this emerging approach.

For utilities, the priority is an interoperable distributed system—two-way power flows, dynamic tariffs, demand response, storage and islandable microgrids—rather than defending the traditional one-way utility model; Cape Town and New York provide concrete precedents.

For investors, the most resilient assets will increasingly be projects that stack multiple revenues and benefits—energy savings, flexibility, avoided outages, heat recovery and ancillary services—not merely carbon reduction. The strategic target should therefore be not 100% urban autarky, but sufficient clean local capacity and flexibility to keep essential urban functions operating through credible shocks. This turns energy from an environmental externality into a core component of city competitiveness, public safety and economic continuity while preserving the advantages of national and regional grid integration.

Data gap: comparable city-level statistics remain weak. Definitions of “local” generation differ; cities rarely publish standardized islanding hours, critical-load coverage or storage duration; data-center load is often commercially sensitive; and SAIDI/SAIFI can obscure extreme-event performance. Consequently, cross-city rankings of “energy sovereignty” should initially be treated as indicative rather than definitive.

7.3.3 Safety: From "comfortably numb" to active civic preparedness

The strongest direct evidence comes from the WorldWide Observatory for Attractive Cities: between its 2018 and 2024 surveys, physical/virtual safety rose from fourth to first among ten city-service priorities, while its underlying importance score increased from 4.28 to 4.57 out of 5 (Ondiviela, 2025). Peer-reviewed evidence provides useful triangulation: a 2026 study of 13,380 respondents across 41 Romanian cities found perceptions of safety, trust and governance among the strongest predictors of city satisfaction (Petrovici et al., 2026). At the same time, the meaning of safety is broadening. Crime and terrorism remain relevant, but cities increasingly operate in an interconnected risk environment encompassing cyberattack, disinformation, geopolitical instability, infrastructure sabotage, pandemics, extreme weather and societal polarization. The EU now explicitly organizes preparedness around all-hazards, whole-of-government and whole-of-society principles; Finland's comprehensive-security model and Singapore's Total Defence similarly make citizens, communities and businesses participants in resilience rather than merely recipients of protection (European Commission & High Representative, 2025; Security Committee, 2025; Ministry of Defence Singapore, 2025). "Comfortably numb" is therefore best understood as a metaphor for over-reliance on institutional protection. The emerging model is not citizen self-reliance replacing government, but layered preparedness: capable institutions + resilient infrastructure + trusted communication + prepared communities.

Evidence for the shift

The Observatory provides unusually clear longitudinal evidence of changing priorities. Comparing the 2018 vs 2024 Surveys, we find that the safety importance score rises from 4.28/5 in 2018 to 4.57/5 in 2024. This is meaningful but should not be interpreted as a representative trend for the global urban population. Respondents were recruited through smart-city events rather than probability sampling. Nevertheless, external evidence supports the underlying relationship. In the Romanian Urban Barometer study, subjective safety and trust were stronger correlates of city satisfaction than many objective amenity measures (Petrovici et al., 2026). Thus, the safer-city proposition is stronger when stated as: safety is increasingly salient to urban attractiveness, although the Observatory alone cannot establish a global population trend.

From policing to all-hazards civic preparedness

The risk portfolio facing cities has widened beyond conventional public order. The EU's Preparedness Union Strategy identifies geopolitical conflict, state-sponsored hybrid and cyberattacks, sabotage of critical assets, foreign information manipulation, climate hazards and future pandemics, and explicitly calls for preserving society's vital functions under disruption (European Commission & High Representative, 2025). The 2026 Global Risks Report likewise places misinformation/disinformation and cyber insecurity among major near-term risks, alongside societal polarization and extreme weather, while warning that critical infrastructure is exposed simultaneously to climate, physical and cyber pressures (World Economic Forum [WEF], 2026). Strictly speaking, not every item in this portfolio is a "hybrid threat": climate disasters and pandemics are better classified within an all-hazards/compound-risk environment, whereas hybrid threats usually imply coordinated hostile activity across physical, cyber, informational or other domains. That distinction would improve the Observatory's conceptual framework. The policy response is already shifting accordingly. The EU calls for integrated all-hazards preparedness, coordination across local, regional, national and EU government, whole-of-society participation, stronger early warning and minimum 72-hour household self-sufficiency guidance (European Commission & High Representative, 2025).

Finland's 2025 Security Strategy for Society treats authorities, businesses, organizations and citizens as joint contributors to maintaining society's vital functions and explicitly strengthens individuals' role in preparedness and response (Security Committee, 2025). Singapore's Total Defence framework similarly integrates military, civil, economic, social, digital and psychological defence, including citizen action against cyberattack and disinformation (Ministry of Defence Singapore, 2025). OECD and UNDRR frameworks reinforce the same evolution: OECD describes a shift from protecting individual infrastructure assets toward system resilience and continuity of essential services, while UNDRR's urban framework combines community capacity, infrastructure resilience, contingency planning, early warning and emergency response (OECD, 2019; UNDRR, 2017).

Threat domain	**Preparedness response**	**Candidate Observatory indicators**
Crime, terrorism, unrest	Prevention, inter-agency coordination, community relationships	Perceived day/night safety; victimization; response capacity; police/local-government trust
Cyberattack, misinformation	Cyber incident plans, backups, recovery exercises, trusted crisis communication, digital literacy	Critical systems covered by tested plans; recovery time; exercise frequency; trust in official information
Climate, disaster, health shocks	Multi-hazard assessment, early warning, health surge capacity, household/neighbourhood preparedness	Warning coverage/reach; preparedness-plan quality; drill participation; household readiness
Sabotage, geopolitical disruption, infrastructure failure	Redundancy, public-private coordination, continuity planning, critical-infrastructure resilience	Essential-service downtime; backup capacity; continuity tests; recovery time

These measures follow the logic of EU preparedness, OECD critical-infrastructure resilience and UNDRR's Disaster Resilience Scorecard, which already offers 47 preliminary and 117 detailed criteria for city resilience assessment (European Commission & High Representative, 2025; OECD, 2019; UNDRR, 2017).

Trust, governance and Observatory implications

The critical governance issue is preparedness without securitization. Attractive cities should make residents capable rather than frightened; and protected rather than excessively controlled. OECD evidence shows that trust depends strongly on reliability, fairness, meaningful citizen voice and credible evidence-based communication; across surveyed OECD countries, only 39% reported high or moderately high trust in national government, while 53% believed government was prepared to protect lives in a large-scale emergency (OECD, 2024c). Research also gives the “comfortably numb” metaphor an important qualification. A 2026 systematic review of 100 studies identified 209 trust–resilience relationships: trust was associated with greater resilience in 58%, but with lower resilience in 33%. One recurring mechanism was that strong confidence in authorities or protective infrastructure could reduce perceived personal vulnerability and suppress household preparation (Nicholas et al., 2026). The lesson is not to reduce trust; it is to combine institutional trust with self-efficacy and realistic risk awareness. Excessive distrust impairs cooperation and warning compliance, while excessive dependence can encourage passivity (Nicholas et al., 2026).

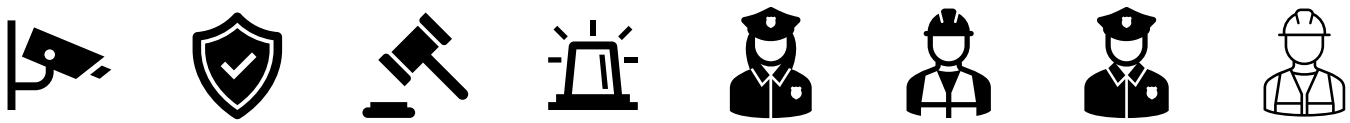
A future Urban Safety & Preparedness dimension should therefore contain three layers:

- First, outcomes: perceived safety, victimization and continuity/downtime of essential services.
- Second, institutional capability: multi-hazard plans and exercises, cyber recovery, early-warning coverage, infrastructure redundancy and crisis-communication performance.
- Third, social capacity: institutional trust, neighborhood mutual-help capacity, household preparedness and participation in exercises. UNDRR specifically identifies social connectedness, community participation, resilient infrastructure and regularly updated preparedness plans as city-resilience essentials (UNDRR, 2017).

The resulting evidence supports a qualified conclusion: urban safety is moving from passive expectations of protection toward active civic preparedness. The strongest cities will not be those that transfer responsibility to citizens, but those capable of keeping everyday life functioning while citizens understand risks, trust institutions and know how to act.

7.3.4 From law enforcement to community-centered, foresighted, intelligent Policing

Urban Policing is moving beyond a predominantly reactive law-enforcement model toward a model that is more preventive, community-centered, intelligence-led, digitally enabled, and legitimacy-focused. This transition is not uniform across all cities or police organizations, but it is visible in international urban-safety frameworks, national policing strategies, technological investments, and the growing evidence base on effective Policing. From reacting to incidents to anticipating and preventing harm. Traditional policing has often been organized around calls for service, investigation after an offence, arrests, and response times. Contemporary approaches increasingly seek to identify recurring problems and risks before they result in harm. Problem-oriented policing illustrates this change: police scan for persistent problems, analyze their causes, develop tailored interventions, and assess outcomes rather than simply responding repeatedly to individual incidents. A systematic review of 34 studies found that problem-oriented policing was associated with an approximately 34% reduction in crime and disorder in treatment areas relative to comparison areas (Hinkle et al., 2020).This prevention orientation is increasingly institutionalized. England and Wales' Policing Vision 2030 places prevention, community safety, trust, innovation and transformation at the centre of future policing, while its national digital strategy explicitly calls for using digital technologies and data to identify risks of harm, protect vulnerable people, and create richer intelligence pictures (National Police Chiefs' Council [NPCC] & Association of Police and Crime Commissioners [APCC], 2020; Strategic Policing Partnership Board, 2023). These developments provide concrete evidence of a shift from incident response toward foresight, risk identification and prevention. From police-delivered security to community-centered safety. The transition is also institutional: urban safety is increasingly treated as something co-produced by police, local government, communities, social services and other partners, rather than delivered by police alone. UN-Habitat's Safer Cities programme has applied participatory urban-safety approaches in 77 cities and towns across 24 countries, promoting local safety coalitions, community engagement, problem-oriented and community policing, neighbourhood-level safety assessments, and partnerships between government, criminal justice institutions and civil society (UN-Habitat, 2020).



A systematic review of community-oriented policing found positive effects on citizen satisfaction, perceptions of disorder and police legitimacy, although effects on crime and fear of crime were more limited (Gill et al., 2014). More recent evidence reinforces the importance of legitimacy: a meta-analysis covering 123 studies and more than 200,000 participants found a significant relationship between procedural justice and police legitimacy (Chan et al., 2025). Thus, neighborhood knowledge, respectful treatment, community voice and perceived fairness are not peripheral “soft” outcomes; they influence whether citizens trust, cooperate with and recognize police authority.

From information collection to intelligent and digital policing. Policing is simultaneously becoming more data-intensive. Crime mapping, digital evidence, intelligence analysis, cyber intelligence, risk assessment and AI can enable police to detect patterns that would be difficult to identify through conventional incident-by-incident investigation. The UK National Policing Digital Strategy, for example, envisages integrated information and data supporting richer intelligence, digitally enabled public interaction and earlier identification of harm (NPCC & APCC, 2020).

The crime environment itself makes this transformation necessary. Europol's cybercrime assessments document the continuing importance and evolution of ransomware, online fraud, child sexual exploitation and other digitally enabled threats, demonstrating why contemporary urban safety capability must extend beyond physical streets into the digital environment (Europol, 2024). Cybercrime capacity, digital forensics and electronic-evidence capability should therefore increasingly be understood as core dimensions of city safety rather than specialist additions.

Intelligent policing must also be legitimate policing. Technology, however, does not automatically produce better policing. Predictive systems can reproduce historical enforcement patterns because police data reflect not only underlying crime but also previous policing decisions and reporting practices. Research has demonstrated how predictive models trained on biased enforcement data can reinforce unequal targeting and create feedback loops (Lum & Isaac, 2016).Consequently, the emerging model is better described as responsible intelligent policing, not simply technology-intensive policing. INTERPOL and UNICRI's Toolkit for Responsible AI Innovation in Law Enforcement reflects this development: it recognizes that law-enforcement agencies are already using AI while emphasizing human rights, ethics, risk assessment, transparency and responsible governance (INTERPOL & UNICRI, 2024). The implication is that accuracy, explainability, bias monitoring, human oversight and accountability should be evaluated alongside operational efficiency.

Why this matters for city attractiveness. Urban safety is also an attractiveness and competitiveness issue. The OECD's regional-attractiveness framework explicitly treats resident well-being and social cohesion as dimensions relevant to attracting investors, talent and visitors. Its indicators include both objective safety measures, such as homicide rates, and subjective measures such as whether residents feel safe walking alone at night, alongside measures of quality of government (OECD, 2023a). This supports a broader interpretation of urban security: low recorded crime is important, but so are perceived safety, institutional quality, public confidence and the ability to function safely in increasingly digital environments. The future-oriented city should therefore avoid choosing between security and legitimacy. Excessively intrusive policing can damage trust and cooperation, while insufficient capacity to prevent physical and digital harm undermines safety and confidence. The stronger model combines advanced analytical capability with neighborhood knowledge, procedural justice, victim protection and community partnership. Accordingly, assessment of future urban policing should extend beyond conventional indicators such as crime rates, arrests and response times. A balanced city-safety framework should monitor (1) crime and harm prevention, (2) police legitimacy and community trust, (3) perceived public-space safety, (4) cybercrime and digital-evidence capability, (5) identification of emerging risks and vulnerabilities, (6) victim support and protection, (7) ethical and accountable AI/data governance, and (8) community and multi-agency prevention partnerships. Together, these dimensions capture the transition from policing as reactive enforcement toward policing as an intelligent, preventive and democratically legitimate system of urban safety.

7.3.5 Talent movers: From money-driven to quality-of-life cities

Urban talent is not becoming indifferent to money; rather, location choice is shifting from nominal salary toward "total life value": real disposable purchasing power after housing and transport, access to desirable jobs, time saved through shorter/hybrid commutes, family services, safety, environmental quality, culture, inclusion, and subjective well-being. A more precise formulation is therefore: talent mobility is shifting from salary-only-led to salary-plus-quality-of-life optimization. The strongest evidence comes from three directions.

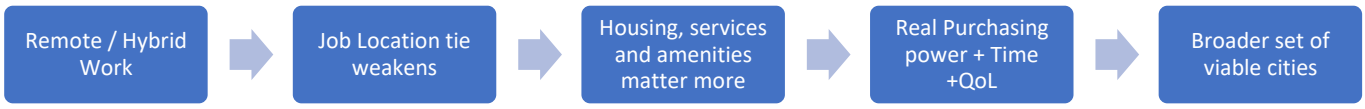
First, experimentally elicited preferences show workers willing to sacrifice 5–6% of wages for better culture, family friendliness—including schools and childcare—and infrastructure/housing, while still valuing local economic dynamism at about 8% of wages (Arntz, vom Baur, & Brüll, 2023).

Second, remote/hybrid work has weakened the geographic tie between high-productivity jobs and expensive employment centers: remote workers migrate 40–50% more than comparable commuters and disproportionately move toward lower-cost cities (Bick et al., 2024).

Third, the affordability penalty of the largest cities has intensified: OECD housing prices in large urban areas rose nearly 68% in a decade and were 86% higher than in very small urban areas in 2023 (OECD, 2024b). The implication is not the "death of superstar cities." Agglomeration, jobs, networks and salaries remain powerful, and recent population recoveries in New York and San Francisco show that pandemic-era outflows cannot simply be extrapolated. But the competitive variable has changed: cities increasingly compete on how effectively they convert earnings into affordable, healthy, enjoyable and time-efficient lives.

Definition and scope

Here, "talent movers" means mobile working-age skilled people—especially urban young professionals and mid-career knowledge workers, approximately ages 20–55—who have meaningful discretion over where they live and work. This includes tertiary-educated workers, workers in professional/technical occupations and, increasingly, remote-capable employees. The definition concerns residential/location choice rather than only job switching; international talent matters, but the most credible causal evidence currently concerns domestic relocation and remote-capable workers. OECD evidence confirms that high-skilled workers are especially exposed to this new geography because telework is concentrated in knowledge work: European cities have a 13%-point higher share of telework than rural areas (OECD, 2020a). The mechanism is straightforward:



Remote work does not eliminate labor-market geography; it widens the feasible choice set, allowing workers to trade proximity to the office for housing, space, schools, nature and other amenities.

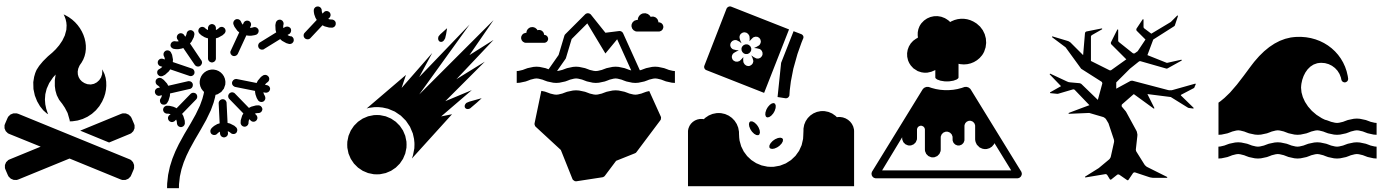
Evidence across the quality-of-life proposition

The evidence is unusually direct for amenities versus wages. In a randomized stated-choice experiment covering 2,125 working-age Germans and nearly 15,000 hypothetical city choices, respondents were willing to forego up to 6% of wages for high-quality urban amenities. Family friendliness, cultural amenities and infrastructure were especially valuable; "family friendliness" explicitly incorporated school quality, childcare availability and playgrounds, while ecology incorporated air quality, green space and access to recreation (Arntz et al., 2023). Economic dynamism remained slightly more valuable—about an 8% wage equivalent—showing that the evidence supports a rebalancing, not the disappearance of economic motives. Remote work makes those preferences actionable. Brueckner, Kahn and Lin (2023) likewise show that WFH (Work-From-Home) puts downward pressure on housing demand in high-productivity locations by permitting workers to retain desirable employment while choosing cheaper residential markets.

Time itself has become an amenity. In a randomized trial of 1,612 graduate employees, two hybrid WFH days per week reduced attrition from 7.2% to 4.8%—one-third—without harming performance; among employees with two-way commutes exceeding two hours, attrition fell from 7.33% to 1.89% (Bloom, Han, & Liang, 2024). This makes commuting time economically comparable to salary, housing or benefits when cities compete for workers. European evidence shows why medium-sized and non-capital cities can exploit that shift. In the European Commission's survey of 83 cities and more than 70,000 residents, non-capitals outperform capitals on several elements of the whole-life proposition: being good for families (84% vs. 77%), healthcare satisfaction (71% vs. 62%), public-space satisfaction (78% vs. 72%), cultural facilities (83% vs. 80%) and perceived housing affordability (39% vs. 28%) (European Commission, 2023). The pattern is not simply "small is better": satisfaction with culture peaks at 84% in cities of 250,000–500,000, compared with 74% in the surveyed cities above five million.

Quantitative indicator dashboard

Dimension	Recent empirical evidence	What it says about talent mobility
Net purchasing power	Tulsa Remote movers gained **$26,500/year more in real income** than accepted applicants who had not moved, once local rental costs were incorporated; nominal-income differences between those groups were negligible (Teodorovicz, Choudhury, & Starr, 2025).	The relevant "salary" is **real income after local costs**, not nominal pay.
Housing burden	Large OECD urban areas: house prices **+68%/decade**; 2023 prices **86% above very small urban areas**. In the EU, almost **10% of city residents** faced housing costs >40% of disposable income in 2024 versus **6% rural** (OECD, 2024b Eurostat, 2025).	High pay can be neutralized by housing.
Commute / time	Hybrid RCT: employee quitting **–33%**; particularly large effect for long commuters (Bloom et al., 2024).	Saving time has measurable labor-retention value.
Remote readiness	Cities have **+13 pp** more teleworkable jobs than rural areas; within countries regional potential differs by ~**15 pp** (OECD, 2020).	Broadband + teleworkable employment expand location choice.
Schools / family	Experimental willingness to pay **5–6% of wages** for family friendliness/amenities; only **77%** rate capitals good for young families vs **84%** in non-capitals. (European Commission, 2023)	Family formation changes the urban utility function.
Culture / nature / environment	Culture satisfaction: **84%** in 250k–500k cities vs **74%** in >5m cities; air-quality satisfaction **72%** in <250k cities vs 58% in 1–5m cities. (European Commission, 2023)	Large-city amenity monopolies are weaker than assumed.
Well-being / inclusion	Across European cities, satisfaction with the city correlates about **0.8** with overall life satisfaction; non-capitals are more often rated good for immigrants (**75% vs. 70%**). (European Commission, 2023)	Place quality is closely associated with experienced well-being and belonging.
Migration	U.S. IRS flows reversed from net **+41,000** filers moving from <1m to >1m metros in 2013–14 to nearly **114,000 moving from >1m to smaller metros in 2021–22** (Brookings, 2024).	Revealed behavior is consistent with greater affordability/hybrid-work weighting.



City cases: expensive superstar cities versus attractive alternatives.

Case	Observed mobility / indicator	Interpretation
San Francisco	Metro net domestic migration was **–128,870 in 2020–21**. The city lost **15.5% of its 20–34 population** over the period examined by Census; IRS-based analysis finds migration reduced San Francisco's AGI base by **>$8bn**, with departing households earning about **$105k more** on average than incoming ones. (Doren, 2022)	A particularly clear high-pay/high-cost case where the outflow included young and high-income residents—not merely low-income displacement.
New York	Metro domestic migration loss was **385,455 in 2020–21**; cumulatively, domestic migration was nearly **–1.3m from 2020–25**. (Erickson & Spell, 2026)	High productivity does not immunize a city against cost/space/time pressures; however, international migration subsequently restored total population growth.
Tulsa	A targeted program for remote skilled workers generated a **$26.5k real-income improvement** versus accepted non-movers and increased connection to the local community without reported productivity loss. (Choudhury, Starr & Teodorovicz, 2022)	A medium-sized city can compete without matching coastal nominal salaries by combining affordability, remote connectivity and social/community infrastructure.

The broader revealed-preference pattern is stronger than any single example: pandemic-era IRS migration shifted materially from very large to smaller metros, while the 2026 Census reports that midsized U.S. cities have held up better than the largest cities, helped by migration and housing growth. (U.S. Census Bureau, 2026)

Causality, counter-evidence and limitations

The causal claim should be calibrated. There is strong evidence that QoL factors affect location and retention, but weaker evidence that they have replaced salary. The amenity-choice experiment randomly varies wages and city characteristics; the Bloom et al. (2024) randomized trial causally establishes the value of flexibility/time; Bick et al. (2024) exploit exogenous WFH expansions; and the 2026 Census study instruments remote work using quasi-random office-lease expirations and estimates it caused about 10% of migration since 2020. Together, these move the conclusion beyond simple correlation. There are nevertheless four important qualifications. Salary and job opportunity remain fundamental: in Arntz et al. (2023), economic dynamism commands an 8% wage-equivalent valuation, higher than any single amenity. Superstar-city advantages persist: much pandemic-era relocation was from urban cores to suburbs rather than wholesale abandonment of metropolitan economies, and some major metros regained population in 2023–24. High prices partly reflect valuable amenities and productivity: Diamond and Moretti (2021) find that, for otherwise similar U.S. college graduates, real consumption does not systematically decline with local prices, cautioning against assuming that expensive cities necessarily make skilled workers poorer. Finally, migration data frequently measure all households rather than education/occupation-specific talent; amenities and skilled populations can also cause each other, so cross-sectional QoL–migration correlations should not be read as causal.

Implications for city competition and future indicators

The strongest wording for this proposition should be: the next phase of talent competition is between cities that translate economic opportunity into usable purchasing power, time and well-being, and cities that allow housing, congestion and weak services to consume those gains. Large/high-wage cities remain competitive when productivity premiums exceed their housing and time costs; medium-sized cities become credible competitors when they combine adequate job access or remote connectivity with housing, safety, schools, healthcare, culture, nature and inclusion.

Talent should therefore consider moving beyond average salary and GDP per capita to a compact “total life value” dashboard: real after-tax purchasing power adjusted for local prices; housing-cost-to-disposable-income and housing availability; median door-to-door commute and annual hours lost commuting; share of teleworkable jobs plus broadband quality; school outcomes/childcare accessibility; healthcare access and waits; cultural participation rather than facility counts alone; walkable green-space access, PM2.5/noise/heat exposure and safety; inclusion/trust and life satisfaction; and, critically, age-, education- and occupation-specific net migration and two-/five-year retention. OECD and European Commission evidence already demonstrates that affordability, digital connectivity and the wider living environment belong alongside employment opportunity in measuring regional attractiveness.

7.3.6 From utilities as services to utilities as critical relocation assets

Utilities have traditionally been treated as “background” urban services: electricity, water, sanitation, telecommunications, waste and heating were expected to function reliably and therefore attracted limited attention in assessments of city competitiveness. This assumption is weakening. Climate change, electrification, digitalization, cyber risk, water scarcity and rapidly growing electricity demand are making the reliability, resilience and affordability of utilities increasingly relevant to where people and firms choose to locate. The shift is therefore from viewing utilities simply as service-delivery systems to treating them as strategic assets supporting quality of life, economic continuity and talent attraction. There is direct evidence linking infrastructure quality with talent attractiveness. OECD analysis of regional attractiveness finds that non-work and non-pecuniary factors increasingly influence location decisions and that fast Internet access is a significant determinant of international talent attraction. Broadband quality is also associated with foreign investment, demonstrating that digital infrastructure can simultaneously attract workers and firms (OECD, 2023b). Similarly, Mercer’s assessments of locations for international employees explicitly incorporate infrastructure and public-service conditions into quality-of-living evaluations used for global mobility decisions (Mercer, 2024). These findings are particularly important in an era of hybrid and remote work: reliable electricity and connectivity determine whether skilled workers can effectively participate in digital labor markets from a particular city. The World Bank estimates that infrastructure disruptions caused by natural hazards, poor maintenance and mismanagement cost households and firms in low- and middle-income countries at least US$390 billion annually. It also estimates that every US$1 invested in more resilient infrastructure in developing countries can generate approximately US$4 in benefits (Hallegatte et al., 2019). Electricity reliability is especially important: analysis using World Bank Enterprise Survey data across 80 economies found power outages negatively associated with firm productivity (Arlet, 2017). Utilities therefore influence not only residential comfort but also productivity, investment risk and business continuity. Recent crises illustrate how these risks become city-attractiveness issues. During the 2021 Texas winter storm, nearly four million customers—more than 11 million people—lost electricity, with failures cascading into heating, water and natural-gas systems. Estimated direct and indirect economic losses reached US$80–130 billion (Golding et al., 2021). Cape Town’s 2015–2018 drought similarly transformed water from an assumed service into an explicit economic risk. As the city approached “Day Zero,” restrictions affected households, tourism, agriculture and businesses; the World Bank reported estimated Western Cape economic impacts of approximately US$492 million and export declines of 13–20% in 2018 (World Bank Group, 2021). The IPCC concludes with high confidence that heatwaves, droughts, floods and other climate hazards increasingly disrupt urban energy, communications, water and sanitation systems, while the interdependence of these networks creates cascading risks (IPCC, 2023).Technology-intensive investment makes the relationship even stronger. The IEA projects electricity consumption associated with data centres to increase from about 460 TWh in 2024 to more than 1,000 TWh by 2030, making grid capacity and resilience increasingly important for technology clusters (IEA, 2025). Market evidence already shows this effect: power availability and infrastructure-delivery timelines are among the most decisive site-selection criteria for North American data centres, with development shifting toward locations where electricity can be supplied more quickly (CBRE, 2025). Water-intensive industries face similar constraints. Singapore, for example, has developed reclaimed NEWater, desalination and industrial water recycling as elements of national resource resilience. Since 2024, new large front-end semiconductor fabrication facilities must achieve at least a 50% water-recycling rate; Singapore’s water agency explicitly links these measures to business competitiveness and resource resilience (PUB, 2023). Digitalisation also creates a new dimension of utility risk: cyber resilience. The IEA warns that greater connectivity expands the attack surface of electricity systems and that successful cyberattacks can produce physical damage and widespread service disruption (IEA, 2021). In 2024, the U.S. Environmental Protection Agency similarly reported increasing frequency and severity of cyberattacks against community water systems, demonstrating that infrastructure reliability can no longer be assessed solely through physical engineering standards (U.S. EPA, 2024)

Implications for city attractiveness

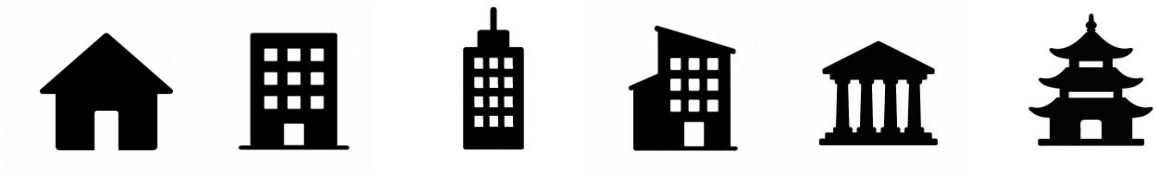
Utility resilience should be treated as part of a city's talent and investment proposition, rather than merely as an operational responsibility. A resilient city offers households confidence that heat, water, electricity and connectivity will remain available during shocks; it offers firms continuity of production and digital operations; and it enables hospitals, universities and other knowledge institutions to maintain critical services. Consequently, investment in grid redundancy, distributed generation and storage, water reuse, stormwater systems, smart monitoring, cybersecurity, circular resource systems and priority recovery protocols should increasingly be understood as investment in economic attractiveness as well as infrastructure resilience (OECD, 2024). Future city-attractiveness frameworks should therefore complement conventional indicators such as jobs, housing, culture and transport with measures of utility resilience, including: electricity outage frequency and duration; percentage of critical facilities with backup or distributed power; water stress, reserve capacity and reuse rates; broadband availability, speed and service continuity; household and industrial energy affordability; frequency and duration of water restrictions; wastewater and waste-system reliability; infrastructure cybersecurity maturity and incident-recovery capacity; and restoration times for essential services following major shocks. Such indicators would capture an emerging reality: for mobile talent and knowledge-intensive firms, the question is increasingly not simply whether a city provides utilities, but whether those utilities will remain reliable, affordable and secure when they are needed most.

7.3.7 Housing: From gentrified iconic cities to affordable intermediate cities

Since 2020, remote and hybrid work have increased the ability of skilled workers—especially high-income, college-educated and digitally enabled workers—to separate employer location from residence. This has produced measurable movement away from some expensive city centers toward suburbs, smaller metros and second-tier regional cities. Yet it is not a wholesale exodus from global capitals: large cities retain powerful advantages in wages, specialized labor markets, universities, culture, networks and amenities, and a large share of post-pandemic moves from city centers remain within the same metropolitan area. The most defensible formulation is therefore: housing scarcity is weakening the ability of the most expensive cities to convert economic opportunity into broad-based residential attractiveness, while more affordable, connected second-tier cities are gaining a larger share of mobile talent. (OECD, 2024d; Bick et al., 2026; Li & Su, 2026). The scale of the housing problem is exceptional. UN-Habitat's World Cities Report 2026 estimates that as many as 3.4 billion people lack adequate housing. The UN's 2025 SDG assessment, using observations from 124 countries, put the global average housing-cost burden at 31% of household income in 2023. In 2024, 1.16 billion urban residents lived in slums or informal settlements. These are different measures and should not be conflated, but jointly they establish housing as a systemic urban-development constraint rather than a localized affordability problem (UN-Habitat, 2026; United Nations, 2026).

The affordability problem is disproportionately metropolitan. Across OECD functional urban areas, house prices increased by about 68% over the decade to 2023 in cities above 1.5 million residents, versus 50% in midsize, 37% in small and 16% in very small urban areas. In 2023, housing in the largest functional urban areas was 86% more expensive than in very small ones. OECD research consequently warns that unaffordable housing can prevent workers from moving to the most productive labor markets, generating poorer worker-job matching and weakening the traditional productivity advantage of agglomeration (OECD, 2024d)

Saiz (2010) established that housing supply responds less elastically where developable land is scarce and land-use regulation is restrictive. Ganong and Shoag (2017) showed that rising housing costs in prosperous US locations helped break the historical pattern in which workers migrated toward high-income regions. Hsieh and Moretti (2019) estimated that housing constraints in highly productive US cities materially distorted the geographic allocation of labor; in their model, these constraints reduced aggregate US growth over 1964–2009 by 36% relative to a less constrained spatial allocation. Exact welfare magnitudes depend on modeling assumptions, but the underlying result—that housing scarcity can prevent labor from reaching high-productivity places—is now a central result in urban economics (Saiz, 2010; Ganong & Shoag, 2017; Hsieh & Moretti, 2019). Recent evidence is even more direct. An IMF causal study of Spanish provinces over 2007–2023 finds that a 10% increase in house prices at a destination reduces migration inflows by roughly 4%, with rental costs exerting even larger effects. The authors estimate that if house prices in Spain's high-productivity provinces had merely followed inflation from 2017 to 2023, approximately 63,000 additional working-age people would have moved to those provinces. Swedish register data similarly show that high relative Stockholm housing prices reduce people's willingness to accept jobs in the metropolitan region (IMF, 2026; Eliasson & Westerlund, 2024). The post-pandemic evidence supports a redistribution toward affordable places, although “intermediate cities” should be interpreted broadly as second-tier regional cities, smaller metros and well-connected peripheral centers rather than by a single population threshold. Bick et al. (2026) find that full-time work-from-home employees migrate 40–50% more frequently than comparable commuters and disproportionately select lower-cost cities; work from home accounts for about half of the post-pandemic increase in US migration in their estimates. Li and Su (2026) document a persistent “Great Reshuffle” through 2024 in which high-income and remote-capable households disproportionately moved toward suburbs and smaller cities, while housing costs subsequently rose in many receiving areas. In England, official longitudinal data show that Manchester, Bristol, Leeds, and Brighton and Hove attract graduates at rates above Inner London's 33% inward-graduate rate on the ONS cohort measure (Bick et al., 2026; Li & Su, 2026; ONS, 2024). However, the narrative must not be overstated. First, much decentralization is metropolitan rather than interurban: research on the “donut effect” finds that roughly three-fifths of households leaving large-city centers relocated within the same metropolitan area. Second, high prices do not repel everyone equally. Ganong and Shoag (2017) find the deterrent is particularly important for lower-skilled households; Chinese evidence similarly shows that expensive destinations can “select” migrants toward higher education levels because higher-skilled workers can absorb housing costs better. A 2026 study of China's urban hierarchy nevertheless finds that excessive housing pressure eventually suppresses skilled migration as well. Thus, housing scarcity first changes the composition of who can access successful cities before necessarily causing aggregate economic decline (Ganong & Shoag, 2017; Liu & Su, 2021/2024; Huang, 2026). The drivers are cumulative rather than singular. Restrictive zoning and slow approvals suppress supply elasticity; land scarcity and rising construction costs raise marginal production costs; short-term rentals can remove housing from the long-term market in high-tourism neighborhoods; cheap credit and investor demand amplify prices where supply is inelastic; and insufficient social or cost-rental housing leaves moderate-income residents fully exposed to market cycles. These effects are locally important but should not be misrepresented as the principal explanation for citywide housing crises; structural under-supply is typically larger (Barron et al., 2021; Garcia-López et al., 2020; OECD, 2023).



The policy evidence consequently favors portfolios rather than single instruments: increase housing supply where demand is strongest; legalize more types and densities of housing; compress permitting time; use public land strategically; preserve and expand social/cost-rental housing; regulate professionalized short-term rentals where they materially remove residential stock; tax persistent vacancy or under-used land; convert suitable obsolete offices; and combine tenant stability with supply expansion. Auckland's broad upzoning, Austin's rapid housing expansion, Vienna's long-lived limited-profit sector, Calgary's office conversions, Singapore's public-land and housing system, and Paris's recent rent-regulation evaluation illustrate different parts of this portfolio. Conversely, San Francisco rent-control evidence illustrates why tenant protection without supply measures can protect incumbents while reducing the long-run rental stock (Diamond et al., 2019). Overall conclusion: The emerging competition is not simply global capital versus smaller city. It is increasingly expensive, supply-constrained urban systems versus affordable, supply-responsive and well-connected urban systems. Intermediate cities have an opportunity because they can offer a combination of opportunity, amenities, universities, connectivity and attainable housing. But the advantage is fragile: when incoming talent encounters inelastic housing supply, the same success can rapidly recreate displacement and affordability problems in the receiving city (OECD, 2026c; Li & Su, 2026).

Affordability, supply elasticity, and exclusion from opportunity

A productive city may offer a nominal wage premium, but the relevant household calculation is the wage premium net of housing and commuting costs. As housing consumes a larger portion of income, the effective return to migration falls. This insight explains why metropolitan productivity can continue to rise even as the city becomes less attractive to households that cannot monetize its wage premium sufficiently (Moretti, 2013; Ganong & Shoag, 2017). The standard 30% housing-cost threshold is imperfect—high-income households can spend more without deprivation, whereas poor households may experience hardship below 30%—but it remains a useful burden indicator. UN-Habitat uses the measure in global affordability monitoring, and Eurostat's “housing cost overburden” measure uses an even stricter 40% threshold. In the EU, the 2024 overburden rate was 9.6% in cities against 5.6% in rural areas, reinforcing the metropolitan dimension of the problem (UN-Habitat, 2020; Eurostat, 2025). Housing supply elasticity determines whether an economic boom predominantly produces more people and homes or higher land and housing prices. Saiz's seminal framework shows that both physical geography and regulatory restrictions matter. Subsequent research emphasizes that when productive, dense cities restrict marginal development, rising demand is increasingly capitalized into prices rather than absorbed by additional dwellings (Saiz, 2010; Baum-Snow, 2023). Permitting delays function economically like an additional development tax because land and financing must be carried while approval remains uncertain. Recent OECD evidence illustrates the magnitude: Spanish housing projects can face approval processes lasting up to two years, while OECD analysis of Portugal reported average municipal permit times in 2023 of roughly 545 days in Lisbon, 453 in Porto, 548 in Coimbra and 272 in Funchal. Portugal's 2024 reforms introduced statutory deadlines, tacit approval in some circumstances and abolition of the traditional occupancy permit. These examples show that “restrictive zoning” should be measured not just through maps and allowable density but through time and uncertainty (OECD, 2025a, 2026c). Construction costs create a separate constraint. Even after land is zoned and permission granted, projects will not start if achievable rents or sale prices cannot cover construction and finance. OECD analysis estimates that apartment construction costs in Dublin are 15–30% higher than in comparable European cities, contributing to a situation in which only roughly the top sixth of the income distribution can afford newly built rental apartments without subsidy. More broadly, OECD analysis identifies higher materials costs, construction labor shortages, weak sector productivity and financing costs as major reasons residential investment has remained sluggish after the pandemic (OECD, 2025b).

Tourism, investment demand, and the conversion of homes into assets

Short-term rental platforms increase the return from using housing as visitor accommodation rather than as long-term residential stock. The strongest literature does not claim that Airbnb causes the entire affordability crisis; rather, it demonstrates that where platform activity is concentrated and housing supply is tight, conversion at the margin raises local rents and prices. Across US ZIP codes, Barron et al. (2021) estimate a 1% increase in Airbnb listings raised rents 0.018% and house prices 0.026%; at median Airbnb growth, the estimated contribution was approximately $9 to monthly rent and $1,800 to house prices per year, representing around one-fifth of observed rent growth and one-seventh of price growth in their sample. Barcelona produces stronger local effects because tourism is exceptionally concentrated. Garcia-López et al. (2020) estimate that Airbnb activity increased rents by about 1.9% and transaction prices by about 4.6% in the average affected neighborhood, with effects much larger in the most Airbnb-intensive neighborhoods. The result strongly supports neighborhood-level regulation in tourism hotspots, but it also cautions against treating citywide averages as sufficient: a relatively modest citywide short-term-rental share can transform particular historic districts (Garcia-López et al., 2020). Barcelona illustrates the ongoing pressure. At the end of 2025 it had 10,632 licensed tourist-use dwellings. The city has announced that the licenses will not be renewed under the current policy framework, with more than 10,000 units intended to return to ordinary residential use by the end of 2028. Because this conversion is still prospective, it should be treated as a policy experiment rather than evidence of a successful outcome (Barcelona City Council, 2025). Investment demand is more complicated. Housing is simultaneously shelter and an investable asset. Long periods of low interest rates raised asset values and encouraged capital to flow into property, especially in globally connected cities (OECD, 2022). A recent international study covering 57 cities in 15 countries finds that residential REIT capital flows causally increased multifamily property prices; interestingly, they were associated with lower rents, indicating that institutional investment can expand professionally managed rental supply even while making asset ownership more expensive. The evidence therefore supports monitoring speculative and institutional ownership but does not support a blanket assumption that every institutional buyer reduces rental supply (Banti, 2025). Vacant-property and land speculation can nevertheless restrict effective supply. OECD evidence on Vancouver reports that the city's Empty Homes Tax was associated with a 25.4% reduction in residential vacancies, largely through properties returning to the rental market. The Netherlands similarly illustrates how land held in anticipation of capital gains can constrain development even where land is formally designated for housing (OECD, 2022a, 2025a).

Gentrification, displacement, and the citizenship contract

Gentrification is best understood as several processes rather than a single outcome: reinvestment, amenity improvement, rising prices, demographic change, cultural displacement and—in some cases—physical displacement. In US large-city centers, neighborhoods that had among the lowest college-graduate shares in 1980 became some of the most educated by 2017, reflecting the return of high-skilled households to amenity-rich central neighborhoods (Couture & Handbury, 2023). But “gentrification causes mass eviction” is too simplistic. Analysis of roughly six million eviction cases across 72 US metropolitan areas finds that most formal evictions occurred in persistently low-income neighborhoods rather than in neighborhoods experiencing rapid gentrification. NYC Medicaid data similarly find little evidence that neighborhood gentrification dramatically increased mobility among low-income children, though it could affect the distance of moves and who subsequently enters neighborhoods. Other research shows that impacts differ substantially by race and neighborhood context (Hepburn et al., 2024; Dragan et al., 2020; Hwang & Ding, 2020).

This does not make displacement irrelevant. Qualitative comparative work across 14 cities documents financial insecurity, loss of community institutions, cultural displacement and altered access to services even when households do not physically move (Anguelovski et al., 2021). For a city's "citizenship contract," these softer forms of exclusion matter: a teacher who must commute 70 minutes, an artist unable to rent workspace, or a nurse who shares overcrowded accommodation may formally remain part of the metropolitan economy while having much weaker access to the benefits of urban life. The supply-displacement relationship also requires nuance. New market-rate housing can accompany gentrification because developers build where demand is strong, but restricting new construction does not eliminate that demand—it redirects richer households toward the existing stock. Evidence from San Francisco suggests nearby new market-rate development can modestly lower rents and reduce the probability that incumbent residents move to lower-income ZIP codes, even as it attracts higher-income newcomers. This is why preserving communities generally requires both additional supply and targeted anti-displacement measures, rather than treating them as alternatives.

Comparative city cases

No global official dataset simultaneously supplies consistent city-level median rents, cost burdens, social housing, short-term rentals, skilled migration and commute time. Geographic units differ—city proper, metropolitan area and functional urban area—as do definitions of social housing and rental burden. The below table therefore uses the latest credible official or high-quality value available and leaves cells blank rather than manufacturing comparability. The "intermediate" cases are second-tier cities in their national/global urban hierarchy; they are not necessarily below the OECD's 1.5-million FUA threshold.

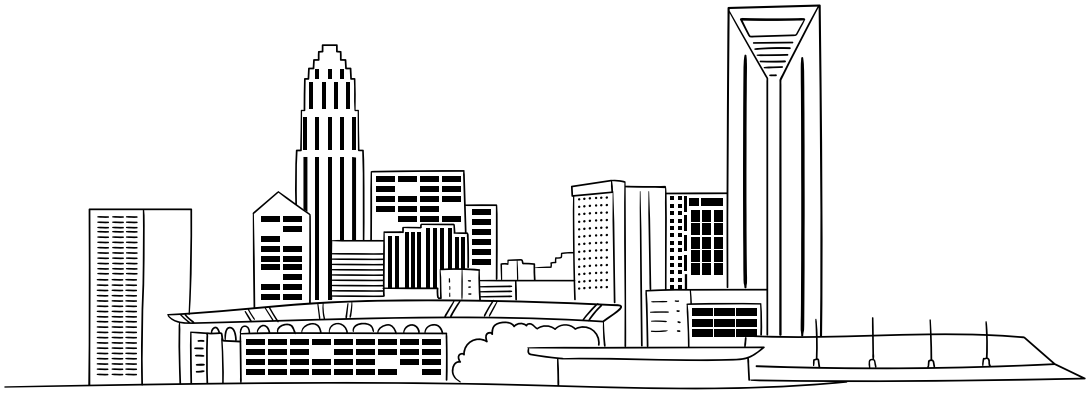
City / urban role	Rent / house-price indicator	Housing-cost burden	Supply responsiveness proxy	Short-term-rental pressure	Social / affordable housing	Skilled-worker migration proxy	Commute / access indicator
San Francisco — iconic	ACS 2024 median gross rent **$2,448**; 2020–24 median owner-occupied value **$1.395m**.	About **39.6% of renter households** spend ≥30% of income on housing in 2024 ACS-derived data.	**Low.** Only 3,301 units were under construction in the 2026 Q2 pipeline, against roughly 420,000 existing units—less than 1% of stock.	About **7,724 active listings** in Aug. 2026; ≈1.8% of total housing units, but commercial platform counts are not equivalent to permanently removed homes.	No internationally comparable "social housing share"; US system mixes public housing, tax credits, vouchers and inclusionary units.	Strong post-2020 outward-migration signal; SF was among expensive US metros with accelerated pandemic-era outflows.	Mean journey to work about **30.4 min** in Census QuickFacts 2020–24.
Austin — intermediate / second-tier	ACS 2024 median gross rent **$1,770**; 2020–24 median owner value about **$555,300**.	City monitoring puts overall cost-burden near **28% of households**; burdens are much higher among low-income residents.	**High recently:** housing stock grew roughly **30% / 120,000 units from 2015–24**; median market rent fell from $1,546 in Dec. 2021 to $1,296 in Jan. 2026 in Pew's market series. (PCT, 2026)	Licensed/unlicensed split prevents a reliable citywide share; official open data track licenses but do not capture all activity.	No tenure-comparable social-housing percentage. City operates income-restricted programs and bond-funded affordable housing.	The city continued adding population while rents declined, indicating that new supply can accommodate demand without equivalent rent inflation.	Mean commute about **23.7 min** in 2020–24 Census data.
London — iconic	Average private rent **£2,332/month in Aug. 2026**; average house price roughly **£550,000 in Jul. 2026**.	ONS private-rental affordability ratio **41.6% of median renting-household income in 2024**; EHS mean measure was 46% in 2023–24.	**Low/moderate:** earlier GLA data showed ~186,000 net additional homes over five years, roughly around 1% of stock annually; demand substantially exceeds affordable supply.	**Data gap:** London has lacked a comprehensive STR registration system; GLA explicitly noted that it could not reliably track holiday lets by borough.	**21% of London households** were social renters in 2024–25.	Inner London's inward-graduate-migration rate was **33%** in the ONS cohort analysis; still high, but below Manchester, Bristol, Leeds and Brighton.	2021 US Census commuting data were heavily distorted by pandemic restrictions.
Manchester — intermediate / second-tier	Average private rent about **£1,373/month in Aug. 2026**; average house price about **£252,000 in Jul. 2026**.	UK North-West housing costs are materially below London, but regional averages should not be assigned to Manchester.	**Relatively responsive:** Manchester reported **4,766 homes completed in the latest year**, a high output relative to city size.	No data available	2021 Census: **63,276 of 214,730 households**, about **29.5%**, were socially rented.	**Graduate inward-migration rate above Inner London's 33%**, making Manchester one of England's strongest graduate attractors.	GM's 2024 Travel Diary Survey provides trip behavior but not a directly comparable all-worker city mean.
Paris — iconic	Private rents averaged about **€26.3/m² at Jan. 2025**; newly occupied units were around €28.3/m².	No data available	**Constrained but buffered by social supply:** Paris has financed more than **130,000 SRU social dwellings since 2001**, but the waiting list remains exceptionally large.	Severe central pressure; during the exceptional Aug. 2024 Olympic period Grand Paris recorded ~150,000 Airbnb offers and **61% were concentrated in Paris**. This should not be treated as a normal-year housing-share estimate.	**276,032 social dwellings = 23.2% of main residences** at Jan. 2025; about 327,000 applicant households registered.	Paris remains an exceptionally deep skilled labor market; the evidence supports access constraints more strongly than "talent collapse."	Older INSEE evidence finds that more than half of workers whose job was in Paris faced intermunicipal car travel above **50 minutes**, illustrating the housing-access trade-off, but it is not a current all-mode mean.
Lyon — intermediate / second-tier	2024 median private rent **€13.6/m² in Lyon/Villeurbanne**; market/new-let median €14.5/m².	No data available	No comparable elasticity estimate; however, the metropolitan system combines private supply with a substantial social stock rather than depending entirely on market rent.	No data available	Public social rental stock has exceeded **23% of metropolitan residences**; the metropolitan authority reports more than 200,000 social homes in 2026.	Lyon is used here as a housing-cost and social-stock comparator.	In 2022, **62.8% of employed Lyon residents worked inside Lyon itself**, reducing some intermunicipal commuting exposure.

The city comparisons support three conclusions. First, the price gap is economically large: London–Manchester and Paris–Lyon offer clear national examples of substantially cheaper second-tier labor markets, while Austin demonstrates how rapid construction can reverse rent escalation even in a fast-growing technology center. Second, intermediate-city attractiveness is not synonymous with "cheapness": Manchester and Lyon combine universities, large employment bases, culture, transport networks and significant housing stocks. Third, the absence of comparable data on STRs, skilled net migration and commute times is itself a policy finding: cities generally measure housing, tourism, labor and transport in institutional silos even though the strategic question is their interaction.

Housing costs and talent mobility: empirical evidence

The empirical literature can be ranked by how closely it identifies the proposed mechanism.

Evidence	Finding	Relevance to the thesis	Strength / caveat
Spain, 2007–23; instrumental-variable migration model (IMF, 2026)	+10% destination house prices → about **–4.0% migration inflows**; +10% origin prices → +2.8% outflows; rental effects larger. Estimated ~63,000 additional working-age movers to high-productivity provinces absent excess 2017–23 price appreciation.	Direct evidence that expensive housing prevents labor from accessing productive destinations.	**Very strong** causal design; province rather than city level; not restricted to graduates.
US regional convergence (Ganong & Shoag, 2017)	High housing costs increasingly offset wage gains in prosperous places and disproportionately deter lower-skill migration.	Establishes housing as a barrier to labor-market sorting and social mobility.	**Strong** historical/structural evidence; strongest for lower-skill labor, so "talent outflow" alone understates the exclusion mechanism.
US spatial misallocation (Hsieh & Moretti, 2019)	Housing restrictions in high-productivity places distort worker location; model estimates large aggregate growth losses.	Shows why affordability is an economic-competitiveness issue, not merely a social-policy issue.	**Strong structural model**, but exact GDP magnitudes are model-dependent.
Stockholm job acceptance/mobility (Eliasson & Westerlund, 2024)	High relative Stockholm housing prices and homeownership reduce geographical labor mobility to the high-productivity region; some workers commute rather than relocate.	Directly connects housing prices, job opportunities and commuting.	**Strong population-register evidence**; Swedish institutions are distinctive.
US remote work migration (Bick et al., 2026)	Full-time WFH workers migrate **40–50% more** than otherwise similar commuters and tend to move to lower-cost cities; WFH explains about half of the post-COVID migration increase.	Mechanism making skilled workers newly sensitive to residential affordability.	**Very relevant post-2020 evidence**; remote-capable workers are not representative of all occupations.
US "Great Reshuffle" (Li & Su, 2026)	High-income/remote workers disproportionately shifted toward suburbs and smaller cities; pattern remained visible through 2024, and receiving locations experienced housing-cost pressure.	Closest evidence to the "iconic → intermediate" narrative.	**Strong descriptive/econometric evidence**, but destinations include suburbs as well as independent intermediate cities.
England graduate mobility (ONS, 2024)	Manchester, Leeds, Bristol and Brighton have graduate-inward rates above Inner London's 33% cohort rate.	Direct proof that second-tier cities can outperform the capital in graduate attraction on a defined metric.	**Excellent administrative data**, but the measure is inward migration relative to local GCSE cohort, not annual net skilled migration.
China urban hierarchy (Huang, 2026)	Skilled migration still tends upward toward high-tier cities, but housing pressure has an inverted-U relationship: beyond a point it suppresses talent mobility.	Shows that agglomeration remains powerful but eventually collides with housing affordability.	Valuable counterexample to a simplistic "talent leaves superstar cities" story.



The combined evidence therefore suggests three stages of housing-driven talent sorting.

At moderate housing costs, highly productive cities continue to draw talent because wage, career and amenity premiums exceed the housing penalty. This explains why London, Paris, San Francisco, New York, Stockholm and Chinese top-tier cities have not simply emptied despite extraordinary prices. Agglomeration economies remain powerful, and highly skilled workers often tolerate costs that other households cannot (Ganong & Shoag, 2017; Huang, 2026).

As costs rise, the city becomes increasingly selective. Lower-wage workers, young households, families needing more space, essential-service workers and creative occupations are the first to face exclusion. This may produce a misleading appearance of “successful” talent concentration because the remaining population has a higher average education or income. In reality, occupational and socioeconomic diversity is declining. China's migrant-selection evidence and the US regional-convergence literature are especially clear on this point.

Beyond a higher threshold—especially where remote work weakens the need for daily presence—some skilled and high-income households also become mobile. They can preserve the wage/network benefits of a major labor market while purchasing more space or higher quality of life elsewhere. This is the post-2020 mechanism behind the “Great Reshuffle.” Yet the destination does not automatically have to be a distant intermediate city. It can be a suburb, exurb, university town, nearby secondary metro or smaller city linked by rail or occasional flights.

OECD's 2026 work on intermediary cities explicitly finds that affordability and quality of life can attract remote workers, but stresses that transport connections and digital infrastructure determine which intermediary cities benefit (OECD, 2026d). This distinction is crucial for strategy. The most plausible future winners are not simply inexpensive places. They are cities where a household can combine lower housing cost + meaningful local employment + a university/skills ecosystem + urban amenities + reliable digital infrastructure + regional/national connectivity + reasonable job accessibility. Roskilde's roughly 20-minute rail access to Copenhagen is an illustrative form of this advantage; OECD also highlights intermediary cities linked strongly to major labor markets through commuting networks. There is also a danger of success feeding on itself. Li and Su (2026) find that receiving suburbs and smaller cities experienced increased housing demand after attracting remote and high-income movers. Without supply elasticity, today's affordable intermediate city can become tomorrow's unaffordable destination. The strategic advantage is therefore not the current price level but the ability to absorb future demand without converting most of it into land rents.

Policy levers and intervention evidence

The empirical record favors packages in which supply expansion is the foundation, social/tenant protection preserves inclusion, and transport connects housing to opportunity.

Lever	Evidence and example	Assessment
Upzone and legalize density	Auckland's 2016 reform upzoned roughly three-quarters of residential land. Recent research attributes about **46% of permits over the following seven years** to the reform and reports housing starts per capita roughly doubling within five years. A companion estimate puts rents after eight years around **23% below a synthetic-control counterfactual**.	**Strong evidence.** Broad, binding reform is more effective than isolated rezoning; infrastructure and neighborhood design still matter.
Build fast enough to turn demand into units rather than prices	Austin added roughly **120,000 dwellings / 30% to its stock from 2015–24** following zoning, corridor-density, affordable-housing and permitting reforms. Median market rents subsequently fell substantially even while population continued to grow.	**Compelling case evidence**, though multiple reforms and a cyclical construction boom mean no single policy deserves all causal credit.
Shorten permitting and reduce uncertainty	Portugal's pre-reform municipal permit times exceeded a year in several major cities; 2024 reforms imposed time limits and simplified approvals. Spain's OECD review similarly identifies approvals that can reach two years as a supply barrier.	**High-priority enabling reform.** Measure P50 and P90 approval times, not merely statutory deadlines.
Maintain a large permanent social/cost-rental sector	Vienna's limited-profit system produces below-market cost rents, reinvests surpluses and competes with private rentals. OECD finds the sector has exerted broader price-moderating effects; Vienna's housing model reports roughly **62% of residents living in subsidized housing**, including municipal and limited-profit units.	**Strong long-run model**, especially for social mix. Hard to reproduce quickly because it rests on decades of institutions, financing and land policy.
Use public land as a strategic asset	Vienna's housing fund has acquired and prepared land for subsidized development since the 1980s. Singapore provides a different model: HDB has built more than **1.25 million flats housing close to 80% of residents**, while government land sales are actively calibrated to future private supply. (Vienna Housing Fund, 2025)	Public land can capture land value for housing instead of selling scarce sites purely to maximize short-run revenue. Institutional context matters.
Adaptive reuse where buildings are physically suitable	Calgary's downtown conversion program was supporting **21 projects, 2.68m ft² of conversions and 2,667 new homes** by 2026; a separate non-market conversion program is converting ~100,000 ft² into 128 affordable homes.	**Useful but not a universal substitute for new construction.** Floorplates, plumbing, light, seismic/fire rules and acquisition cost make many offices uneconomic to convert.
Regulate STRs in high-pressure neighborhoods	Causal studies find Airbnb raises local housing costs. Barcelona plans to allow more than 10,000 tourist-dwelling licenses to expire by 2028; Valencia introduced a **2% neighborhood/district ceiling** and reported a 14% reduction in registered tourist dwellings following its moratorium/enforcement period.	**Target where entire-home STR intensity is high.** Barcelona/Valencia's newest measures are not yet mature enough to call proven affordability successes.
Rental stability, with supply safeguards	Paris's econometric evaluation estimates rent regulation made rents roughly **5% lower over 2019–25 than the counterfactual**, and finds no durable reduction in Paris rental supply attributable to the policy over the study window.	Evidence is more favorable than simple theory predicts, but external validity remains uncertain. Enforcement is critical.
Avoid rigid rent protection without supply policy	San Francisco's 1994 rent-control expansion reduced incumbent renter mobility by about **20%**, but landlords responded by reducing rental supply approximately **15%**, raising concerns about long-run citywide rents.	Tenant security can be valuable, but design matters. Combine predictable rent stabilization with construction, preservation and anti-conversion policy.
Tax persistent vacancy / mobilize under-used property	OECD reports Vancouver's Empty Homes Tax was associated with a **25.4% reduction in vacancies**, much of it through conversion to rental use.	Useful where verified vacancies are material; requires high-quality property registries and exemptions for legitimate temporary vacancy.
Reduce construction cost structurally	OECD identifies standardization, modular/industrialized methods, stronger construction productivity and simpler building requirements as potential responses to very high production costs; Singapore has institutionalized prefabricated volumetric construction to reduce site labor and increase productivity.	Promising, but city leaders should measure *delivered €/m² and project duration*, not adoption of a technology as an end in itself.
Integrate housing with transport/job accessibility	OECD emphasizes that well-connected intermediary cities have a larger opportunity to absorb growth from expensive capitals; Swedish evidence shows that when housing near Stockholm is too expensive, commuting becomes a substitute for migration.	Housing affordability without access to jobs merely relocates the burden into time and transport costs.

The most robust strategic package for a successful intermediate city is consequently not “stay cheap.” It is to institutionalize affordability before scarcity becomes entrenched: reserve public land, zone for growth around transit, build a permanent non-market stock, maintain fast approvals, monitor STR conversion, permit apartments and family-sized housing, and connect neighborhoods to jobs. Waiting until prices have already doubled makes every intervention—land acquisition, social housing construction and infrastructure—more expensive. Likewise, an iconic city trying to retain talent cannot solve the problem by offering innovation visas, cultural amenities or entrepreneurship programs while allowing housing supply to remain structurally closed. OECD's regional talent work finds affordable housing, connectivity and the presence of universities/international students are themselves statistically related to attraction and retention. Housing policy is therefore talent policy. (OECD, 2023b).

Indicator	Recommended definition	Why it matters
Housing-cost burden	Share of households spending >30% and >40% of disposable income on rent/mortgage + utilities, segmented by income quintile, tenure, age and occupation.	Averages can hide severe exclusion among teachers, nurses, young households and low-income renters. UN/Eurostat thresholds enable benchmarking.
Residual income after housing	Disposable income less housing, utilities and essential transport costs.	Better than the 30% rule for comparing high- and low-income households.
Rent-to-income and price-to-income	Median new-contract rent / median renter income; standardized dwelling price / median household income.	Measures entry affordability rather than the cheaper rents enjoyed by long-term incumbents.
Supply elasticity	Change in housing stock divided by real price/rent growth over rolling 3–5-year periods; supplement with units completed per 1,000 residents.	Identifies whether additional demand creates homes or mainly creates higher prices (Saiz, 2010).
Permit velocity	Median and 90th-percentile days from complete application to approval, approval to construction start, and start to completion.	Captures regulatory delay and implementation failure rather than zoning on paper.
Pipeline conversion rate	Completed units / approved units after appropriate construction lag.	A city with 100,000 “pipeline” units but few starts still has a supply problem.
Construction-cost barrier	Hard + soft construction cost per m², land cost per permitted m², finance cost, and cost-to-income ratio.	Distinguishes zoning scarcity from projects that are legally allowed but financially infeasible.
Housing diversity	Units by tenure, bedroom count, building type and affordability band.	A city can produce many studios yet remain inaccessible to families or essential workers.
Social/non-market housing capacity	Non-market homes as % of main residences; annual additions/losses; waitlist per available unit; average waiting time.	Stock, not annual spending, determines long-run buffering capacity. Vienna and Paris illustrate the value of measuring permanent assets.
Public-land housing yield	Publicly owned developable hectares; % allocated to housing; homes delivered per site; affordability duration.	Makes public-land strategy auditable rather than anecdotal.
STR pressure	Active *entire-home* STRs available >60/90 nights per year divided by total occupied housing, at neighborhood level; include nights booked.	Avoids conflating occasional home sharing with professional conversion of residential stock. Airbnb effects are strongly spatially concentrated.
Vacancy / second-home pressure	Long-term vacant homes and second homes as % of stock, distinguishing frictional, renovation and speculative vacancy.	Enables evidence-based vacancy taxation rather than assuming all empty units are recoverable.
Investor concentration	Share of purchases and rental stock owned by institutional investors, multiple-property owners and non-residents.	Captures financialization while allowing analysis of whether investors add or remove rental capacity.
Displacement	Eviction filings/executions, forced moves, low-income household exits, school-cohort turnover, rent increases after tenant changes, and destination of displaced households.	Gentrification cannot be inferred reliably from rising prices alone.
Net skilled migration	Annual inflows minus outflows by education, occupation, age, household type and remote-work status, measured for both city and FUA.	The core metric needed to test the “talent redistribution” hypothesis rather than relying on anecdotes.
Graduate attraction and retention	Graduate inflow, graduate retention after university, and five-/ten-year persistence.	ONS evidence shows why attraction and retention should be separated.
Essential-worker retention	Vacancy, turnover and residential distance for teachers, nurses, police, care workers, construction workers and hospitality staff.	Direct measure of whether the city's basic service economy can live within its own labor market.
Jobs reachable from affordable housing	Number and wage value of jobs reachable within 30/45/60 minutes by public transport, cycling and car from dwellings affordable at 30%, 60%, 80% and 100% of median income.	Integrates housing and transport instead of mistaking cheap peripheral housing for genuine affordability.
Commute burden	Mean, median and P90 one-way commute, segmented by income and occupation; add transport expenditure.	Captures the hidden price of spatial displacement. Stockholm evidence shows commuting can substitute for residential migration.
Adaptive-reuse productivity	Vacant commercial m² converted, units created, public subsidy per unit and time to occupation.	Allows office conversion to be compared objectively with demolition/new construction. Calgary provides a useful implementation benchmark.

Several evidence gaps should remain explicit.

First, the global “iconic-to-intermediate” talent trend is not yet captured by a harmonized international dataset. The strongest evidence comes from the United States, England, Spain, Sweden and China, with heterogeneous definitions of talent and geography. The thesis is consequently well supported as a directional structural trend, not yet as a universal quantified global flow.

Second, remote work creates a structural break around 2020. Migration relationships estimated before the pandemic remain important for identifying housing mechanisms, but they cannot simply be extrapolated to a world in which some workers need to visit headquarters only one or two days per week. Bick et al. (2026) and Li and Su (2026) suggest that residential choice has become substantially more elastic for remote-capable workers.

Third, “talent” should not be allowed to obscure essential workers. A city that retains software engineers while displacing teachers, nurses, care workers, construction workers, hospitality employees and artists can remain statistically high-skilled while becoming operationally brittle and socially homogeneous. Housing affordability is therefore simultaneously a talent-attraction, productivity, public-service and social-cohesion issue (OECD, 2024; Newton et al., 2026).

Fourth, affordable intermediate cities need to measure their own exposure to success. Inflows of remote/high-income workers can raise housing demand faster than local wages. The relevant early-warning indicator is not whether the city remains cheaper than London, Paris or San Francisco today; it is whether rents are beginning to outrun local incomes while completions and permitting slow. That is precisely the pathway through which yesterday's affordable alternative can become tomorrow's exclusionary city (Li & Su, 2026; OECD, 2026d).

The evidence therefore justifies a refined strategic statement:

Housing is now one of the binding constraints on urban attractiveness and access to opportunity. Iconic cities retain strong agglomeration advantages, but where housing supply is inelastic, rising costs increasingly exclude lower- and middle-income workers and can also redirect mobile skilled households toward more affordable suburbs, regional centers and intermediate cities. The emerging winners will not simply be cheaper cities, but well-connected cities able to add diverse housing rapidly enough to preserve affordability as they attract people and jobs.

That formulation is more empirically defensible than predicting the decline of global capitals. It captures the deeper change in the geography of talent: urban opportunity is becoming more distributed because technology has increased residential choice at exactly the moment that housing scarcity has made the most successful cities unusually expensive. The durable competitive advantage will therefore belong to cities that can increase housing supply without destroying identity, protect social diversity without freezing the housing stock, and connect affordable homes to opportunity without imposing excessive commuting costs

7.3.8 From pollution and traffic jams to green-efficient vehicles and urban air mobility

The statement is supported by strong evidence, but the transition is broader than a technological substitution of conventional cars with electric or flying vehicles. The emerging model is increasingly centred on accessibility, cleaner transport, multimodality and reduced dependence on private cars, with urban air mobility (UAM) likely to play a specialised rather than dominant role.

Why the traditional urban-mobility model is becoming unsustainable

Congestion and transport-related pollution directly undermine urban attractiveness and quality of life. The World Health Organization estimates that ambient air pollution caused approximately 4.2 million premature deaths globally in 2019, while transport is an important source of particulate matter, nitrogen oxides and greenhouse-gas emissions (WHO, 2024). Congestion creates an additional accessibility problem: in many large developing cities, less than 20% of jobs can be reached within an hour using affordable transport, while some low-income commuters spend more than three hours per day travelling (World Bank, 2024). Thus, mobility performance increasingly concerns not simply how fast vehicles move, but how reliably and affordably people can reach jobs, education, healthcare and other opportunities. OECD/ITF consequently argues for shifting transport policy from maximizing mobility toward maximizing sustainable accessibility (OECD/ITF, 2024).

Electrification is accelerating—but it is only part of the transition

The technological transition is already measurable. Global electric-car sales exceeded 17 million in 2024, representing more than 20% of new-car sales. Electric buses are also expanding rapidly: more than 70,000 electric buses were sold globally in 2024, a 30% annual increase. Meanwhile, the global stock of public EV charging points exceeded five million, having doubled since 2022 (IEA, 2025). These trends demonstrate a clear shift toward cleaner and more energy-efficient road vehicles. However, electrification alone does not solve congestion, inefficient land use or car dependency. Electric cars still require road and parking space and generate non-exhaust pollution from tyres, brakes and road wear. The IPCC therefore frames sustainable mobility through an Avoid–Shift–Improve approach: avoid unnecessary motorised travel through better land-use planning; shift trips toward public transport, walking and cycling; and improve remaining vehicles through electrification and efficiency (IPCC, 2023). Compact, walkable, mixed-use development reduces travel distances and facilitates public and active transport, whereas dispersed, automobile-oriented development locks cities into higher energy consumption and emissions. For emerging urban areas, more compact and walkable development could reduce future urban energy use by approximately 20–25% by 2050 (IPCC, 2022).

The deeper shift is toward integrated, multimodal cities

Evidence therefore supports a transition combining clean public transport, EVs, walking, cycling, shared mobility, low-emission zones, better logistics and transit-oriented development. The World Bank reports, for example, that BRT investments reduced average corridor travel times by about 34% in Lima and more than 50% in Dar es Salaam, illustrating how high-capacity public transport can directly return time to citizens while improving accessibility (World Bank, 2024). Transit-oriented development similarly concentrates housing, jobs and services around mass transit, reducing dependence on long car journeys (World Bank, 2017).Regulatory interventions provide further evidence. Following the successive phases of London's Ultra Low Emission Zone, roadside NO_2 concentrations in 2024 were estimated to be 27% lower across London than under a scenario without the ULEZ, while vehicle compliance with emissions standards reached 96.7% (Greater London Authority, 2025). Urban freight also needs attention: OECD/ITF estimates that freight transport produces around half of local air pollutants in cities, supporting the development of consolidation and urban logistics hubs that reduce inefficient delivery movements (ITF, 2024a). Shared mobility can also contribute when designed as a complement to high-capacity public transport rather than as additional vehicle traffic (ITF, 2021).

Urban air mobility: promising, but a specialised future layer

Urban air mobility represents the more experimental frontier of this transition. Electric vertical take-off and landing (eVTOL) aircraft could eventually provide fast connections for medical and emergency services, selected logistics movements, airport connections and high-value passenger trips. Importantly, public acceptance appears strongest for services with clear social value. An EASA study of approximately 4,000 European residents found that 83% initially had a positive attitude toward UAM and 71% were willing to try it, with particularly strong support for emergency and medical applications (EASA, 2021). Yet respondents identified safety, noise, security, environmental effects and integration with existing infrastructure as major concerns. Consequently, UAM should not yet be interpreted as a mass-market solution to congestion. Research emphasises unresolved issues involving aircraft certification, vertiports, air-traffic management, energy requirements, cost and integration with ground transport (Yan et al., 2024). Regulators are taking a similarly cautious approach: the FAA's Advanced Air Mobility implementation plan addresses certification, pilot training, airspace, infrastructure, security and community engagement as prerequisites for scaled operations (FAA, 2023). UAM is therefore better understood as a future complementary layer within an integrated mobility system, rather than a replacement for metros, buses, cycling, walking or conventional road transport.

Conclusion and indicators

Overall, the evidence justifies the proposed transition, with one important qualification: the central transformation is not from conventional cars to electric cars and flying taxis, but from vehicle-centred mobility to clean, accessible and time-efficient urban systems. Attractive cities will increasingly be those that reduce unnecessary travel, make necessary kilometres cleaner, and give residents reliable access to opportunities. Progress should therefore be measured through congestion and travel-time reliability; $PM_{2.5}$ and NO_2 concentrations; public-transport and zero-emission fleet shares; EV-charging availability; walking accessibility; cycling infrastructure and safety; jobs and essential services reachable within 30–60 minutes; urban-freight efficiency; and, for UAM, certification progress, safety performance, noise exposure, vertiport/ground-transport integration and public acceptance (OECD/ITF, 2024; EASA, 2021)

7.3.9 From “for citizens” to “with citizens”: Co-creation as governance

There is a shift in urban governance from delivering services for citizens toward designing policies and services with citizens. This does not mean that co-creation has become universal, but it is increasingly being institutionalized as a governance capability. Public-administration research has long argued that services are not produced exclusively by governments: citizens and communities contribute knowledge, resources and experience throughout commissioning, design, delivery and evaluation (Bovaird, 2007; Nabatchi et al., 2017). More recently, the OECD has documented the expansion of participatory budgeting, civic monitoring, citizen science, open innovation and representative deliberative processes as practical instruments of policymaking (OECD, 2022b, 2025c).

Why the shift is occurring

Urban problems increasingly involve uncertainty, competing interests and trade-offs that cannot be resolved through technical expertise alone. Climate adaptation, demographic change, digital transformation, inequality and neighbourhood-level differences require governments to combine professional expertise with citizens’ lived and local knowledge. The OECD therefore argues that meaningful citizen participation is particularly valuable for complex and long-term policy questions and should increasingly be treated as a core function of government rather than an occasional consultation exercise (OECD, 2025c). Similarly, UN-Habitat’s participatory planning work emphasizes that community knowledge can reveal spatially specific needs that conventional top-down planning often misses (UN-Habitat, 2019, 2022).

The trust dimension strengthens this argument. The 2026 OECD Trust Survey, covering 33 OECD countries and five accession candidates, found that only 31% of respondents considered it likely that people like them have a say in government decisions. The difference in trust between people who feel they have political voice and those who do not remains 47 percentage points. Moreover, only 39% believe participation in a public consultation influences government action (OECD, 2026d). Participation therefore matters not simply because people want to be consulted, but because perceived voice, responsiveness and influence are closely connected with institutional trust.

Evidence that co-creation can improve urban outcomes

There is evidence that well-designed participation can change resource allocation and service outcomes. In Brazilian municipalities, participatory budgeting shifted expenditure toward citizen priorities, particularly sanitation and health, and was associated with lower infant mortality (Gonçalves, 2014). The OECD's review of almost 300 representative deliberative processes found that more than half occurred at the local level and addressed areas such as urban planning, infrastructure and environmental policy; the evidence suggests that well-designed deliberation can improve policy outcomes and strengthen trust and legitimacy (OECD, 2020b). Such examples demonstrate the difference between merely asking citizens for opinions and incorporating citizen knowledge into actual decisions. Co-creation is equally important for digital transformation. Technology-led urbanism risks optimizing what can easily be measured rather than what residents actually need. UN-Habitat therefore advocates "people-centred smart cities," where digital strategies combine technology with community participation, digital equity, transparency and human rights (UN-Habitat, 2021). The UN E-Government Survey likewise shows rapid global progress in digital government but continuing inequalities between countries and between national and local digital-government capacity (UN DESA, 2024). Co-designing digital services with different user groups can identify barriers related to accessibility, skills, language, trust and connectivity before these become embedded in public infrastructure. For city attractiveness, the implication is broader than service efficiency. Participation can strengthen residents' sense of agency and belonging, make public interventions more responsive to neighborhood differences and increase the legitimacy of difficult decisions. The European Commission's New European Bauhaus illustrates this approach: its initial concept was developed through a six-month co-design process and explicitly links participation with sustainability, inclusion and belonging (European Commission, 2021). An attractive city, in this interpretation, is not simply a place with high-quality infrastructure but one in which inhabitants have credible opportunities to shape their environment.

Participation quality matters more than participation volume

Participation is not automatically beneficial. Arnstein's classic "ladder of citizen participation" distinguished meaningful citizen power from consultation that functions primarily as tokenism (Arnstein, 1969). Contemporary evidence reaches a similar conclusion. The OECD stresses inclusive recruitment, a clearly defined task, access to evidence, sufficient time for deliberation, transparency and a visible connection between recommendations and subsequent decisions (OECD, 2020b, 2022b, 2025b). The World Bank is similarly moving from measuring whether engagement mechanisms exist toward assessing the quality of civic/citizen engagement, including whether citizens' voices are reflected in decisions and oversight (World Bank, 2025).

It's a mistake to ask for opinion on specialized / technical topics like urbanism decisions that would require architectural skills and only a tiny faction of citizens can merit a qualified input.

Consequently, indicators should measure not only how many people participate, but who participates, how they participate and whether participation has consequences. Relevant dimensions include representativeness and inclusion; accessibility and digital inclusion; existence and quality of deliberative processes; share of municipal investment subject to participatory budgeting; transparency of information and evidence; civic trust and perceived political voice; mechanisms for feedback and accountability; and, most importantly, the proportion of citizen recommendations that receive a documented government response or produce identifiable changes in policies, budgets, services or projects. This moves measurement from participation as activity to participation as demonstrated influence—the essential distinction between governing for citizens and governing with them.

The trust dimension strengthens this argument. The 2026 OECD Trust Survey, covering 33 OECD countries and five accession candidates, found that only 31% of respondents considered it likely that people like them have a say in government decisions. The difference in trust between people who feel they have political voice and those who do not remains 47% points. Moreover, only 39% believe participation in a public consultation influences government action (OECD, 2026b). Participation therefore matters not simply because people want to be consulted, but because perceived voice,

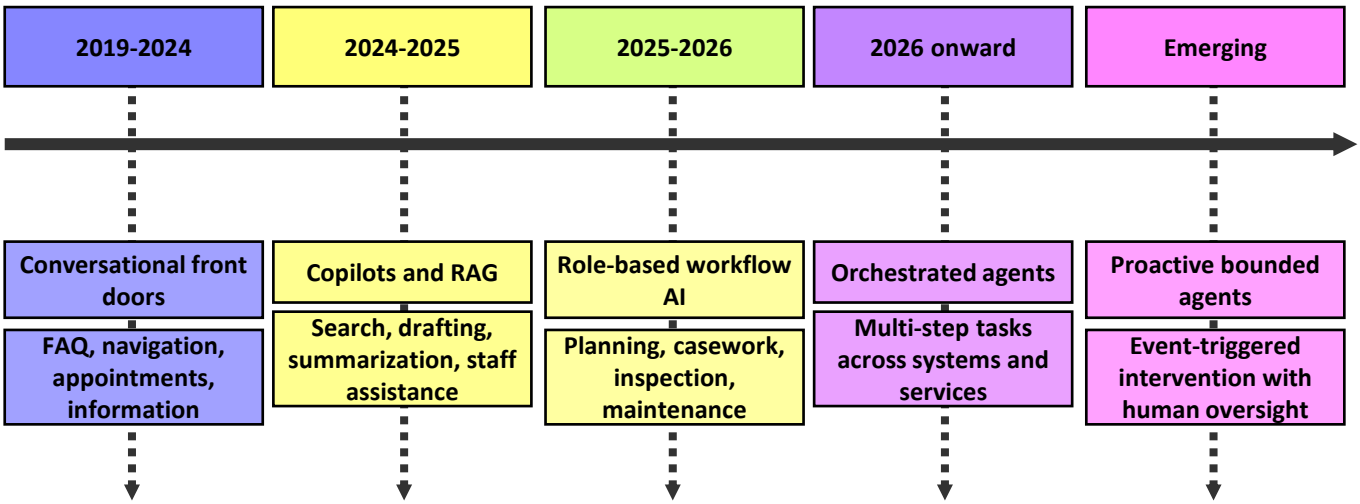
7.3.10 Artificial Intelligence: From popular Chat to role-based Agentic transformation

Cities were already using predictive analytics, optimization and multi-agent systems for traffic, inspections and social services more than a decade ago. What is changing after the mass adoption of generative AI is the operating model: from a citizen or employee asking a chatbot for an answer to role-specific AI embedded in municipal workflows, connected to authoritative data and tools and capable of completing bounded sequences of work. Pittsburgh's adaptive traffic system and Chicago's inspection model show the pre-GenAI foundation; newer deployments in Milton Keynes, New York, Madrid and Bradford show AI moving directly into planners', inspectors', social-service workers' and maintenance teams' work. (Smith et al., 2013; City of Chicago, 2015; Local Government Association [LGA], 2026a). The distinction is consequential. The LGA defines generative AI as primarily producing content in response to prompts, whereas Agentic AI can pursue a defined goal, use approved knowledge and tools, break work into steps and carry out actions within human-set boundaries. Its 2026 local-government playbook explicitly recommends designing agents around a clear "job," controlled permissions, escalation routes and accountable human owners. Peterborough's OSCAR architecture similarly maps progression from an informational "librarian," through specialist tools and cross-service "concierge" transactions, toward proactive services. (LGA, 2026a, 2026b). This supports a policy conclusion: the attractive AI city is not the city with the most pilots, but the one that converts AI into demonstrable public value while maintaining accountability. That matters to urban attractiveness because administrative quality is itself part of the citizen–government relationship: OECD evidence finds that satisfaction with administrative services is a major driver of trust in local government, while satisfaction with service speed and ease is associated with substantially higher overall satisfaction. (OECD, 2025d).

From conversation to role-based urban workflows

The GenAI-era trajectory can be represented as follows; it is an adoption path, not a complete history of urban AI, since predictive and multi-agent systems preceded modern chatbots. Buenos Aires' Boti illustrates the conversational phase—it accumulated more than 153 million conversations by February 2025 and had incorporated LLM-based generative capabilities—while current local-government architectures increasingly connect models to service-specific workflows and systems. (Government of the City of Buenos Aires, 2025; LGA, 2026a).

GenAI-era evolution of municipal AI



The practical distinction is “answering” versus “doing.” A chatbot explains what documents a resident needs; a role-based planning assistant extracts those documents, checks application completeness, retrieves precedents and prepares material for officer review. A maintenance chatbot answers questions about track standards; New York MTA’s TrackInspect combines that interface with sensor analytics that identify suspected defects and route them to inspectors. The human remains accountable, but AI increasingly participates in the workflow rather than sitting outside it. (LGA, 2026a; MTA, 2025).

The functional portfolio is already broad. Social-service triage appears in Madrid’s Paloma and AI-supported adult-social-care front doors; permitting in Milton Keynes and UK planning tools; mobility optimization in Pittsburgh; predictive maintenance in New York; emergency response in AI-assisted 911 quality assurance and disaster-response projects; public-health analytics and inspection in Chicago; urban planning in Amsterdam, where six planning lawyers tested a system that converted zoning-plan material 10–20 times faster than manual processing; procurement in Amsterdam’s experiments with extracting information and analysing tender documents; and citizen-service navigation in Bradford. (Ayuntamiento de Madrid, 2026; LGA, 2026c; City of Chicago, 2015; Municipality of Amsterdam, 2025a, 2025b).

Empirical evidence from city deployments

City	Function / AI type	Measured outcome	Governance safeguard
Madrid	Social-service triage; conversational/predictive AI	Paloma’s 2023 pilot contacted 3,000 older residents; about one-third reported unwanted loneliness, 646 accepted follow-up, >220 joined the municipal support program and 380 home visits followed. (Ayuntamiento de Madrid, 2026).	AI is explicitly a **first filter**; municipal professionals review risk and provide individualized follow-up.
Milton Keynes	Permitting/planning; GenAI workflow assistant	Officers reported **60–80% faster validation**; receipt-to-validation fell from 15.8 to 7.6 days and validation-to-decision from 53.1 to 43.2 days; estimated 1,360 officer-hours/year released. (LGA, 2026c).	DPIA, restrictions on sensitive documents during pilot, supplier-security checks; officer judgment remains final.
New York City	Subway predictive maintenance; ML + GenAI	TrackInspect detected **92% of defect locations** found by inspectors from 335 million sensor readings and 1,200 hours of audio. (MTA, 2025).	Inspectors physically verify flagged locations and feed results back into model training—explicit human-in-the-loop operation.
Pittsburgh	Mobility; decentralized multi-agent traffic control	SURTRAC’s nine-intersection field trial reduced average travel time **25.8%**, waiting **40.6%**, and estimated emissions by >21%. (Smith et al., 2013).	Bounded to signal control; performance field-tested against existing control before expansion.
Chicago	Public-health inspection; predictive ML	Reordering food inspections would identify critical violations **7.5 days earlier**; 69% versus 55% of critical violations were found in the first half of the evaluation period. (City of Chicago, 2015).	Model code/data were made reproducible and open source; inspectors retained inspection and enforcement authority.
Bradford	Citizen navigation/adult social care; GenAI assistant	Annie handles ~50 conversations/week—estimated as one full-time adviser’s workload—20% outside office hours, with **74% user satisfaction**. (LGA, 2026d).	DPIA, consent/privacy notice, PII detection/redaction, audited conversations, safeguarding alerts and human follow-up.

These cases suggest that the strongest evidence is currently for augmentation and task redesign, not autonomous government. Benefits are most credible where AI addresses a clearly bounded bottleneck and where agencies measure operational outcomes—processing time, detection rate, caseload, satisfaction or service uptake—against a pre-AI baseline. (LGA, 2026a).

Risks and the governance conditions for an attractive AI city

The same move from chat to action increases risk because an incorrect answer becomes more consequential when AI can prioritize cases, access records or initiate workflow steps. Bias and opacity are demonstrated risks, not theoretical ones. Rotterdam's audit found that its welfare-fraud risk algorithm could use variables such as low literacy as proxies correlated with ethnicity and suffered from inadequate transparency and governance; the municipality stopped using the system and later concluded that it could not adequately exclude discrimination risks in a redesigned model. (Rotterdam Court of Audit, 2024; Municipality of Rotterdam, 2024). Surveillance and erroneous identification can generate direct harm: Robert Williams' wrongful arrest in Detroit followed police reliance on an incorrect facial-recognition lead; the 2024 settlement subsequently imposed stronger restrictions, disclosure requirements and training. (ACLU of Michigan, 2024).

Data leakage is equally concrete: Australia's NSW Reconstruction Authority confirmed in 2026 that information concerning 2,031 people, including sensitive personal data, had been uploaded to ChatGPT, leading to revised privacy, training and security controls. (NSW Reconstruction Authority, 2026).

The mitigation model is therefore a governance stack, not simply an ethics statement. NIST's AI RMF requires continuous govern–map–measure–manage processes; the EU AI Act requires appropriate data governance, transparency, logging and effective human oversight for high-risk systems and requires fundamental-rights impact assessment for specified high-risk deployments by public authorities. (NIST, 2023; European Union, 2024).

City-level practice is converging in the same direction: Amsterdam publishes algorithm information and procurement conditions, while Barcelona's municipal protocol connects AI risk classification to procurement, lifecycle assurance, transparency and impact assessment. (Municipality of Amsterdam, 2026; Barcelona City Council, 2023).

For an agentic city, this means: authoritative, quality-controlled data; least-privilege access; DPIA/fundamental-rights assessment; public algorithm registers; logged actions; named service, technical and data owners; mandatory human review for high-impact decisions; override/stop mechanisms; appeal routes; cybersecurity testing; and independent post-deployment evaluation. These controls correspond closely to the LGA's 2026 recommendation that agents receive defined "job descriptions," permissions, accountable managers, monitoring and the ability for humans to stop or reverse actions. (LGA, 2026a).

Indicators for measuring the agentic AI city

Future city rankings should therefore measure outcomes and assurance rather than pilot counts. A compact measurement framework is:

Indicator	How to measure
AI service maturity	Share of priority services at stages: informational chat → role assistant → workflow-integrated → transactional/orchestrated → proactive; report the percentage that have progressed beyond pilots with independently verified benefits. The staging mirrors emerging local-government models such as OSCAR. (LGA, 2026b).
Algorithmic transparency	% of public-impact AI systems in a public register; % with published purpose, data sources, responsible owner, limitations, impact assessment and appeal route. The UK ATRS provides an operational template. (UK Government, 2025).
Staff productivity	Pre/post median handling time, cases per FTE, administrative hours per case, backlog and rework/error rates; validate self-reported time savings using system logs or time-and-motion studies.
Citizen satisfaction	Task-completion rate, first-contact resolution, waiting time, CSAT, complaint rate and satisfaction gaps by age, disability, language and socioeconomic group. OECD evidence makes speed/ease particularly important. (OECD, 2025b).
Human-review safeguards	% of high-impact outputs reviewed before action; override rate; escalation time; appeal/reversal rate; incidents where stop/rollback procedures were tested and effective.
Documented service improvement	Function-specific before/after outcomes—permit days, inspection hit rates, maintenance defects found, emergency-response quality, cost per case, access rates and equity gaps—with an explicit baseline and, where feasible, control/comparison groups.

Policy recommendations

Cities should move from an “AI portfolio” mindset to an “AI operating-model” mindset: prioritize a small number of high-friction workflows; specify the role AI is permitted to perform; establish baseline service metrics before procurement; connect agents only to authoritative data under least-privilege permissions; and require a human owner for every consequential workflow. Scaling should depend on demonstrated improvements in timeliness, quality, equity and user experience—not on technical novelty. (LGA, 2026a; NIST, 2023).

Most importantly, cities should treat human oversight and transparency as components of performance, not constraints on it. OECD evidence links service speed, ease, fairness, legitimate data use and administrative satisfaction to institutional trust. Accordingly, a city that automates rapidly but cannot explain its systems, correct errors or provide a human route of appeal may become administratively faster while becoming institutionally less attractive. The stronger model is “human + agent”: AI performs bounded retrieval, synthesis, detection, routing and administrative action; public employees retain judgment, responsibility and the power to override it. (OECD, 2024b, 2025d; LGA, 2026a).

Thus, the statement is justified: the next stage of city AI is not chiefly better conversation; it is role-based, workflow-integrated and increasingly agentic transformation. The cities most likely to capture its attractiveness dividend will be those that combine workflow maturity with strong data, measurable public value, transparency and meaningful human control.

7.3.11 From data as a tool to governed data spaces as AI infrastructure

The leading edge of urban technology policy—particularly in Europe—is moving from departmental datasets, open-data portals and city data platforms used mainly for analytics toward federated, governed data spaces that make heterogeneous public and private data continuously usable by AI, digital twins and automated services. The Data Spaces Support Centre defines a data space as an interoperable framework built on common governance, standards, practices and enabling services for trusted data transactions; crucially, data can remain with its holder rather than being copied into one municipal repository (DSSC, 2026). AI accelerates this shift because an algorithm needs more than "access to data": it needs machine-readable semantics, provenance, quality, lawful-purpose information, identities, permissions, security controls and auditable usage. The EU AI Act now makes appropriate data-governance practices—including provenance, preparation, representativeness, bias and data gaps—an explicit requirement for high-risk AI systems (European Parliament & Council, 2024). The EU Data Act similarly requires data-space participants to describe content, restrictions, quality, vocabularies and APIs sufficiently for automated data exchange (European Parliament & Council, 2023). Implementation evidence is increasingly tangible. By September 2026, the EU's European Data Space for Smart Communities (DS4SSCC) comprised eleven longer-running pilots plus seven new replication pilots spanning ten countries; current projects connect cities including Amsterdam, Helsinki, Porto, Valencia, Rotterdam, Barcelona and Genoa across mobility, climate, pollution and planning applications (DS4SSCC, 2026). Academic evidence points in the same direction: interviews with representatives of 27 European cities identified standard formats, explicit access rules and cross-departmental collaboration as recurring urban data-governance requirements (Bozkurt et al., 2025). Yet maturity remains limited: a 2026 systematic review of 149 data-space studies found only a small share had reached real-world evaluation, so claims about long-term economic or social outcomes should remain cautious (Kovach et al., 2026). Bottom line: urban data is becoming a layer of digital public infrastructure. The strategic unit is no longer simply the dataset or dashboard, but the governed transaction between trusted actors and AI-enabled services.

Why the shift is happening

The earlier smart-city model largely treated data as an input to a specific use case: collect sensor or administrative data, centralize it, analyze it, and create a dashboard or application. OECD reviews already showed the limitation of this model: urban information is heterogeneous and distributed across transport, buildings, utilities, private operators and government departments, while the value of smart-city systems increasingly depends on linking those flows across organizational boundaries (OECD, 2023c).

AI changes the economics and risk profile. Models, agents and digital twins can consume data continuously and combine sources at machine speed, but unreliable meaning, stale records, ambiguous rights or biased training data can be propagated at the same speed. The World Bank therefore describes the next step after open data as "AI-ready" data: discoverable and API-accessible, but also validated, structured, documented by high-quality metadata and governed through institutional partnerships (Fu et al., 2025). OECD reaches a similar conclusion for government AI, identifying data federation, catalogues, APIs, standards, semantics, governance roles and data-sharing arrangements as core AI enablers (OECD, 2025d).

Europe is turning this architecture into policy. The Data Governance Act establishes mechanisms for protected public-sector-data reuse and data intermediaries; the Data Act sets interoperability requirements for common data spaces; and the Interoperable Europe Act explicitly addresses legal, organizational, semantic and technical interoperability of public digital services (European Parliament & Council, 2022a, 2022b, 2023, 2024). This makes the shift more than a technological fashion: it is becoming part of the institutional environment in which European cities procure, share and use data.

Evidence from city and regional implementation

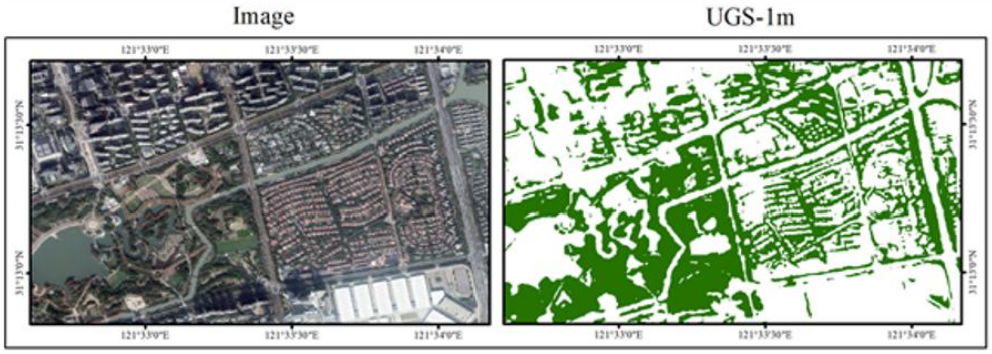
Case	Governance and technical model	Urban use cases	Evidence/outcome	Main lesson
Helsinki + Amsterdam + Porto Traffic Flow Data Space	Cross-city DS4SSCC federation; Helsinki already requires machine-readable/API-accessible city data and operates governance, MyData/consent-management and algorithm-transparency mechanisms.	Roadworks, disruptions, traffic management, air quality.	The shared IDEA technology had achieved **80% of roadwork updates within 10 minutes** in the Dutch pilot and is used by all Dutch road authorities; Helsinki and Porto joined its cross-border replication in 2024–26 (City of Helsinki, 2026; DS4SSCC, 2026).	Internal governance and API discipline make later federation feasible.
Amsterdam AMdEX + Health Data Space Amsterdam	AMdEX acts as a "digital notary," translating sharing conditions into contracts and enforceable rules; HDSA combines hospitals, universities, the city and industry under a governance framework for pseudonymised secondary health-data use.	Health research, stroke pathways, cancer treatment; multi-party AI access.	Three hospitals began pseudonymised reuse; HDSA reviews requests, monitors reuse and checks compliance. AMdEX produced an operational prototype and governance/business models before transfer to AMS-IX for scaling (Amsterdam Economic Board, 2024).	Much of the bottleneck is institutional—permissions, contracts and trust—not storage capacity.
Valencia–Rotterdam NEXCITY / Valencia EDINT	Valencia's municipal Data Office participates in Spain's EDINT urban-infrastructure data space; NEXCITY uses a **MIM-compliant, SIMPL-compatible**, federated catalogue with OGC APIs, OpenAPI and NGSI-LD.	Mobility, air quality, heat stress, noise, spatial planning and digital-twin simulation.	The Aug.–Oct. 2026 pilot integrates **15+ urban dataset types** across seven use cases; results are still emerging, so benefits should not yet be attributed causally to the data space (DS4SSCC, 2026; City of Valencia, 2026).	Mature smart-city platforms are evolving toward portable, cross-city federation rather than another central silo.
Barcelona–Genoa EMOVA	DS4SSCC replication project extending Barcelona's existing data-space infrastructure and testing interoperability with Genoa. Barcelona separately uses privacy inventories and algorithmic-impact governance for municipal AI.	Low-emission zones, environmental policy and port–city freight corridors.	Launched in September 2026; therefore evidence is of **institutional adoption and replication**, not yet measured impact (DS4SSCC, 2026; Barcelona City Council, 2023).	The emerging target is interoperability between cities, not merely interoperability within one municipality.
EONA-X / Paris 2024	Non-profit, Gaia-X-aligned, decentralised data space: metadata are federated while participants retain control of source data and access conditions.	Airport, rail, airline, tourism and event logistics.	EONA-X reports coordinating data around **60,000+ accredited participants** while Paris airports continued handling roughly **330,000 travellers/day** during the Games (EONA-X, 2026).	A governed space can coordinate public/private real-time operations without constructing one giant data lake.

The breadth of applications is already wider than mobility. DS4SSCC pilots cover energy/positive-energy districts, urban heat and climate resilience, extreme-weather/road-safety applications, housing monitoring and local digital twins; Amsterdam's HDSA demonstrates the public-health pattern (DS4SSCC, 2026).

The evidence of technical feasibility and organisational adoption is considerably stronger, however, than evidence of long-term causal outcomes such as lower emissions, better health or economic growth.

Architecture, governance and urban value

A data space should therefore be understood as a governance architecture wrapped around distributed data, not simply a cloud database.



Technically, a credible urban data space requires interoperability at four levels—legal, organisational, semantic and technical—plus common data models, documented APIs and machine-readable catalogues. Metadata should capture ownership/stewardship, meaning, format, quality, uncertainty, provenance/lineage, version/freshness, licences, access conditions and API endpoints; the Data Act explicitly makes several of these dimensions interoperability requirements (DSSC, 2026; European Parliament & Council, 2023). FIWARE/NGSI-LD, DCAT/DCAT-AP, OGC APIs, MIMs Plus and similar standards are therefore more strategically important than any particular proprietary city platform. The trust layer requires authenticated organisations and services, trusted digital identities or credentials, role/attribute-based access, machine-readable usage policies, contractual negotiation, encryption and audit logs. IDSA's reference architecture illustrates the pattern through connectors, identity providers, certificates/attributes, usage-policy enforcement and provenance/clearing mechanisms (IDSA, 2026). “Sovereignty” here means that a data holder can determine and document who may use data and under what conditions; it does not mean technology can guarantee control once every copy leaves the governed environment. Legally, cities need a documented lawful basis, purpose limitation, minimisation, retention and accountability, with DPIAs or equivalent assessments where required. Consent is only one possible legal basis and should not be treated as a universal data-space mechanism: European data-protection guidance warns that public authorities frequently face a power imbalance that can make consent inappropriate (GDPR; EDPB, 2020). For AI, this should be supplemented with data provenance/quality records, bias assessment, human oversight and, for consequential public algorithms, public algorithm registries and impact assessments; Helsinki and Barcelona already provide elements of this governance model (City of Helsinki, 2026; Barcelona City Council, 2023). These capabilities affect trust and innovation as well as compliance. OECD evidence finds that satisfaction with reliable, responsive and fair public services—and legitimate use of personal data—is associated with public trust, while cities' data-management capability and openness to partnerships are foundational components of innovation capacity (OECD, 2020a, 2024b). The connection to talent attraction is plausible but not yet causally established: governed data infrastructure can improve the environment for researchers, startups and advanced public services, while strong digital talent is itself necessary for data governance. It is therefore more defensible to treat talent attractiveness as a downstream ecosystem outcome rather than claim that data spaces directly cause talent inflows (OECD, 2023c).

Indicators, risks and policy priorities

A city dashboard should measure the operating capacity of the data ecosystem, not simply count datasets. Recommended indicators are those shown at next table.

These metrics follow the capabilities embedded in the DSSC, Data Act, IDSA architecture and city practices rather than assuming that publishing more open datasets equals higher AI readiness (DSSC, 2026; IDSA, 2026; World Bank, 2025).

The main barriers are legacy silos and incompatible semantics; weak metadata and data quality; uncertain rights, liability and lawful reuse; cybersecurity and re-identification risks; vendor lock-in; unequal public/private bargaining power; and shortages of data-engineering, privacy, procurement and governance skills. These are consistent with OECD city research and the 27-city empirical study by Bozkurt et al. (2025).

Policy should consequently shift from buying isolated “smart-city platforms” to funding persistent data-governance capacity. Cities should establish a data-space rulebook and governance authority; make standards, APIs, metadata, identity and audit requirements part of procurement; begin with a few high-value cross-sector applications; use open/federated architectures to preserve portability; join regional and European spaces rather than build bespoke ones; and impose an AI-readiness gate requiring provenance, quality, lawful basis, security, access/usage rules and risk/impact documentation before operational AI deployment. The strategic objective is not maximal data sharing, but controlled, interoperable and accountable reuse of the right data for legitimate purposes. This is precisely the transition from data as an analytical asset to governed data spaces as AI infrastructure.

Dimension	Suggested city KPI
Interoperability	% of priority data products conforming to agreed API and semantic standards; cross-organisation exchange success rate
Metadata/data quality	% catalogue records meeting mandatory metadata fields; completeness, freshness, lineage and quality-score coverage
Privacy/security	% sensitive products with documented lawful basis/DPIA where required; encryption/MFA/audit coverage; unresolved incidents
Data-sharing governance	Active agreements, participating organisations/sectors; median onboarding/contracting time; % rules machine-readable
Algorithm accountability	% consequential/high-risk public AI systems in a public register; % with impact, bias and data-quality assessment
Digital identity/trust	% data-space participants authenticated with trusted organisational/digital credentials; credential revocation/update time
Federation and value	Number of regional/sectoral data spaces connected; reusable data products, cross-space transactions and external SME/research reuse

7.3.12 From 4G/5G coverage to resilient, autonomous-vehicle-ready 6G networks

The statement should be interpreted as a shift in urban connectivity requirements and investment priorities rather than a completed technology migration. As of October 2026, commercial cities are not operating standardized 6G networks: ITU's IMT-2030 framework is established, its draft technical-performance requirements were completed in February 2026, candidate radio technologies begin entering the ITU process from 2027, and 3GPP's first normative 6G release is still under development (ITU, 2026; 3GPP, 2026).

What is already changing is the definition of a competitive urban network. 4G was predominantly optimized for mobile broadband; 5G added massive machine communications and ultra-reliable low-latency communication (URLLC). IMT-2030 extends this into six scenarios—immersive communication, hyper-reliable/low-latency communication, massive communication, ubiquitous connectivity, AI-and-communication, and integrated sensing-and-communication—while making security, resilience, inclusion and ubiquitous intelligence explicit design principles (ITU, 2023, 2026).

This matters for autonomous mobility and urban critical services. Existing 3GPP V2X requirements already demand, for example, 3 ms end-to-end latency and 99.999% reliability for emergency trajectory alignment, while remote driving can require 5 ms and 99.999% reliability (ETSI, 2020).

Real-world 5G trials demonstrate both progress and remaining gaps: Singapore Science Park reduced measured mean round-trip latency from 28.41 ms on 4G to 9.61 ms on 5G, while the European 5G-MOBIX trials achieved minimum round-trip delay around 10 ms but still observed service-disruption and handover challenges across networks (IMDA, 2023; European Commission, 2022b).

The evidence therefore supports a stronger formulation: leading cities are moving from measuring connectivity primarily by coverage and speed toward engineering multi-layer, resilient connectivity platforms—using 5G-Advanced today and converging toward IMT-2030/6G—to support vehicles, machines, digital twins and mission-critical services.

Technical evidence for the transition

ITU's IMT-2020 requirements illustrate the starting point: 5G specified 1 ms radio user-plane latency for URLLC, 20 Gbit/s peak downlink rates and one million devices/km² (ITU, 2017). IMT-2030 research targets expand this toward 0.1–1 ms latency, reliability from $1-10^{-5}$ to $1-10^{-7}$, 50–200 Gbit/s peak rates and 10^6–10^8 connected devices/km², while adding sensing, centimeter-scale positioning and native AI capabilities (ITU, 2023). These figures are research/evaluation targets, not guarantees for real urban deployments (ITU, 2023, 2026).

Spectrum also becomes heterogeneous rather than simply "higher frequency." IMT-2030 envisages bands from below 1 GHz to above 100 GHz, using low frequencies for coverage/resilience and higher bands for extreme capacity; ITU has separately concluded that operation above 100 GHz is technically feasible for future IMT under suitable conditions (ITU, 2023, 2024).

At architecture level, the trend is toward an AI-native, cloud-edge-compute fabric. Ericsson describes 6G as an AI-native fabric combining connectivity, cloud and compute, while Nokia proposes pervasive AI, cloud RAN, a cloud-native core and NTN support from the outset (Ericsson, 2026; Nokia, 2025). Peer-reviewed research similarly treats distributed edge intelligence as integral to 6G rather than merely an application layered over the network (Li et al., 2025)

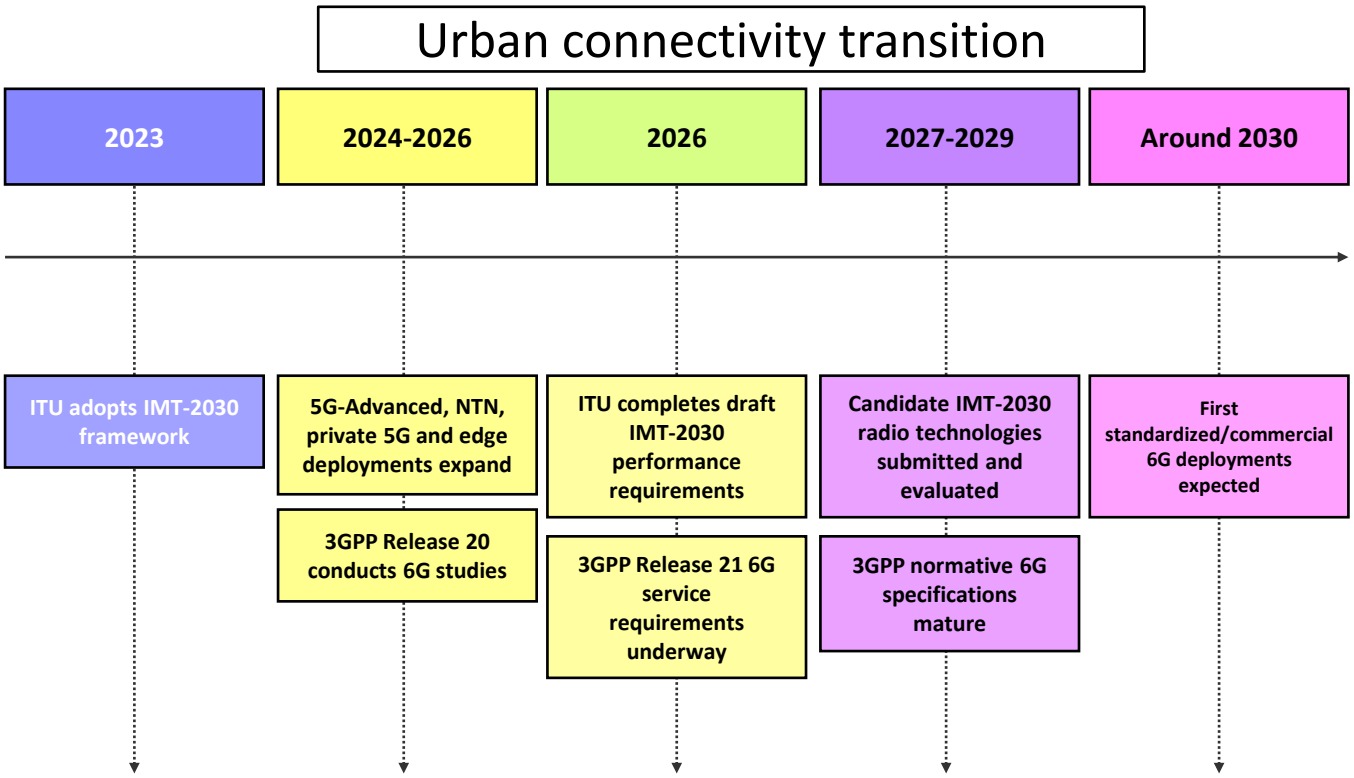
Attribute	4G/5G baseline	IMT-2030 / 6G direction
Latency/reliability	4G-era latency roughly an order above 5G; 5G URLLC minimum radio latency **1 ms** (ITU, 2017)	**0.1–1 ms** research target; reliability toward **$1-10^{-7}$** (ITU, 2023)
Connected devices	5G: **10^6 devices/km²** (ITU, 2017)	Up to **10^8 devices/km²** investigated (ITU, 2023)
Spectrum	4G/5G progressively added wider mid/mmWave bands	Complementary spectrum from **sub-1 GHz to >100 GHz** (ITU, 2023)
Network intelligence	Cloud-native 5G, analytics, slicing and edge computing	**AI-native** control/optimization plus integrated communication, computing and sensing (ITU, 2023; Li et al., 2025)
Mobility	V2X, sidelink and MEC already supported by 5G	HRLLC + AI + ISAC + NTN designed as complementary 6G-V2X enablers (Rodríguez-Piñeiro et al., 2025)
Resilience	Private 5G, ProSe/direct communication and Release-17 NTN increasingly available	Security/resilience and ubiquitous connectivity become explicit IMT-2030 principles (ITU, 2026)

Autonomous mobility, resilience and urban digital twins

Autonomous vehicles illustrate why coverage alone is an inadequate metric. Cooperative perception requires vehicles and infrastructure to exchange sensor information despite obstruction, mobility, congestion, handovers and packet loss; recent research identifies URLLC, NTN, AI and integrated sensing-and-communication as core 6G-V2X enablers (Rodríguez-Piñeiro et al., 2025; Huang et al., 2025). The implication is that cities need not merely "5G coverage," but predictable P99/P99.9 latency, route-level service continuity, edge-processing availability and redundant communication paths.

Resilience is already being assembled through technologies that prefigure 6G. 3GPP Release 17 standardized non-terrestrial-network support, 5G Proximity Services enable direct/sidelink communication, standalone non-public networks support private infrastructure, and mission-critical specifications include isolated-operation modes for public safety (3GPP, 2022–2026). Thus terrestrial macro networks can increasingly be complemented by private networks, device-to-device links and satellites rather than functioning as a single point of failure.

Dense urban IoT and digital twins reinforce this requirement. IMT-2030 explicitly identifies digital twins and virtual worlds as application trends and raises potential connection density by up to two orders of magnitude over the 5G benchmark (ITU, 2023). Research on native 6G digital-twin networks argues that distributed twins can support network automation, prediction and pre-validation, illustrating how connectivity is evolving from data transport toward continuous physical-digital synchronization (Liu et al., 2025).



The timeline reflects ITU and 3GPP processes rather than a guaranteed commercial deployment schedule (ITU, 2026; 3GPP, 2026).

Cybersecurity, governance and equity

More intelligence and virtualization also mean a larger attack surface. ITU is already studying dedicated technical security controls for IMT-2030 because AI-native, cloud/edge-native, sliced and multi-domain architectures introduce new trust boundaries (ITU-T, 2026). City readiness should therefore encompass identity and device assurance, software/supply-chain risk, segmentation, encryption, continuous monitoring, recovery testing and governance—not simply operator coverage. NIST CSF 2.0's Govern, Identify, Protect, Detect, Respond and Recover structure provides a practical municipal assessment framework while dedicated 6G controls mature (NIST, 2024).

Equity is equally central. ITU estimates that 2.2 billion people remained offline in 2025; 5G covered 55% of the global population but 84% in high-income countries versus only 4% in low-income countries. Affordability remains problematic in many economies (ITU, 2025). Even affluent cities can reproduce this divide internally if high-performance infrastructure concentrates around business districts and mobility corridors. A genuinely attractive “6G-ready” city therefore requires affordability and neighborhood-level service quality alongside technological sophistication.

Indicators and policy implications for city planners

Cities should consequently move beyond a headline “percentage of population covered by 5G/6G” indicator. A practical 6G-readiness scorecard should measure: network availability and outage minutes; P95/P99/P99.9 end-to-end latency and packet reliability; terrestrial/private/NTN path diversity and tested failover time; kilometers of priority roads with V2X, edge and roadside-unit capability; authenticated IoT devices/km² and digital-twin update latency; cybersecurity maturity, incident-detection and recovery times; coverage and affordability by neighborhood/income group; and explicit alignment with IMT-2030 capabilities and usage scenarios. These metrics better reflect ITU's shift toward HRLLC, massive communication, ubiquitous connectivity, AI-and-communication, ISAC, security and resilience (ITU, 2026).

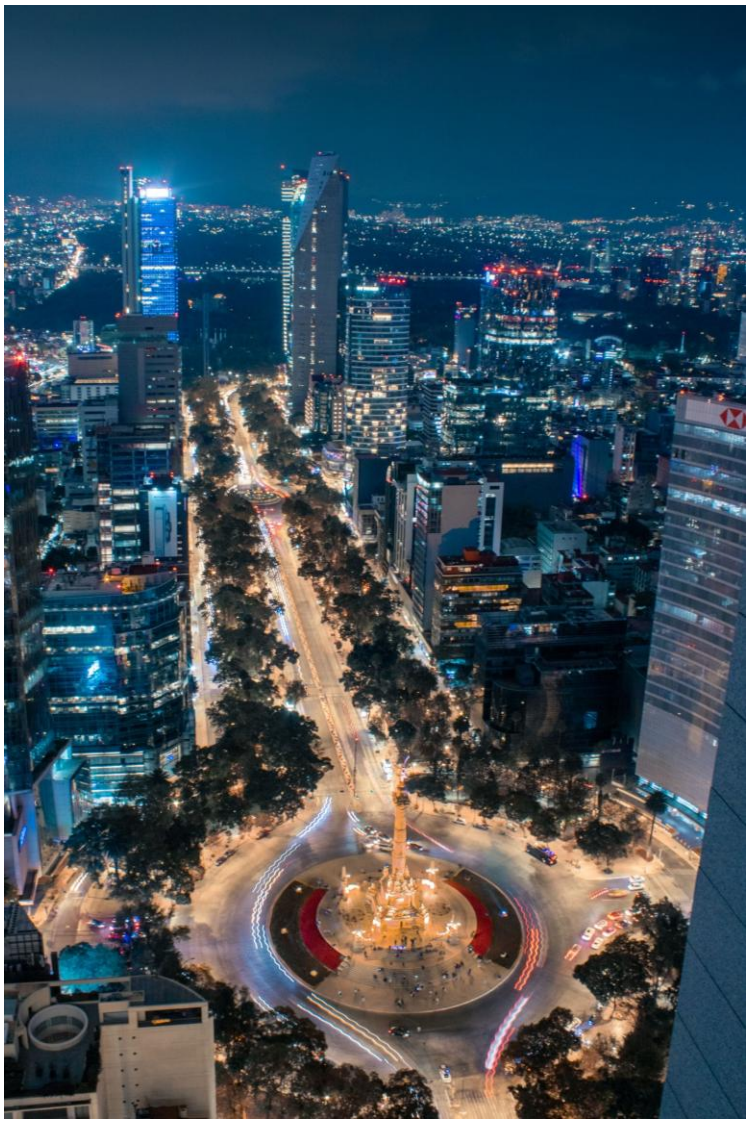
For implementation, planners should avoid waiting for a “6G switch.” Investments made now in fiber backhaul, dense edge computing, open APIs, 5G standalone/5G-Advanced, private networks, NTN interoperability, V2X corridors, redundant power, secure IoT identity and spectrum/site planning are largely enabling layers for eventual IMT-2030. Real-world evidence supports this evolutionary path: Singapore's 5G AV trial demonstrated materially lower latency than 4G but exposed cloud-processing and handover constraints, while 5G-MOBIX used 29 gNBs, 24 edge nodes and 22 roadside units across connected-mobility trials, demonstrating that mobility readiness is a system architecture problem, not a coverage-map problem (IMDA, 2023; European Commission, 2022).

Overall judgment: the proposed statement is justified when “shifting to 6G” means a transition in the design objective—from consumer broadband coverage toward resilient, intelligent, secure, machine-scale and mobility-critical infrastructure. Claims that cities are already replacing 5G with operational 6G, however, would be premature: standards, spectrum arrangements, security controls and commercial implementations remain under development through the late 2020s.

7.4 Cities of Future. What might they look like?

Transforming City Magnetism may take 15 years or more. This slow but constant evolution should not discourage us from making the transformation. Before beginning the development of a strategy to transform the City Identity / Magnetism, we must recognize our existing advantages, assets, values, identity, heritage, and culture and use them to build upon, to lean on them to begin to thrive. We should think of our city as a house that we want to sell, or rather, that we want to rent to talented citizens. We have to include in that house the most appreciated elements so that talent can live, achieve maximum well-being and develop their full potential, and all this with a reasonable income or cost of living (citizenship contract). Magnetism is the house itself; Profitability is the services available in that house combined with its rent price. Let's pay attention to those lower-Magnetism secondary cities in countries that already have a widely recognized and strong capital city. They can transform themselves and stand out globally if the right political decisions are made and their citizens contribute. They don't compete with their capitals on Magnetism, but their lower cost of living make them more attractive.

The transformational plan must be the long-term, consensual result of an all-parties debate. A combination of the three fundamental axes is also a must: Urbanism, Humanism and Technology, with Humanism leading and the others supporting and complementing.



And finally, we have the technological side, from investment in innovation to the focus on human capital and the proposal of an ambitious SmartCities plan. The SmartCities Plan fulfills the mission of improving citizen services (Profitability), while also helping in strategy, reputation, and innovation (Magnetism) making it the most powerful tool we have to improve Attractiveness. As we have mentioned, little can be done about fixed issues like geolocation, and changes in Identity are slow and always mid- to long-term projects, and improving economic conditions and net purchasing power is difficult to do quickly. Therefore, the obvious lever, with the most short-term results (even in a 4-year legislature), is to invest heavily in a solid SmartCities plan. Cities that fail in this aspect have either fallen asleep in the glory of leadership (and are now waking up, like the Swiss) or are losing ground by not taking advantage of their excellent magnetism to climb in the ranking (like in Southern Europe). On the contrary, cities with handicaps in Magnetism—either due to lack of history (US), weather conditions (Nordics, Emirates) or long distances (AUS)—compensate those shortcomings with SmartCities plans that improve their attractiveness, or event thinking about future MetaCities…

A New Model for SmartCommunities

- Human-centered: **Citizen-centric** with welfare and quality of life as the major goal. LOVABLE.
- Sense of **community** (ideally a beehive) with all citizens cooperating around a collective task or project, with a strong sense of unity, belonging and identity. Multiplicity as the new city social paradigm, where the total sum of ideas, opinions, and preferences set the city's evolution.
- City as a **social enabler**: relationships facilitator, inclusive, social diversity, liveable, leisure-fostering and shared activities. Age-friendly.
- **Citizens as co-creators**: permanent engagement, proud to contribute. City as an expression of collective experience. SmartArt as a combination of technology and creativity.
- **Self-everything**: sufficient in water, energy, matter, people-talent, funding, resiliency...
- **Zero-everything**: car fatalities (zero vision), pollution, carbon, violence, unrecycled waste, unmanaged water, non-renewable energies, crime, inequality, poverty.
- **Sustainability**: social, economic, and eventually environmentally: Carbon negative, Circular.
- **Resilient** against the increasingly frequent natural and human-provocked hazards, paying special attention not only to infrastructure but to impact on people: social resiliency.
- Megalopolis is broken, walking-distance suburbs/districts, making them next to one another. PostCar City. Superblocks. More spaces for humans, soft heights gradient, boulevards as an urbanism principle, walkable city, bike-friendly. Curb Management. 3 Distances **(90'-15'-1') City**
- **Smart-DataSphere**: AI-driven Digital Twin models monitoring the physical city, simulating potential improvement alternatives, but always understanding living humans and adding Social models. A respectful and ethical technological city, conscious and persuasive city by tracking citizens' psychologies.
- **Agile, Dynamic and Versatile**: Always creating projects, experimenting, listening to citizens, applying feedback, adapting to new circumstances and needs, developing new solutions and starting over again and again. Creativity always as the leading motion.

  "Create opportunities, solve problems, innovate. All three are inseparable." Jane Jacobs (1961)
- Open, Respectful, Ethical, based on a **strong identity and values**.

To conclude, we would like to close by sharing our dream of a new cultural revival brought about by an increasing appreciation for human artwork and the essential principles of human creativity: beauty, goodness, truth. Human destiny has long been about labor, but our human future points increasingly toward a creative value mission. To achieve this dream, we will need to unlock the full capacity of our creative mind. It is not just a matter of technology or investment. Identity, urban planning and social sustainability are and will remain determining factors, with Technology as the essential and indispensable enabler and catalyst.

References

ACLU of Michigan. (2024). Civil rights advocates achieve the nation's strongest police department policy on facial recognition technology.

ALCALDE, I. (2017) «Ciudades con Alma en la Era Digital». CITIZEN http://thecitizen.es/cultura/ciudades-con-alma-en-la-era-digital retrieved by June 2025

Amsterdam Economic Board. (2024). Health Data Space Amsterdam: Amsterdam hospitals start sharing data. https://amsterdameconomicboard.com/nieuws/amsterdamse-ziekenhuizen-gaan-data-delen/

Anguelovski, I., et al. (2021). Green gentrification and pathways of displacement across international cities. Comparative urban evidence documents financial insecurity, cultural displacement, service loss and associated social effects. https://doi.org/10.1016/j.healthplace.2021.102698

Arlet, J. (2017). Electricity tariffs, power outages and firm performance: A comparative analysis. World Bank.

Arnstein, S. R. (1969). A ladder of citizen participation. Journal of the American Institute of Planners, 35(4), 216–224.

Arntz, M., vom Baur, C., & Brüll, E. (2023). Do preferences for urban amenities differ by skill? Journal of Economic Geography, 23(3), 541–576. doi:10.1093/jeg/lbac025.

Ayuntamiento de Madrid. (2026). Paloma 2.0: Prevention and detection of unwanted loneliness using artificial intelligence.

Banti, C. (2025). Are institutional investors the culprit of rising global house prices? Real Estate Economics, 53(2), 210–265.

Barcelona City Council. (2023). Methodologies and protocols for the implementation of algorithmic systems.

Barcelona City Council. (2025). Municipal renewable-energy generation and shared self-consumption programs. Barcelona Energia.

Barron, K., Kung, E., & Proserpio, D. (2021). The effect of home-sharing on house prices and rents: Evidence from Airbnb. Marketing Science, 40(1), 23–47.

BERRONE, P. & RICART, J.E. (2020) «IESE. Cities in Motion Index 2020». IESE https://media.iese.edu/research/pdfs/ST-0542-E.pdf retrieved by March 2025

BETHUNE, S. (2022). Stress in America 2022. American Psychological Association. https://www.apa.org/news/press/releases/stress/2022/concerned-future-inflation retrieved by Feb 2025.

Bick, A., Blandin, A., Mertens, K., & Rubinton, H. (2024). Work from home and migration (CEPR Discussion Paper No. 19101). Centre for Economic Policy Research.

Bick, A., Blandin, A., Mertens, K., & Rubinton, H. (2026). Research on work from home, residential mobility and city choice. Federal Reserve research paper.

Bloom, N., Han, R., & Liang, J. (2024). Hybrid working from home improves retention without damaging performance. Nature, 630, 920–925. doi:10.1038/s41586-024-07500-2.

BLOOMBERG (2023), Japan: Where Innovation Is Borderless. BLOOMBERG. Bloomberg's 2022 Global FDI study. https://sponsored.bloomberg.com/article/jco/japan-where-innovation-is-borderless , retrieved by July 2025

Bovaird, T. (2007). Beyond engagement and participation: User and community coproduction of public services. Public Administration Review, 67(5), 846–860.

Bozkurt, Y., Rossmann, A., Pervez, Z., & Ramzan, N. (2025). Assessing data governance models for smart cities: Benchmarking data governance models on the basis of European urban requirements. Sustainable Cities and Society, 130, 106528. https://doi.org/10.1016/j.scs.2025.106528

Brueckner, J. K., Kahn, M. E., & Lin, G. C. (2023). A new spatial hedonic equilibrium in the emerging work-from-home economy? American Economic Journal: Applied Economics, 15(2), 285–319. doi:10.1257/app.20210190.

CASSIM et al (2020) The $10 trillion rescue: How governments can deliver impact. McKinsey pg. 12-13 Also at www.mckinsey.com/~/media/McKinsey/Industries/Public%20Sector/Our%20Insights/The%2010%20trillion%20dollar%20rescue%20How%20governments%20can%20deliver%20impact/The-10-trillion-dollar-rescue-How-governments-can-deliver-impact-vF.pdf retrieved by May 2025

CBRE. (2025). North America data center trends H1 2025. CBRE Research.

CENTER FOR AMERICAN PROGRESS. (2025). The Trump Administration's Cancellation of Funding for Environmental Protections…https://www.americanprogress.org/wp-content/uploads/sites/2/2025/04/CAP-CancelEJprotections-3.pdf retrieved by Aug 2025

CDC-Centers for Disease Control and Prevention. (2025, May 14). U.S. overdose deaths decrease almost 27% in 2024. National Center for Health Statistics.

CDC-Centers for Disease Control and Prevention. (2026, May 13). U.S. overdose deaths decrease for third consecutive year in 2025. National Center for Health Statistics.

Chan, A., Bradford, B., & Stott, C. (2025). A systematic review and meta-analysis of procedural justice and legitimacy in policing: The effect of social identity and social contexts. Journal of Experimental Criminology, 21, 349–406. doi:10.1007/s11292-023-09595-5.

Choudhury, P., Starr, E., & Teodorovicz, T. (2022, September 15). Work-from-anywhere as a public policy: 3 findings from the Tulsa Remote program. Brookings Institution. https://www.brookings.edu/articles/work-from-anywhere-as-a-public-policy-three-findings-from-the-tulsa-remote-program/

City of Cape Town. (2026a). Cape Town seals first agreements to buy power at below Eskom rates.

City of Cape Town. (2026b). City commits more than R1.2 billion on energy security and diversification.

City of Chicago. (2015). Food inspection forecasting: Optimizing inspections with analytics.

City of Copenhagen. (2025). Energy strategy [Energistrategi].

City of Helsinki. (2026). The City of Helsinki Data Strategy. https://digi.hel.fi/english/helsinki-city-data-strategy/

City of New Orleans. (2024). City of New Orleans highlights impact of Community Lighthouses after Hurricane Francine.

CITY OF SAINT PAUL, MINNESSOTA vs WRIGHT (2026) No. 25-cv-03899 (APM), 2026 WL 88193 (D.D.C. Jan. 12, 2026).

Council on Criminal Justice. (2026). Crime trends in U.S. cities: Year-end 2025 update.

Couture, V., & Handbury, J. (2023). Urban revival in America. Journal of Economic Perspectives.

DSSC-Data Spaces Support Centre. (2026). DSSC Blueprint 3.0. https://blueprint.dssc.eu/

DELCKER, J (2022). How Germany plans to catch up in tech. DW. https://www.dw.com/en/how-digital-laggard-germany-plans-to-catch-up-in-tech/a-62985987 retrieved by Aug 2025

DIAMANDIS, P and KOTLER, S. (2020) The future is faster than you think. Simon & Schuster. NewYork

Diamond, R., & Moretti, E. (2021, rev. 2026). Where is standard of living the highest? Local prices and the geography of consumption (NBER Working Paper No. 29533).

Diamond, R., McQuade, T., & Qian, F. (2019). The effects of rent control expansion on tenants, landlords, and inequality: Evidence from San Francisco. American Economic Review.

Doren, C. (2022, June 30). New census estimates show why some cities lost population in 2021. U.S. Census Bureau. https://www.census.gov/library/stories/2022/06/fewer-younger-adults-drives-population-loss-in-some-us-cities.html

DS4SSCC (2026). European Data Space for Smart Communities: Pilots and fourth deployment round. https://www.ds4sscc.eu/

Eliasson, K., & Westerlund, O. (2024). Housing markets and geographical labour mobility to high-productivity regions: The case of Stockholm. European Urban and Regional Studies.

Elmqvist, T., Andersson, E., Frantzeskaki, N., McPhearson, T., Olsson, P., Gaffney, O., Takeuchi, K., & Folke, C. (2019). Sustainability and resilience for transformation in the urban century. Nature Sustainability, 2, 267–273. https://doi.org/10.1038/s41893-019-0250-1.

EONA-X. (2026). Coordinating Paris 2024 without disrupting everyday travel. https://eona-x.eu/cas-etude/jop2024/

Erickson, M., & Spell, L. (2026, May 14). Population gains in metro areas driven largely by growth in the exurbs this decade—with some exceptions. U.S. Census Bureau. https://www.census.gov/library/stories/2026/05/major-city-outer-edge-growth.html

Ericsson. (2026). 6G—Connectivity and beyond for the 2030s. https://www.ericsson.com/en/reports-and-papers/white-papers/6g-connectivity-and-beyond-for-the-2030s

European Commission, & High Representative of the Union for Foreign Affairs and Security Policy. (2025). Joint communication on the European Preparedness Union Strategy (JOIN(2025) 130 final). European Commission. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52025JC0130

European Commission, Directorate-General for Regional and Urban Policy. (2023). Report on the quality of life in European cities, 2023. doi:10.2776/830208.

European Commission. (2014). European Energy Security Strategy (COM/2014/0330 final).

European Commission. (2021). New European Bauhaus: Beautiful, sustainable, together. European Commission.

European Commission. (2022b). 5G for cooperative & connected automated mobility on cross-border corridors: 5G-MOBIX periodic reporting. CORDIS. https://cordis.europa.eu/project/id/825496/reporting

European Commission. (2022a). REPowerEU plan.

European Commission. (2025). Energy communities. Directorate-General for Energy.

European Commission. (2026). Energy poverty. Directorate-General for Energy.

European Parliament & Council of the European Union. (2022a). Directive (EU) 2022/2555 on measures for a high common level of cybersecurity across the Union (NIS 2 Directive). Official Journal of the European Union. https://eur-lex.europa.eu/eli/dir/2022/2555

European Parliament & Council of the European Union. (2022b). Directive (EU) 2022/2557 on the resilience of critical entities. Official Journal of the European Union. https://eur-lex.europa.eu/eli/dir/2022/2557

European Parliament & Council. (2023). Regulation (EU) 2023/2854 on harmonised rules on fair access to and use of data (Data Act). https://eur-lex.europa.eu/eli/reg/2023/2854

European Parliament & Council. (2024). Regulation (EU) 2024/1689 laying down harmonised rules on artificial intelligence. https://eur-lex.europa.eu/eli/reg/2024/1689

ETSI-European Telecommunications Standards Institute. (2020). ETSI TS 122 186 V16.2.0: 5G; Service requirements for enhanced V2X scenarios (3GPP TS 22.186 Release 16). https://www.etsi.org/deliver/etsi_ts/122100_122199/122186/16.02.00_60/ts_122186v160200p.pdf

EASA-European Union Aviation Safety Agency. (2021). Study on the societal acceptance of urban air mobility in Europe. EASA.

European Union. (2024). Regulation (EU) 2024/1689 laying down harmonised rules on artificial intelligence, consolidated version.

Europol. (2024). Internet organised crime threat assessment (IOCTA) 2024. Publications Office of the European Union. doi:10.2813/442713.

Eurostat. (2025). Housing in Europe—2025 edition. Publications Office of the European Union. doi:10.2785/1681390.

Federal Aviation Administration. (2023). Advanced air mobility implementation plan: Near-term (Innovate28) focus with an eye on the future of AAM (Version 1.0). U.S. Department of Transportation.

Federal Bureau of Investigation. (2026, August 14). FBI releases 2025 reported crimes in the nation statistics.

FLORIDA, R. (2007) The Flight of the Creative Class. Collings. New York, 2007 p.37

Fu, H., Solatorio, A., Dupriez, O., & Hammer, C. (2025). From open data to AI-ready data: Building the foundations for responsible AI in development. World Bank. https://blogs.worldbank.org/en/opendata/from-open-data-to-ai-ready-data--building-the-foundations-for-re

Ganong, P., & Shoag, D. (2017). Why has regional income convergence in the U.S. declined? Journal of Urban Economics, 102, 76–90.

Garcia-López, M.-À., Jofre-Monseny, J., Martínez-Mazza, R., & Segú, M. (2020). Do short-term rental platforms affect housing markets? Evidence from Airbnb in Barcelona. Journal of Urban Economics, 119, 103278.

Gartner. (2025, August 26). Gartner predicts 40% of enterprise apps will feature task-specific AI agents by 2026, up from less than 5% in 2025. https://www.gartner.com/en/newsroom/press-releases/2025-08-26-gartner-predicts-40-percent-of-enterprise-apps-will-feature-task-specific-ai-agents-by-2026-up-from-less-than-5-percent-in-2025

Gartner. (2025, July 15). Gartner forecasts worldwide IT spending to grow 7.9% in 2025. https://www.gartner.com/en/newsroom/press-releases/2025-07-15-gartner-forecasts-worldwide-it-spending-to-grow-7-point-9-percent-in-2025

Gill, C., Weisburd, D., Telep, C. W., Vitter, Z., & Bennett, T. (2014). Community-oriented policing to reduce crime, disorder and fear and increase satisfaction and legitimacy among citizens: A systematic review. Journal of Experimental Criminology, 10(4), 399–428. doi:10.1007/s11292-014-9210-y.

Golding, G., Kumar, A., & Mertens, K. (2021). Cost of Texas' 2021 deep freeze justifies weatherization. Federal Reserve Bank of Dallas.

Gonçalves, S. (2014). The effects of participatory budgeting on municipal expenditures and infant mortality in Brazil. World Development, 53, 94–110.

Government of the City of Buenos Aires. (2025). Boti celebrates six years and renews itself with artificial intelligence.

Grand View Research. (2026). UAE ESG investing market size & outlook, 2026–2033.

Greater London Authority. (2025). London-wide Ultra Low Emission Zone: One year report. London City Hall.

Gu, H., Hu, H., Shen, J., Zhang, Y., & Shen, T. (2026). Global patterns of student mobility align with national climate adaptation. Communications Sustainability, 1, Article 75. https://doi.org/10.1038/s44458-026-00061-7.

Hallegatte, S., Rentschler, J., & Rozenberg, J. (2019). Lifelines: The resilient infrastructure opportunity. World Bank.

HAQQI, T. (2021) «20 Fastest Growing Tech Cities in the World». Yahoo Insider Monkey. https://www.yahoo.com/now/20-fastest-growing-tech-cities-124147373.html retrieved by May 2025

Hepburn, P., et al. (2024). Research on eviction and neighborhood gentrification across 72 US metropolitan areas. Social Forces.

Hess, J. J., et al. (2018). Building resilience to climate change: Pilot evaluation of the impact of India's first heat action plan on all-cause mortality. Journal of Environmental and Public Health, 2018, 7973519. https://doi.org/10.1155/2018/7973519.

Hinkle, J. C., Weisburd, D., Telep, C. W., & Petersen, K. (2020). Problem-oriented policing for reducing crime and disorder: An updated systematic review and meta-analysis. Campbell Systematic Reviews, 16(2), e1089. doi:10.1002/cl2.1089.

Hsieh, C.-T., & Moretti, E. (2019). Housing constraints and spatial misallocation. American Economic Journal: Macroeconomics, 11(2), 1–39.

Huang, T., Liu, J., Zhou, X., Nguyen, D. C., Rahimi Azghadi, M., Xia, Y., Han, Q.-L., & Sun, S. (2025). Vehicle-to-everything cooperative perception for autonomous driving. Proceedings of the IEEE, 113(5), 443–477. https://doi.org/10.1109/JPROC.2025.3600903

Huang, Y. (2026). Talent migration across China's urban hierarchy: Spatial pattern and the effect of housing pressure. Population, Space and Place.

Ibrahim, I. A., Baack, F. R., Aukes, E. J., Sanderink, L., Coenen, F. H. J. M., Helfrich, F. L., Votsis, A., & Hoppe, T. (2025). Local energy autarky: What it means and why it matters. Energy Research & Social Science, Article 103920.

IDSA, International Data Spaces Association. (2026). IDS Reference Architecture Model 4. https://kb.internationaldataspaces.org/

Inflation Reduction Act Tracker. (2026). City of Saint Paul v. Wright. https://iratracker.org/litigation/city-of-saint-paul-v-wright/ retrieved by Jul 2026

IPCC-Intergovernmental Panel on Climate Change. (2022a). Climate change 2022: Impacts, adaptation and vulnerability. Cambridge University Press.

IPCC-Intergovernmental Panel on Climate Change. (2022b). Climate change 2022: Mitigation of climate change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press.

International Energy Agency. (2021). Electricity security 2021. IEA.

International Energy Agency. (2025). Energy and AI. IEA.

International Energy Agency. (2025). Global EV outlook 2025. IEA.

International Energy Agency. (2026). Electricity 2026: Analysis and forecast to 2030.

International Energy Agency. (2026). Key questions on energy and AI.

International Monetary Fund. (2025). World economic outlook, October 2025: Global economy in flux, prospects remain dim.

International Monetary Fund. (2026). The impact of house prices on internal migration: Case of Spain (IMF Working Paper No. 2026/065).

International Telecommunication Union. (2017). Report ITU-R M.2410-0: Minimum requirements related to technical performance for IMT-2020 radio interface(s). https://www.itu.int/pub/R-REP-M.2410-2017

International Telecommunication Union. (2023). Recommendation ITU-R M.2160-0: Framework and overall objectives of the future development of IMT for 2030 and beyond. https://www.itu.int/rec/R-REC-M.2160-0-202311-I/en

International Telecommunication Union. (2024). Report ITU-R M.2541-0: Technical feasibility of IMT in bands above 100 GHz. https://www.itu.int/pub/R-REP-M.2541-2024

International Telecommunication Union. (2025). Measuring digital development: Facts and Figures 2025. https://www.itu.int/hub/publication/D-IND-ICT_MDD-2025-3/

International Telecommunication Union. (2026). IMT-2030: Technical requirements for the 6G future. https://www.itu.int/hub/2026/03/imt-2030-technical-requirements-for-the-6g-future/

International Transport Forum. (2021). Reversing car dependency: Summary and conclusions. OECD Publishing. doi:10.1787/bebe3b6e-en

International Transport Forum. (2024a). Urban logistics hubs: Summary and conclusions (ITF Roundtable Reports No. 195). OECD Publishing. doi:10.1787/da4dee9f-en

INTERPOL & United Nations Interregional Crime and Justice Research Institute. (2024). Toolkit for responsible AI innovation in law enforcement. INTERPOL & UNICRI.

IPCC. (2022c). Cities, settlements and key infrastructure. In Climate Change 2022: Impacts, Adaptation and Vulnerability. IPCC AR6 WGII, Chapter 6.

IPCC. (2022d). Climate Change 2022: Mitigation of Climate Change—Chapter 8: Urban systems and other settlements. Cambridge University Press.

IPCC. (2023). Climate Change 2023: Synthesis Report. Intergovernmental Panel on Climate Change.

JACOBS, J. (1961) The Deadth and Life of Great American Cities. Capitan Swing Libros. Spanish Edition. 2011

KOOLHAAS, R. (1997) Acerca de la ciudad, GG, Barcelona, 2014 from The Generic City Domus, núm. 791, Milano, pp. 8-12

Kovach, A., Montalvillo, L., Lanza, J., Sotres, P., & Urbieta, A. (2026). Understanding data spaces: A systematic mapping study of foundations, technical building blocks, and sectoral adoption. Computer Science Review, 59, 100819. https://doi.org/10.1016/j.cosrev.2025.100819

KPMG. (2025). Middle East CEO Outlook 2025: UAE.

KULASOORIYA, D. & WEE, M. (2021) "From livable to lovable: making cities more human". Deloitte insights. Available at: https://www2.deloitte.com/us/en/insights/industry/public-sector/elements-of-lovable-cities.html retrieved by July 2025.

Kyiv City Council. (2026, June 16). Implementation of Kyiv's resilience plan and distributed cogeneration at critical infrastructure.

Ledesma Bohorquez, N. (2023). Building systemic climate resilience in cities. OECD Regional Development Papers. https://doi.org/10.1787/f2f020b9-en.

Li, B., Liu, T., Wang, W., Zhao, C., & Wang, S. (2025). Agent-as-a-Service: An AI-native edge computing framework for 6G networks. IEEE Network, 39(2), 44–51. https://doi.org/10.1109/MNET.2024.3520987

Li, W., & Su, Y. (2026). Research on the "Great Reshuffle," remote work, migration toward suburbs and smaller cities, and local housing markets. European Economic Review.

Liu, G., Zhu, Y., Kang, M., Yue, L., et al. (2025). Native design for 6G digital twin network: Use cases, architecture, functions, and key technologies. IEEE Internet of Things Journal, 12(15), 29135–29151. https://doi.org/10.1109/JIOT.2025.3553500

LGA-Local Government Association. (2026a). A playbook for agentic AI in local government.

LGA-Local Government Association. (2026b). OSCAR—Orchestrated Service & Citizen AI Router.

LGA-Local Government Association. (2026c). Milton Keynes City Council and Valon: Streamlining planning with AI.

LGA-Local Government Association. (2026d). Bradford Council: Supporting the adult social care front door with AI digital assistants.

Lum, K., & Isaac, W. (2016). To predict and serve? Significance, 13(5), 14–19. doi:10.1111/j.1740-9713.2016.00960.x.

LYNCH, K. (1960) The Image of the City. The MIT Press, Cambridge (MA, USA), pp.9-10

MARIAS, J, RIDRUEJO, D., CHUECA, F. (1983) Ciudades. Editorial Prensa Española, Toledo, p.231

MCKINSEY (2023). What's the future of generative AI? An early view in 15 charts. MCKINSEY & Company. Published Aug 2023. https://www.mckinsey.com/featured-insights/mckinsey-explainers/whats-the-future-of-generative-ai-an-early-view-in-15-charts retrieved by Sep 2025

Meerow, S., Newell, J. P., & Stults, M. (2016). Defining urban resilience: A review. Landscape and Urban Planning, 147, 38–49. https://doi.org/10.1016/j.landurbplan.2015.11.011

MERCER (2019). «Quality of Living Mercer Index. 2019», https://mobilityexchange.mercer.com/Insights/quality-of-living-rankings retrieved by March 2025

Mercer. (2024). Quality of living city ranking 2024. Mercer.

MTA-Metropolitan Transportation Authority. (2025). MTA and Google Public Sector announce preventive track maintenance pilot program.

Ministry of Defence Singapore. (2025). Total Defence Day commemoration event, 15 February 2025. Government of Singapore. https://www.mindef.gov.sg/news-and-events/latest-releases/15feb25_speech3/

MITRA et al (2024) Stress Due to Inflation: Changes over Time, Correlates, and Coping Strategies among Working-Age Adults in the United States. International journal of environmental research and public health, 21(2), 157. https://doi.org/10.3390/ijerph21020157

Municipality of Amsterdam. (2025a). AI & environmental law: Prototype and pilot.

Municipality of Amsterdam. (2025b). AI as support for procurement processes within the Municipality of Amsterdam.

Municipality of Amsterdam. (2026). Amsterdam Environmental Vision 2050: Energy systems and data-centre policy.

Nabatchi, T., Sancino, A., & Sicilia, M. (2017). Varieties of participation in public services: The who, when, and what of coproduction. Public Administration Review, 77(5), 766–776.

NIST-National Institute of Standards and Technology. (2023). Artificial Intelligence Risk Management Framework (AI RMF 1.0).

NIST-National Institute of Standards and Technology. (2024). The NIST Cybersecurity Framework (CSF) 2.0. https://nvlpubs.nist.gov/nistpubs/CSWP/NIST.CSWP.29.pdf

National Police Chiefs' Council, & Association of Police and Crime Commissioners. (2020). National policing digital strategy: Digital, data and technology strategy 2020–2030.

New York City Department of Citywide Administrative Services. (2025). Demand Response Program.

Nicholas, J. P., Donovan, A., Oppenheimer, C., Bell, L., & Van Wyk de Vries, M. (2026). How trust shapes individual resilience to natural hazards: A systematic review. Natural Hazards, 122, Article 48. https://doi.org/10.1007/s11069-025-07816-w

Nokia. (2025). Transforming the 6G vision to action. https://www.nokia.com/asset/214027/

NORDICEDGE. (2018) https://www.nordicedge.org/ retrieved by March 2025

NSW Reconstruction Authority. (2026). Resilient Homes Program data breach.

OECD. (2019). Good governance for critical infrastructure resilience. OECD Publishing. https://doi.org/10.1787/02f0e5a0-en

OECD. (2020b). Innovative citizen participation and new democratic institutions: Catching the deliberative wave. OECD Publishing.

OECD. (2020a). OECD regions and cities at a glance 2020. OECD Publishing.

OECD. (2021) https://www.oecd.org/economic-outlook/ retrieved by September 2025

OECD. (2021). Water governance in Cape Town, South Africa. OECD Publishing. https://doi.org/10.1787/a804bd7b-en.

OECD. (2022a). Housing taxation in OECD countries. Paris: OECD Publishing.

OECD. (2022b). OECD guidelines for citizen participation processes. OECD Publishing.

OECD. (2023b). Confronting the cost-of-living and housing crisis in cities. Paris: OECD Publishing.

OECD. (2023a). Rethinking regional attractiveness in the new global environment. OECD Regional Development Studies. OECD Publishing. doi:10.1787/a9448db4-en.

OECD. (2023c). Smart City Data Governance: Challenges and the Way Forward. OECD Publishing. https://doi.org/10.1787/e57ce301-en

OECD. (2024a). Cities turning crisis into change: Post-pandemic pathways to resilience in complex times. OECD Regional Development Papers. OECD publication.

OECD. (2024b). OECD regions and cities at a glance 2024. OECD Publishing.

OECD. (2024c). OECD survey on drivers of trust in public institutions—2024 results: Building trust in a complex policy environment. OECD Publishing. https://doi.org/10.1787/9a20554b-en

OECD. (2024d). Understanding labour shortages: The structural forces at play. In OECD Economic Outlook, Volume 2024 Issue 2. Paris: OECD Publishing.

OECD. (2025c). Exploring new frontiers in citizen participation in the policy cycle. OECD Publishing.

OECD. (2025d). Governing with Artificial Intelligence: The State of Play and Way Forward in Core Government Functions. OECD Publishing. https://doi.org/10.1787/795de142-en

OECD. (2025b). Government at a glance 2025: Satisfaction with public administrative services.

OECD. (2025a). Housing, permitting, construction-cost and supply analysis in country economic surveys, including Spain and Ireland. Paris: OECD Publishing.

OECD. (2026d). Intermediary cities and regional development. Paris: OECD Publishing.

OECD. (2026b). OECD Survey on Drivers of Trust in Public Institutions 2026 Results. OECD Publishing. Drivers of trust in local government.

OECD. (2026c). Restoring affordability and improving the functioning of the housing market. In OECD Economic Surveys: Austria 2026. Paris: OECD Publishing.

OECD. (2026a). Venture capital investments in artificial intelligence through 2025 (OECD Policy Briefs). OECD Publishing. https://www.oecd.org/en/publications/venture-capital-investments-in-artificial-intelligence-through-2025_a13752f5-en.html

OECD/International Transport Forum. (2024). Sustainable accessibility for all. OECD Publishing. doi:10.1787/5c91857c-en

ONS-Office for National Statistics. (2024). Geographical mobility of young people across English towns and cities. London: ONS.

Ondiviela, J. A. (2025). WorldWide Observatory for Attractive Cities: 2025 edition. Universidad Francisco de Vitoria. https://prd-webrepository.tomorrow.city/wp-content/2025/10/WWObservatoryAttractiveCities2025.pdf

PARILLA, J. and LIU, S. (2019) TALENT-DRIVEN ECONOMIC DEVELOPMENT. Metropolitan Policy Program at Brookings. Washington, D.C. https://www.brookings.edu/wp-content/uploads/2019/10/2019.10.15_Brookings-Metro_Talent-driven-economic-development_Parilla-Liu.pdf retrieved by September 2025

PATHAK, M. et al (2025) Stress Due to Inflation and Its Association with Anxiety and Depression Among Working-Age Adults in the United States. International Journal of Environmental Research and Public Health, 22(1), 26. https://doi.org/10.3390/ijerph22010026

Petrovici, N., Bourdin, S., & Torre, A. (2026). What shapes a livable city? Subjective and objective determinants of city satisfaction in Romania. Cities, 169, 106565. https://doi.org/10.1016/j.cities.2025.106565

PCT-Pew Charitable Trusts. (2026). Austin's surge of new housing construction drove down rents.

PINTO, C.A. (2009) «Manifesto for a new urbanity. European Urban Charter II». Council of Europe. Strasbourg, p.49 https://rm.coe.int/urban-charter-ii-manifesto-for-a-new-urbanity-publication-a5-58-pages-/168095e1d5 retrieved by Aug 2025

PUB, Singapore's National Water Agency. (2023). New recycling requirements for wafer fabrication, electronics and biomedical industries. PUB.

REPUTATION INSTITUTE. (2017) World's most reputable cities.2017 https://insights.reputationinstitute.com/blog-ri/the-world-s-most-reputable-cities-explained retrieved by Oct 2025

Reuters. (2025a, November 3). Microsoft to invest over $15 billion in UAE, secures U.S. export licenses for Nvidia chips.

Reuters. (2025b, September 29). Abu Dhabi approves $11.4 billion expansion of strategy to enhance quality of life.

Rodríguez-Piñeiro, J., Wei, Z., Wang, J., Gutiérrez, C. A., & Correia, L. M. (2025). 6G-enabled vehicle-to-everything communications: Current research trends and open challenges. IEEE Open Journal of Vehicular Technology, 6, 2358–2391. https://doi.org/10.1109/OJVT.2025.3599570

ROSSI, A. (1978) La arquitectura de la ciudad. Ed. Gustavo Gili. Barcelona. pp.148-149

Rotterdam Court of Audit. (2024). Kleur bekennen: Follow-up investigation into algorithms.

Saiz, A. (2010). The geographic determinants of housing supply. Quarterly Journal of Economics.

Security Committee. (2025). Security Strategy for Society: Government resolution (Publications of the Finnish Government 2025:3). Finnish Government. https://urn.fi/URN:ISBN:978-952-383-817-8

SHAKESPEARE, W. (1609) The tragedy of Coriolanus. Act3 Scene1.

SMARTCITY EXPO & WW CONGRESS. (2024) http://www.smartcityexpo.com/en/home retrieved by March 2025

Smith, S. F., Barlow, G. J., Xie, X.-F., & Rubinstein, Z. B. (2013). SURTRAC: Scalable urban traffic control. Proceedings of the Transportation Research Board Annual Meeting.

Stanford Institute for Human-Centered Artificial Intelligence. (2026). The 2026 AI Index report. Stanford University. https://hai.stanford.edu/ai-index/2026-ai-index-report

Strategic Policing Partnership Board. (2023). Policing Vision 2030. Association of Police and Crime Commissioners, College of Policing, & National Police Chiefs' Council.

Teodorovicz, T., Choudhury, P., & Starr, E. (2025). Location-specificity and relocation incentive programs for remote workers. Organization Science, 36(1), 186–212. doi:10.1287/orsc.2023.17712.

TERENCE (163 BC) (Latin: Publius Terentius Afer) Heauton Timorumenos (The Self-Tormentor) Act I, scene 1, line 25 (77).

THE ECONOMIST (2021). «Global Liveability Report 2021» https://www.eiu.com/n/campaigns/global-liveability-index-2021/ retrieved by September 2025

Tokyo Metropolitan Government. (2025). Zero Emission Tokyo strategy and Tokyo Environmental White Paper 2025.

TYBOUT, A. & CALDER, B. (2010) Kellogg on Marketing. WILEY. New Jersey p.8

U.S. Census Bureau. (2026). Remote work and residential sorting: IV evidence from expiring office leases (CES Working Paper 26-34).

U.S. EPA-Environmental Protection Agency. (2024). Enforcement alert: Drinking water systems to address cybersecurity vulnerabilities. U.S. EPA.

UK Government. (2025). Algorithmic Transparency Recording Standard: Guidance for public sector bodies.

UN (2016) Naciones Unidas, «Nueva Agenda Urbana,» 2016. Available: https://habitat3.org/wp-content/uploads/NUA-Spanish . retrieved by March 2025

UN (2019) United Nations - Department of Economic ad Social Affairs, «World Urbanization Prospects,» 2019. Available: https://population.un.org/wup/Publications/Files/WUP2018-Report.pdf retrieved by March 2025.

UNDRR. (2017). Sendai Framework terminology: Resilience. UNDRR.

UNESCO CREATIVE CITIES. (2019). http://www.unesco.org/culture/culture-sector-knowledge-management-tools/09_Info%20Sheet_Creative%20Cities%20Network.pdf p.1, retrieved by Oct 2025

UN-Habitat (2020). World Cities Report 2020: The Value of Sustainable Urbanization. UN. https://unhabitat.org/world-cities-report-2020-the-value-of-sustainable-urbanization retrieved by March 2025.

UN-Habitat. (2019). Urban chances, city growth and the sustainability challenge: A research dissemination report. United Nations Human Settlements Programme.

UN-Habitat. (2021). Centering people in smart cities. United Nations Human Settlements Programme.

UN-Habitat. (2022). Our city plans: An incremental and participatory toolbox for urban planning. United Nations Human Settlements Programme.

UN-Habitat. (2024). World Cities Report 2024: Cities and Climate Action. UN-Habitat.

UN-Habitat. (2026). World Cities Report 2026: The global housing crisis—Pathways to action. Nairobi: United Nations Human Settlements Programme.

UN-DESA United Nations Department of Economic and Social Affairs. (2024). UN e-government survey 2024: Accelerating digital transformation for sustainable development. United Nations.

United Nations Human Settlements Programme. (2020). United Nations system-wide guidelines on safer cities and human settlements. UN-Habitat.

United Nations Office for Disaster Risk Reduction. (2017). Disaster Resilience Scorecard for Cities. UNDRR. https://mcr2030.undrr.org/disaster-resilience-scorecard-cities

United Nations Office for Disaster Risk Reduction. (2024). Disaster Resilience Scorecard for Cities: Multi-Hazard Early Warning Systems Addendum. UNDRR/IFRC. https://mcr2030.undrr.org/mhews-scorecard

United Nations. (2026). The Sustainable Development Goals Report 2026: Goal 11—Sustainable cities and communities.

UTILITY DIVE (2025a). Trump freezes IRA funding. https://www.utilitydive.com/news/president-trump-inflation-reduction-act-executive-order-ev-mandate/738001/ retrieved by March 2025

UTILITY DIVE (2025b). Trump funding freeze leaves IIJA, IRA projects in limbo. https://www.utilitydive.com/news/trump-funding-freeze-iija-ira-projects/738628/ retrieved by March 2025

VAN DEN BERG, L.; VAN DE MEER, J.; OLIGAAR, A. (2006) The attractive city: Catalyst of Sustainable Urban Development Erasmus University, Rotterdam. San Sebastián : Eusko Ikaskuntza. p.489

Vienna Housing Fund (2025). Public-land and subsidized-housing framework documentation. Vienna: City of Vienna.

WHITE HOUSE (2025). Unleashing American Energy. https://www.whitehouse.gov/presidential-actions/2025/01/unleashing-american-energy/ retrieved by Aug 2025

World Bank Group. (2021). South Africa financial sector assessment program: Climate risks and opportunities. World Bank.

World Bank. (2017). Transforming the urban space through transit-oriented development: The 3V approach. World Bank.

World Bank. (2023). Thriving: Making Cities Green, Resilient, and Inclusive in a Changing Climate. World Bank.

World Bank. (2024). Promoting livable cities by investing in urban mobility. World Bank.

World Bank. (2025). Consultation on civic and citizen engagement framework and scorecard indicator. World Bank Group

World Economic Forum. (2026). The Global Risks Report 2026 (21st ed.). World Economic Forum. https://www.weforum.org/publications/global-risks-report-2026/

World Health Organization. (2024). Ambient (outdoor) air pollution. WHO.

World Health Organization. (2026). Heat and health. WHO.

Yan, Y., Wang, K., & Qu, X. (2024). Urban air mobility (UAM) and ground transportation integration: A survey. Frontiers of Engineering Management, 11, 734–758. doi:10.1007/s42524-024-0298-0

Zuk, P., Conversi, D., & Zuk, P. (2024). Conceptualising energy nationalism in the context of climate change: Framework and review. Frontiers in Energy Research, 12, 1349581.

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