

IESE Cities in Motion Index

2024



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Cities in
Motion

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2024



Business School
University of Navarra

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Foreword

We are pleased to present the ninth edition of the Cities in Motion Index (**CIMI**) for the year 2024. Since its first publication in 2014, our index has become an essential tool for understanding the complexity and dynamism of cities in today's global context. This year, the **CIMI** has undergone significant updates and methodological refinements that reflect not only the changing urban landscape, but also the evolution of our understanding of what makes a city smart and sustainable.

One of the most notable changes in this edition comes from Euromonitor, our main data provider, which has made a major update to the demographic data for cities, including information from the latest censuses. These updates have a direct impact on the forecast indicators, especially with the incorporation of the effects of the Russia-Ukraine war and recent economic changes resulting from the inflationary context experienced in many regions. Key items such as gross domestic product (GDP), inflation and other expenditure-related variables have undergone significant adjustments. In addition, the way some cities are defined has changed due to adjustments to administrative units.

While we have maintained the number of cities evaluated (183, 85 of which are capitals), we have made significant changes in the number and type of indicators. Some outdated indicators have been removed and others, more representative of current realities, have been added in areas such as economy, mobility and transportation, and urban planning. These include indicators for unicorn companies,¹ the presence of corporations included on the Fortune Global 500 list, the Global Startup Ecosystem Ranking (an indicator that assesses the health and dynamism of a city's startup ecosystem), the number of metro lines, and traffic fatality statistics (which reflect the road safety of urban infrastructure).

Given these significant changes in variables and methodology, it is important to emphasize that, as in previous years, the results of the **CIMI 2024** should not be directly compared with previous editions. The differences in indicators and evaluation methods mean that this year's ranking represents a new baseline for understanding and analyzing the cities.

It is also essential to take into account the inherent limitations of the data used. Some of the available indicators are only presented at the national level, so an approximation is made to adapt them to the city context. In addition, some variables may not fully capture the impact of certain dimensions of cities due to specific regulations or unique situations that apply in each city. Although our variables try to faithfully represent the reality of cities, it is important to bear in mind that they do not fully reflect their multifaceted complexity, so we urge a cautious interpretation of the results presented in this report.

As an additional innovation this year, we have introduced a statistical cluster analysis that identifies six distinct groups of cities, each with a unique combination of advanced technology, green infrastructure, and active technology labor markets. This analysis provides an additional perspective and complements the traditional ranking. In addition, London, the city at the top of our ranking, is the subject of a special analysis highlighting its leadership and areas for improvement.

In terms of data presentation, we have enhanced the radar charts with the new performance coverage area indicator (see the radar charts in **Appendix 2**), which shows both the current performance and growth potential of cities. This indicator provides a comprehensive perspective on a city's performance across the different dimensions assessed.

In addition, we are once again making the updated version of the **CIMI Calculator** available to readers on our website. The calculator allows users to enter the data for any city (for the variables included in this index) and shows the position the city would occupy in the ranking based on this input. This practical tool is useful both for cities that are already included in the ranking and wish to see what changes occur with more up-to-date variable values and for those that are not included in the **CIMI** but would like to see where they would rank.

¹ Emerging companies valued at over \$1 billion.

With these updates, the **CIMI 2024** has become an even more valuable resource for mayors, urban planners, researchers, and anyone interested in the progress and well-being of our cities. These improvements reflect our ongoing commitment to providing relevant analysis and perspectives that help shape the future of smart cities around the world.

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About us

IESE Cities in Motion is a research platform launched jointly by the Center for Globalization and Strategy and IESE Business School's Department of Strategy.

The initiative connects a global network of experts on cities and specialized private companies with local governments around the world. Our goal is to promote changes at the local level and develop valuable ideas and innovative tools to make cities more sustainable and smarter.

The platform's mission is to promote the Cities in Motion model, based on an innovative approach to city governance and a new urban model for the 21st century that revolves around four key factors: sustainable ecosystem, innovative activities, equity among citizens, and connected territory.

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Introduction: the need for a global vision

Innovation and prioritization of the most important issues for the future of cities requires the prior development of a strategic planning process, especially in today's world.

This process must be participatory, flexible and focused on a key objective: defining a sustainable action plan to make the city unique and raise its profile. Just as no two companies can have the same recipe for success, each city must seek to develop its own model based on a series of common ideas and considerations.

Experience shows that large cities should avoid short-termism, broaden their horizons, and use innovation more frequently to improve the efficiency and sustainability of the services they provide. They should also promote communication and get citizens and businesses engaged in their projects.

In the current scenario of armed conflict, this analysis is even more relevant. It is in these critical times that the true level of preparedness of cities to face crises that threaten their stability in various dimensions is revealed. It has become essential to implement a smart governance approach that takes into account the complexity of social factors and actors, and adopts a global perspective. In recent decades, national and international organizations have carried out studies to define and use indicators for different purposes, but with the common goal of diagnosing the situation of cities. The creation and selection of these indicators are influenced by the specific characteristics of each study, the application

of statistical and econometric methods appropriate to the theoretical model, the available data, and analytical preferences.

Today, a wide range of urban indicators are available, but many are not standardized, lack consistency, and are therefore not suitable for comparing different cities. Despite efforts to develop urban indicators at the national, regional, and international level, their medium-term sustainability has always been limited. Such indicators have often been created to meet the specific information needs of entities with temporary funding. Moreover, in many cases their continuity has been subject to the political will of the moment. As a result, they disappeared when priorities changed or when new governments came to power. The indicators developed by international organizations, while striving for consistency and robustness to allow effective comparisons, tend to be partial or overly focused on specific areas such as technology, the economy, or the environment.

In light of all these considerations, the IESE Cities in Motion Index (**CIMI**) has been designed with the aim of constructing a "next-level" indicator (in terms of its completeness, characteristics, comparability, and quality, as well as the objectivity of the information it contains) that makes it possible to measure the future sustainability of the world's leading cities and the quality of life of their inhabitants.

The **CIMI** aims to help citizens and governments understand the performance of cities in nine key dimensions:

human capital, social cohesion, economy, governance, environment, mobility and transportation, urban planning, international profile, and technology. All of the indicators come together around a strategic purpose, leading to a different kind of economic and social development that entails the creation of a global city and the promotion of entrepreneurship, innovation, and social justice, among other outcomes.

Because each city is unique and inimitable, with its own needs and opportunities, cities must design their own plan, set their own priorities, and be flexible enough to adapt to change.

Smart cities generate numerous business opportunities and possibilities for public-private sector collaboration. All stakeholders have a role to play, so a networked ecosystem that involves all of them—citizens, organizations, institutions, governments, universities, companies, experts, research centers, and non-profit entities—must be developed.

Working within a network has certain advantages. Such an approach makes it possible to better identify the needs of a city and its residents, set common goals, ensure ongoing communication among participants, increase learning opportunities, strengthen transparency, and apply more flexible public policies.

Private enterprise also has much to gain from a networked system of this kind, which enables private actors to engage in long-term collaboration with public authorities, access new business opportunities, better understand the needs of the local ecosystem, increase their international visibility, and attract talent.

In fact, thanks to its technical expertise and experience in project management, private enterprise (in collaboration with universities and other institutions) is ideally suited to lead and carry out smart city projects. Private-sector actors can help public-private entities achieve greater efficiency and significant savings.

Finally, we should not overlook the key role that the human factor plays in the development of cities. In the absence of an active, participatory society, any strategy, however smart and comprehensive, will be doomed to failure. Beyond technological and economic development, citizens are the key to taking cities from smart to wise. This is precisely the goal that every city should pursue—to get local residents and leaders to deploy all their talents in the pursuit of progress.

To help cities identify effective solutions, we have created an index that integrates nine dimensions into a single indicator and covers 183 cities around the world (see **Figure 1**). Thanks to its broad, integrated vision, the **CIMI** makes it possible to identify the strengths and weaknesses of each city.

Figure 1. Elements of analysis in the CIMI 2024



Our model: Cities in Motion—conceptual framework, definitions and indicators

Our platform provides a theoretical framework based on the analysis of numerous successful cases and in-depth interviews with city leaders, entrepreneurs, academics, and specialists in the field of urban growth. This framework suggests a series of stages that include context analysis, formulation of tactics, and subsequent execution. The first requirement for an adequate analysis is an understanding of the situation in terms of the key dimensions shown in **Figure 2** below, together with the indicators that are part of the **CIMI** calculation.



Human capital

The primary purpose of any city should be to develop its human capital. A city with smart local government should aim to attract and retain talent, develop educational strategies, and foster creativity and research.

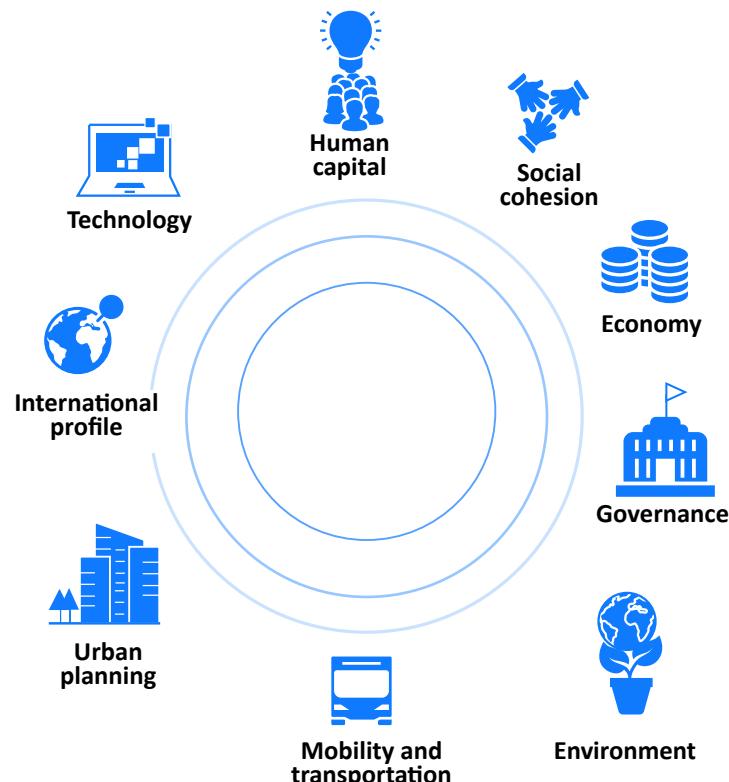
Table 1 shows the indicators related to the human capital dimension, together with a description of each one, the units of measurement, and the data sources used.

Although human capital encompasses aspects beyond what these indicators are able to capture, there is a global consensus on the importance of level of education and access to culture as essential elements in assessing this dimension. Human capital is a key pillar of development, and since the Human Development Index (HDI) published annually by the United Nations Development Program (UNDP) takes into account both education and culture, it makes sense to use these indicators to identify differences in human capital between cities.

The human capital dimension in the **CIMI** is composed of the 10 variables listed in **Table 1**, most of which enter the index with a positive sign because of their contribution to development. Private expenditure on education per capita is the exception.

To assess access to culture, we consider factors such as the number of museums, galleries, and theaters, as well as spending on leisure and recreation. These metrics reflect a city's commitment to culture and human

Figura 2. Dimensiones esenciales del ICIM 2024



development. Cities that are globally recognized for their dynamism and creativity tend to have accessible cultural spaces, promote the arts, and ensure their preservation. In turn, the availability of cultural and recreational offerings in a city tends to translate into higher spending on such activities.

Finally, private expenditure on education per capita indicates the amount each individual invests to obtain a quality education. A high value suggests that government spending on education is insufficient, as individuals must meet these costs in order to have access to adequate education. This indicator therefore contributes negatively to the index.



Social cohesion

A growing number of cities recognize that true urban intelligence goes beyond technology and therefore include social cohesion as an essential element for their development. Amsterdam, Berlin, and Stockholm are examples of metropolises that have integrated inclusion initiatives into their development strategies, taking into account the diversity of their residents. The Dutch capital stands out for its gender equality policies and respect for different sexual identities and orientations. The German capital, for its part, has been particularly proactive in integrating refugees, especially in the wake of the Europe-

Table 1. Human capital indicators

No.	Indicator	Description / Unit of measurement	Source
1	Secondary and higher education	Proportion of population with secondary and higher education.	Euromonitor
2	Schools	Number of public and private schools in the city.	OpenStreetMap
3	Business schools	Number of business schools in the city included in the Financial Times TOP 100.	<i>Financial Times</i>
4	Expenditure on education	Annual private expenditure on education per capita.	Euromonitor
5	Expenditure on leisure and recreation	Consumer expenditure on leisure and recreation as a percentage of GDP.	Euromonitor
6	Expenditure on leisure and recreation per capita	Annual consumer expenditure on leisure and recreation per capita.	Euromonitor
7	Student mobility	International flow of mobile students at the tertiary level. Number of students.	UNESCO
8	Museums and art galleries	Number of museums and art galleries in the city.	OpenStreetMap
9	Number of universities	Number of TOP 500 universities.	QS Top Universities
10	Theaters	Number of theaters in the city.	OpenStreetMap

an migration crisis. The Swedish capital and other cities in the country stand out for their promotion of gender equality policies and LGBTIQ+ rights.

Social cohesion in the urban environment concerns the harmonious coexistence of groups with different incomes, cultures, ages, and occupations. Analyzing a city's social environment means looking at factors such as immigration, community development, care for the elderly, the quality of the health system, and measures to ensure safety and inclusion for all.

Interaction of diverse social groups is essential to achieving urban sustainability. In this context, social cohesion implies a situation in which there is an alignment of visions between citizens and authorities, based on social justice, the rule of law, and solidarity.

In the contemporary context, where geopolitical conflicts and tensions in different regions of the world are causing massive population displacements and destabilizing entire communities, social cohesion and inclusion policies in cities are particularly relevant. Cities that have taken proactive measures to promote inclusion and diversity are better prepared to receive and support those seeking refuge from conflict in their regions of origin. Urban environments with strong social cohesion can also serve as models, demonstrating that it is possible to maintain peace and harmony amidst diversity, and that inclusion benefits both newcomers and long-term residents. Interaction and mutual understanding in these cities can offer valuable lessons in times of increasing polarization and global challenges.

Table 2 lists the indicators chosen to examine the social cohesion dimension, provides a description of each one, and indicates the data sources used. The indicators were selected from among those available with the aim of covering all the sociological sub-dimensions related to social cohesion.

In designing this dimension, the death rate per 100,000 inhabitants and the crime rate are considered negative indicators. On the other hand, indicators such as the quality of health care and the number of hospitals and health centers are assigned a positive value because these basic services strengthen social cohesion.

Work plays an essential role in any society. Indeed, history shows that lack of employment can destabilize the social compact. A high unemployment rate therefore has a negative impact on social cohesion, while a high percentage of women working in the public sector is seen as a positive sign, reflecting gender equality in government positions.

The Gini Index, derived from the Gini coefficient, is a barometer of social inequality. A value of 0 indicates perfectly equal income distribution, while a value of 100 indicates extreme inequality. Higher index values indicate greater inequality and are therefore considered to have a negative impact on social cohesion.

Finally, the Global Peace Index measures the peace and stability of a country or region, taking into account internal factors such as criminality and external factors such as armed conflicts and military expenditure. Countries with high scores on this index have low levels of violence, so this indicator is inversely related to a city's **CIMI** ranking in this dimension.

Table 2. Social cohesion indicators

No.	Indicator	Description / Unit of measurement	Source
11	Female-friendly	This variable indicates whether a city provides a friendly environment for women (on a scale of 1 to 5). Cities with a value of 1 have a more hostile environment for women; those with a value of 5 are very female-friendly.	Nomad List
12	Hospitals	Number of public and private hospitals in the city. Includes health centers.	OpenStreetMap
13	Crime rate	Estimation of the general level of crime in a city.	Numbeo
14	Slavery Index	The variable represents the national government's response to situations of slavery in the country. The countries that rank highest are the ones dealing with the problem most effectively.	Walk Free Foundation
15	Happiness Index	Countries with a higher value are those where the level of overall happiness is higher.	World Happiness Index
16	Gini Index	Index values range from 0 to 100. A value of 0 expresses perfect equality of income distribution, and 100, maximal inequality.	Euromonitor
17	Global Peace Index	This index measures the level of peace/violence in a country or region. Countries with a high level of violence rank lowest.	Centre for Peace and Conflict Studies, University of Sydney
18	Health Care Index	Estimation of the overall quality of the health care system, health care professionals, equipment, costs, etc.	Numbeo
19	LGBTQ+ friendly	This variable indicates whether a city provides a friendly environment for the LGBTQ+ community (on a scale of 1 to 5). Cities with a value of 1 have a more hostile environment for this community; those with a value of 5 are very LGBTQ+ friendly.	Nomad List
20	Price of property	Property price as a percentage of income. Calculated as the ratio of the average price of a home to average annual disposable household income.	Numbeo
21	Female employment rate	Rate of female employment in the public sector. Value from 0 to 1.	International Labor Organization
22	Death rate	Death rate per 100,000 city inhabitants.	Euromonitor
23	Unemployment rate	Unemployment rate (number of unemployed/labor force).	Euromonitor
24	Murder rate	Murder rate per 100,000 city inhabitants.	Nomad List
25	Suicide rate	Suicide rate per 100,000 city inhabitants.	Nomad List
26	Terrorism	Number of terrorist incidents in the city in the last three years.	Global Terrorism Database, University of Maryland
27	Racial tolerance	Index of racial tolerance in a city.	Nomad List

Economy

In the changing post-pandemic financial landscape, and amid inflationary tensions stemming from international conflicts such as the Russia-Ukraine war, we have had to reevaluate and adapt our analysis of the economy dimension of cities. While the fundamental aspects that promote the economic development of a territory—local economic development, transition, and strategic industrial plans, cluster development, innovation and entrepreneurial initiatives—are still essential, resilience and adaptability have become more important.

Table 3 shows the indicators used to capture a city's performance in this dimension, a brief description of each one, and the information sources used.

This year, the indicators have been updated and expanded to reflect economic performance in the new context. Three new variables have been introduced: the number of unicorn companies (i.e., startups valued at over a billion dollars); the number of companies on the Fortune Global 500 list, which reflects the presence of large corporations in a city; and the Global Startup Ecosystem Ranking, an indicator that evaluates the health and dynamism of a city's startup ecosystem. The first two enter this dimension with a positive sign, while the ecosystem ranking is assigned a negative value.

The **CIMI** seeks to assess the future sustainability and quality of life of the world's major cities across a number

of dimensions. Although real GDP reflects a city's economic strength and the income of its residents, and is considered by many studies to be the most important indicator of a city's or country's performance, in this report it is given similar weight to other indicators within the nine **CIMI** dimensions. Therefore, a city with a high GDP may not stand out if it does not perform well on other criteria. For example, an economically robust city that faces problems of mobility, inequality, or unstable finances, or that uses environmentally harmful technologies, may not be among the top performers. In addition, the annual GDP growth projection is used to forecast each city's future development.

The labor productivity variable reflects the performance, efficiency, and technological progress of a city's production system. In terms of competitiveness, both locally and internationally, it influences aspects such as wages, return on investment and company profits. It is essential to consider this variable in the economy dimension, since variations in productivity can be a determining factor in disparities in the quality of life of workers and the long-term sustainability of the system.

Some of the indicators selected for this dimension reflect various facets of a city's business environment. These include the number of publicly traded companies, the entrepreneurial drive of the population (as measured by the percentage of improvement-driven opportunity entrepreneurs), and the time required and regulatory ease of starting a business. These parameters assess the long-term sustainability of a city and its potential to improve quality of life for its residents, which are particularly relevant factors in the context of ongoing wars and in the post-pandemic era. In this regard, the time required and ease of starting a business are negatively associated in the economy dimension, as shorter times point to greater ease of starting a business. On the other hand, the number of publicly traded companies and people's willingness and ability to undertake entrepreneurial activity are positively related, as high values for these indicators indicate a vibrant economic environment conducive to business creation and growth.

Mortgage as a percentage of household income complements the information provided by the price of private property. The objective is to determine how affordable it is for an average family to obtain a 20-year mortgage. The higher the percentage of household income that goes towards paying a mortgage, the less favorable the situation is for families, so this variable is factored into the index calculation with a negative sign.

Table 3. Economy indicators

No.	Indicator	Description / Unit of measurement	Source
28	Unicorn companies	Number of unicorn companies in the city.	CB Insight
29	Ease of starting a business	Top positions in the ranking are held by cities that have a more favorable regulatory environment for setting up and operating a local business.	World Bank
30	Global Startup Ecosystem Index (GSEI)	Ranking of startup ecosystems.	StartupBlink
31	Mortgage	Mortgage as a percentage of income is the monthly mortgage cost as a proportion of household income (the lower the better).	Numbeo
32	Motivation for individuals to undertake early-stage entrepreneurial activity	The percentage of opportunity-driven early-stage entrepreneurs divided by the percentage of necessity-driven early-stage entrepreneurs.	Global Entrepreneurship Monitor
33	Number of company headquarters	Number of headquarters of publicly traded companies.	Globalization and World Cities (GaWC)
34	Number of Fortune 500 companies	Number of Fortune 500 companies present in the city.	Fortune 500
35	GDP	Gross domestic product in millions of US dollars.	Euromonitor
36	Estimated GDP	Projected growth in gross domestic product for the next year.	Euromonitor
37	GDP per capita	Gross domestic product per capita.	Euromonitor
38	Purchasing power	Purchasing power in buying goods and services in the city (based on the average salary), compared to that of New York City residents. If local purchasing power is 40, this means that inhabitants with an average salary can afford to buy 60% less goods and services than New York City residents with an average salary.	Numbeo
39	Productivity	Labor productivity calculated as GDP/employed population (in thousands).	Euromonitor
40	Hourly wage in US dollars	Hourly wage in the city in US dollars.	Euromonitor
41	Time required to start a business	Number of calendar days needed to complete the procedures to legally operate a business.	World Bank

On the other hand, the variables for the hourly wage in a city and an index comparing local purchasing power to that of a New York resident are considered positive indicators as high values reflect a favorable employment situation.

The new set of indicators used in this edition aims to provide a more complete and contextualized picture of the economic reality of cities, considering both their current strengths and their potential for adaptation and growth in a post-pandemic world facing significant global economic challenges.



Governance

The term *governance* refers to the capacity and efficiency with which the state intervenes and directs its actions. In this context, it is essential to recognize the centrality of citizens in finding solutions to urban challenges. This means taking into account issues such as active citizen participation, the ability of public authorities to work with business leaders and community agents, and the implementation of digital government strategies. Governance also encompasses strategies aimed at optimizing administrative efficiency by incorporating organizational and management innovations. This scenario represents a valuable opportunity for the private sector, which can make a significant contribution to improving efficiency.

In this study, governance is understood as a factor closely linked to the financial health of a city or country. Public finances play a crucial role in determining the quality of life of residents and the sustainability of a city. They determine current and future taxes for citizens and businesses, inflation expectations, opportunities for public investment in essential infrastructure, and incentives for private investment. If the state requires funding, it may end up competing with the private sector for the financial resources available, which could affect investment.

Table 4 shows the governance indicators used in this report, a description of each one, the units of measurement, and the reference sources used.

The level of reserves reflects the short- and medium-term resilience of public finances, their ability to adapt to economic fluctuations, and the robustness and viability of the economic structure as regards the government. The number of embassies and consulates reflects a city's international weight on the global stage, based on the diplomatic missions that foreign nations establish there.

Cities with ISO 37120 certification have demonstrated a commitment to optimizing services and the quality of life of their inhabitants. This standard, which defines criteria for smart cities based on 100 indicators, provides a basis for comparing cities on equal terms. This factor is considered a positive indicator.

The total number of research centers and government buildings indicates the presence and relevance of local government in the daily lives of citizens, responding to their needs and performing administrative and regulatory functions. Both variables are considered positive indicators in the formulation of the **CIMI**.

The strength of legal rights index measures the degree to which collateral and bankruptcy laws protect the rights of borrowers and lenders and thus facilitate lending. Scores range from 0 (low) to 12 (high), with higher scores indicating that these laws are better designed to expand access to credit. It is imperative that governments, whether national or local, effectively establish and guarantee the rights of citizens and companies within their jurisdictions. Perceptions of respect for legal rights affect many facets of the life of a nation or city, including the business environment, incentives to invest, and legal certainty. Accordingly, the index values are assigned a positive value in the construction of the indicator for this dimension.

The Corruption Perceptions Index, which gauges perceptions of government corruption, serves as a barometer to measure the integrity of governance. A growing perception of corruption in the machinery of government indicates that government intervention may not be effective from a socioeconomic perspective, as corruption can inflate the cost of public services. In addition, the propensity to invest or establish a business in places perceived as corrupt is lower, which has implications for sustainability. In the **CIMI**, this index is used as an indicator for the governance dimension and assigned a positive value because of the way it is calculated by Transparency International, which gives a score of 0 to highly corrupt countries and 100 to those perceived as very transparent.

The presence of an open data platform at the municipal level demonstrates transparency in local administration, provides a means of communication with citizens, and can serve as a foundation for new business models. Cities that have such a platform are assigned a value of 1; those that do not are assigned a value of 0. This indicator therefore contributes positively to the governance dimension.

In addition, the EGDI shows the extent to which a country takes advantage of information technologies (IT) to promote access and inclusion for its population. The index combines three essential pillars of digital government: quality and availability of online government services, telecommunication infrastructure, and human capacity. These metrics contribute positively in the analysis.

The Democracy Index, in turn, reflects the state of democracy in a country, as measured by its system for selecting leaders, freedom of expression, government effectiveness, the level of political participation, and political culture. The top-ranked countries are those

Table 4. Governance indicators

No.	Indicator	Description / Unit of measurement	Source
42	Bitcoin legal	Whether or not Bitcoin is legal in the city.	Nomad List
43	ISO 37120 certification	Whether or not the city has ISO 37120 certification. Certified cities are committed to improving urban services and quality of life. This variable is coded from 0 to 6. The highest value is assigned to the cities that have been certified longest. A value of 0 is assigned to cities that are not certified.	World Council on City Data (WCCD)
44	Government buildings	Number of government buildings and premises in the city.	OpenStreetMap
45	Embassies	Number of embassies in the city.	OpenStreetMap
46	Public sector employment	Percentage of employed population working in public administration and defense; education; health; community, social and personal service activities; and other activities.	Euromonitor
47	E-Participation Index	This index supplements the E-Government Development Index (EGDI) and focuses on the use of online services to facilitate provision of information by governments to citizens ("e-information sharing"), interaction with stakeholders ("e-consultation"), and engagement in decision-making processes ("e-decision-making").	United Nations
48	Human Capital Index	This variable reflects the human capacity dimension, which is one of the three dimensions that make up the EGDI (online service, telecommunication connectivity, and human capacity).	United Nations
49	Strength of legal rights index	This index measures the degree to which collateral and bankruptcy laws protect the rights of borrowers and lenders and thus facilitate access to loans. The index ranges from 0 (low) to 12 (high), with higher scores indicating that laws are better designed to expand access to credit.	World Bank
50	Telecommunication Infrastructure Index	This variable reflects the development status of telecommunication infrastructure, which is one of the three dimensions that make up the EGDI (online service, telecommunication connectivity, and human capacity).	United Nations
51	Corruption Perceptions Index	Countries with values close to 0 for this variable are perceived as very corrupt, and those with values close to 100 are perceived as very transparent.	Transparency International
52	Online Service Index	This variable reflects the scope and quality of online services, which is one of the three dimensions that make up the EGDI (online service, telecommunication connectivity, and human capacity).	United Nations
53	Research offices	Number of research and technology offices in the city.	OpenStreetMap
54	Open data platform	Whether or not the city has an open data system.	CTIC Foundation and Open World Bank
55	Democracy Index	The top-ranked countries are the ones considered most democratic.	Economist Intelligence Unit
56	Reserves	Total reserves in millions of current dollars. City-level estimate based on population.	World Bank
57	Reserves per capita	Reserves per capita in millions of current dollars.	World Bank

perceived to be most democratic, so the index rankings enter the **CIMI** with a negative sign.

Finally, the percentage of employment in the public sector—in education, defense, health, and other areas—is considered a positive indicator in this dimension because it reflects investment in human capital within the public sector.



Environment

The sustainable progress of a city is understood as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”¹ In line with this definition, it is essential to consider elements such as the promotion of environmental sustainability through anti-pollution strategies, measures to support green buildings and alternative energy sources, adequate water and waste management, and the implementation of policies that mitigate the impacts of climate change to ensure the long-term resilience of cities.

As the **CIMI** aims to assess environmental sustainability, the environment is considered a key pillar of this assessment. **Table 5** lists the indicators used for this dimension, together with a description of each one, the units of measurement, and the sources consulted.

The indicators chosen include assessments of air pollution and urban water quality, which directly affect the quality of life of citizens and the sustainability of the structure of production and urban structure.

Carbon dioxide (CO_2) emissions result from fossil fuel combustion and cement production, while methane emissions result from human practices such as agriculture and industrial manufacturing. Because they are closely related to the greenhouse effect, these emissions are key parameters for assessing air pollution. In fact, reducing the levels of these indicators is one of the central goals of the Kyoto Protocol.

Other important measures of urban air quality include $\text{PM}_{2.5}$ and PM_{10} . These terms refer to particulate matter, which are tiny particles or droplets in the air, made up of substances, including dust, ash, soot, trace metals, cement, and pollen. $\text{PM}_{2.5}$ particles have a diameter of 2.5 microns or less, while PM_{10} particles have a diameter of 10 microns or less. The particles are mostly composed of inorganic elements such as silicates and aluminates, as well as heavy metals and organic substances bound to carbonaceous particles. These parameters are commonly considered in indexes that focus on assessing environmental pollution. They are complemented by a city’s

ranking on the overall pollution index, which ranks cities in descending order of air pollution. These indicators are therefore included in this dimension with a negative sign.

The Environmental Performance Index (EPI), developed by Yale University, is an indicator based on the measurement of two crucial areas related to the environment: environmental health and ecosystem vitality. The former is divided into three sub-areas: effects of air pollution on human health, water quality, and the environmental burden of disease. Ecosystem vitality, in turn, encompasses seven sub-areas: ecosystem impacts of air pollution, water quality, biodiversity and habitat, forests, fisheries, agriculture, and climate change. Since this indicator is very comprehensive (covering almost all factors that can be measured to get a picture of the state and evolution of a city’s environment, and complemented by the other indicators included in the **CIMI**), we believe that the environmental dimension is proportionately represented in the index.

Water, in turn, is an essential renewable resource for tackling the challenges of climate change and its consequences. The *total renewable water resources per capita* metric includes both internal and external surface water resources. It reflects the resources available to a country to ensure a sustainable future and therefore enters the index with a positive sign.

Conversely, the *climate vulnerability* metric reflects a city’s climate vulnerability in 2070, assuming continued growth in carbon emissions. This variable provides a perspective on future threats from current pollution by considering the expected temperature increase at different times of the year. It enters the index with a negative sign because a pronounced temperature increase in an urban area poses significant risks to public health and economic stability.

Finally, given the prevalence of poor solid waste management, the average amount of municipal solid waste (garbage) generated annually per person (kg/year) in a city represents potential harm to its inhabitants and the environment. In many cities, poor waste management poses an additional health risk to people who work with waste materials. This variable therefore enters the index with a negative sign.

¹ Definition used in 1987 by the UN’s World Commission on Environment and Development, established in 1983.

Table 5. Environment indicators

No.	Indicator	Description / Unit of measurement	Source
58	CO ₂ emissions	Carbon dioxide emissions from fossil fuel use and cement production. Measured in kilotons.	World Bank
59	Methane emissions	Methane emissions caused by human activities such as agriculture and industrial methane production. Measured in kilotons of CO ₂ equivalent.	World Bank
60	Environmental Performance Index	Environmental Performance Index (from 1 [poor] to 100 [good]).	Yale University
61	CO ₂ Emission Index	Index of carbon dioxide emissions.	Numbeo
62	Pollution Index	Index of pollution.	Numbeo
63	PM ₁₀	A measure of particles in the air with a diameter of less than 10 microns (μm). Annual mean.	Global Residence Index
64	PM _{2.5}	A measure of particles in the air with a diameter of less than 2.5 μm. Annual mean.	iQAir
65	Percentage of population with access to water supply	Percentage of the population with reasonable access to an appropriate quantity of water resulting from an improvement in the supply.	World Bank
66	Renewable water resources	Renewable water resources per capita.	FAO
67	Solid waste	Average amount of municipal solid waste generated annually per person (kg/year).	Waste Management for Everyone
68	Climate vulnerability	Risk to the city due to climate change.	National Geographic



Mobility and transportation

Cities of the future face two major mobility and transportation challenges: ensuring efficient travel, often over large areas, and guaranteeing access to essential services.

Transportation and mobility—from highway and road infrastructure to air transport, vehicle fleets, and public transportation—have a direct impact on the well-being of a city's residents. These factors are critical to long-term urban sustainability. However, perhaps the most relevant issue is the indirect impact on the productive sector, either through the mobility of workers or the distribution of products.

Table 6 lists the indicators associated with the mobility and transportation dimension, together with a description of each one, the units of measurement, and the sources used in each case.

The bicycle, moped or scooter rental service variable reflects the presence of micromobility in each city, indicating whether or not one of these services is available. If the city has one of these rental systems, the variable takes the value 1, otherwise it takes the value 0.

The commute time index (evaluated exponentially), traffic index, and inefficiency index offer an insight into traffic complications, as evidenced by long commute times and the discomfort they cause to citizens. These

indicators reflect road safety and the efficiency of public transportation. An efficient and well-structured public transportation system can reduce traffic congestion and the number of accidents. Given their negative impact on urban sustainability, these indicators enter the **CIMI** with a negative sign.

The bike-sharing indicator provides information on a service that facilitates urban commuting in a city. High values of this variable indicate a more developed system, so it enters the **CIMI** with a positive sign.

In addition, the number of metro stations, the length of the network, and the number of existing lines (an indicator added this year) reflect a city's commitment and investment relative to its population. The number of inbound air routes and the availability of high-speed trains, in turn, indicate the level of development in mobility. A robust infrastructure encourages the creation of new air connections and promotes the flow of passengers in different modes of transportation. These parameters contribute positively to the index due to their beneficial impact.

Finally, the variables related to the number of vehicles and the percentage of households with bicycles in a city enter the index with negative and positive signs, respectively, due to their opposite effects on traffic and congestion.

Table 6. Mobility and transportation indicators

No.	Indicator	Description / Unit of measurement	Source
69	Bicycle, moped or scooter rental service	Whether or not the city has a bicycle, moped or scooter rental service.	NUMO
70	Bike sharing	Number of shared bicycles in the city.	Bike-Sharing World Map
71	Metro stations	Number of metro stations in the city.	Metrobits
72	Traffic Inefficiency Index	This index estimates traffic inefficiencies. High values represent high driving inefficiencies, such as long travel times.	Numbeo
73	Traffic and congestion index	Index of traffic and congestion in the city.	Numbeo
74	Exponential traffic index	This index is estimated by considering time spent in traffic. It is assumed that travel time dissatisfaction increases exponentially beyond 25 minutes.	Numbeo
75	Metro lines	Number of metro lines in the city	Metrobits
76	Length of metro system	Length of the metro system in the city.	Metrobits
77	Percentage of households with bicycles	Percentage of households with bicycles.	Euromonitor
78	High-speed train	Binary variable that shows whether the city has a high-speed train or not.	OpenRailwayMap
79	Vehicles in the city	Number of commercial vehicles in the city.	Euromonitor
80	Flights	Number of inbound flights (air routes) in a city.	OpenFlights



Urban planning

Urban planning has traditionally been a catalyst for development and a means of combating poverty. Today, it has become a collaborative endeavor that involves a wide range of actors, including citizens, civil society organizations, the public and private sectors, multilateral agencies, and the academic community.

Now more than ever, urban planning is intertwined with sustainability. To improve the quality of life in any urban area, it is imperative to consider local master plans and the design of green spaces and public areas, and to promote sustainable and smart urban development. Modern urban planning strategies should focus on building dense, well-connected cities with easy access to essential public services.

Based on the data collected, we have included in this dimension indicators that cover aspects such as urban planning schemes, the quality of sanitation infrastructure, and housing policy. **Table 7** lists these indicators, together with a description of each one, the units of measurement, and the data sources used.

Bicycles are an efficient, agile, affordable, healthy and environmentally friendly means of transportation. Their use promotes urban sustainability by avoiding polluting emissions and fossil fuel consumption. Given the posi-

tive impact of bikes, the **CIMI** includes indicators for the number of bicycle rental stations and bike-sharing systems—places where users can pick up and return bikes. Many of the cities recognized for their smart approach show a positive trend in bicycle use, which is why this indicator enters the index with a positive sign.

With the rise of electric vehicles and their positive contribution to the environment, many cities are encouraging their adoption by offering economic incentives. This dimension includes an indicator for the number of charging stations available in a city, which contributes positively to the index.

The *artificial intelligence projects* indicator reflects government initiatives underway that use AI to promote urban growth and well-being. A value of 1 is assigned if the city has such projects, and 0 if it does not. The assigned value enters the index with a positive sign.

The quality of sanitation services refers to the percentage of the urban population that has access to improved sanitation facilities that are not shared with other households. This parameter is strongly related to urban planning, since poor management can lead to health problems in the short and medium term.

Table 7. Urban planning indicators

No.	Indicator	Description / Unit of measurement	Source
81	Bicycles	Number of bike-rental or bike-sharing points, based on docking stations where they can be picked up and dropped off.	OpenStreetMap
82	Bike Advance	Whether or not the city has a bike-sharing system.	Bike Share Map
83	Buildings	The number of completed buildings in a city. The count includes structures such as high-rises and towers, but excludes other miscellaneous structures and buildings of varying status (under construction, proposed, etc.).	Skyscraper Source Media
84	Electric charging stations	Electric car charging points in the city.	OpenStreetMap
85	Percentage of the urban population with adequate sanitation services	Percentage of the urban population that uses at least basic sanitation services—that is, improved sanitation facilities that are not shared with other households.	World Bank
86	Artificial intelligence (AI) projects	Whether or not the city has AI projects.	AI Localism
87	Percentage of high-rises	Percentage of buildings classified as high-rises. A high-rise is a multi-floored building of at least 12 stories or 35 m in height (115 feet).	Skyscraper Source Media
88	Traffic accident mortality rate	Number of deaths in traffic accidents per 100,000 inhabitants.	World Health Organization

In turn, the number of completed buildings and the percentage of high-rise buildings are factors that promote the formation of dense, well-structured cities. Both of these variables enter the index with a positive sign.

Finally, this year we have added an indicator that measures the rate of fatalities due to traffic accidents. From an urban planning perspective, it is essential for a city to guarantee traffic safety for both drivers and pedestrians. This means having adequate signage and pedestrian crossings, and promoting a culture of respect for traffic rules among the population. The absence of such measures and structures can lead to an increase in the number of accidents. This indicator therefore enters the index with a negative sign.

The indicators selected to evaluate a city's international profile include the presence of airports and the number of passengers they handle, the number of hotels in the city, and the number of meetings and congresses held according to the International Congress and Convention Association (ICCA). The last of these data points is particularly relevant when measuring a city's global profile, as such events tend to be held in cities with an international hotel offering, facilities suitable for holding large meetings, frequent international flight connections, and robust security measures. **Table 8** lists these indicators, together with a description of each one, the units of measurement, and the reference sources used.

In the international profile dimension, all of the indicators used enter the **CIMI** with a positive sign, since the higher their values, the higher the international profile of the city. This reflects the understanding that a city with higher indicator values is more competitive and better recognized globally.

The *Restaurant Price Index* variable compares the prices of meals and drinks in local restaurants and bars with prices in New York, which was chosen as a reference point because of its importance in the world of gastronomy. The inclusion of this index with a positive sign emphasizes the direct relationship between restaurant prices and the international culinary quality available in a city.



International profile

To advance and stand out on the global stage, cities need to strengthen their image and recognition at the international level. This entails enhancing their tourism offer through well-designed strategies, attracting foreign investment and strengthening their representation in other countries.

Although cities within a country may differ in their international profile, their global image is not entirely unrelated to the openness of the country as a whole. This dimension aims to capture and reflect these differences by measuring the international reach of each city.

Table 8. International profile indicators

No.	Indicator	Description / Unit of measurement	Source
89	Number of passengers per airport	Annual number of passengers per airport in thousands.	Euromonitor
90	Hotels	Number of hotels per capita.	OpenStreetMap
91	Restaurant Price Index	The Restaurant Price Index compares the price of meals and drinks in restaurants and bars in a city to prices in New York City.	Numbeo
92	McDonald's	Number of McDonald's outlets in the city.	OpenStreetMap
93	Number of congresses and meetings	Number of international congresses and meetings held in a city.	International Congress and Convention Association

The *number of passengers per airport* indicator reflects the transit of travelers through a city's airport (measured in thousands of passengers), which can give an idea of its connectivity and attractiveness as a tourist or business destination.

The *hotels* indicator refers to the number of hotel establishments in relation to the population, providing an insight into the tourism infrastructure available.

The *McDonald's* indicator shows the number of outlets of the international fast food chain in a city, which could reflect a certain homogeneity of the gastronomic offer or the tastes and preferences of urban consumers.

Finally, the *number of congresses and meetings* indicator measures the number of international events of this kind held in a city, which is indicative of its role as a business or academic center.

Together, these indicators provide a comprehensive view of a city's international profile and attractiveness.

cally lagging city may find that it has outdated production systems that will negatively affect its competitiveness in the absence of external support. This, in turn, limits its consumption and investment potential and can lead to a decline in its labor productivity.

The indicators used to provide a detailed view of the technological performance and growth of the cities analyzed are listed in **Table 9**, together with the units of measurement and the sources used in each case.

The social media platforms indicator combines the number of X and LinkedIn users. This metric, which enters the CIMI with a positive sign, reflects the level of interaction and technological adaptability of citizens in a given city.

Metrics that assess the percentage of households with access to the Internet and mobile telephony, as well as fixed-line and broadband subscriptions, serve as measures of a city's technological progress. These indicators reflect the ease with which households and businesses can participate in and benefit from the digital economy.

The Innovation Cities Index (ICI) is determined by analyzing various components that drive technological innovation in cities, including areas such as health, the economy, and demographics. In the contemporary era, this index has become an essential tool for assessing the innovative dynamism of cities. Methodologically, the ICI is based on three factors: cultural assets, human infrastructure, and networked markets.

In turn, the total number of WiFi hotspots reflects the ability of citizens to connect on the go. This metric is indicative of a city's commitment to promoting and facilitating constant connectivity for its residents.

Finally, the percentage of households with telephone service or personal computers, a city's Internet speed, and the Web index are indicators that reflect the level of technology adoption in the city.

Every indicator in this category is closely linked to technology and all of them enter the index with a positive value.



Technology

Information and communication technologies (ICT) are a key pillar in the structure of contemporary cities and are essential for a society that aspires to be recognized as *smart*.

In the **CIMI**, the technology dimension reflects a society's current level of prosperity and serves as a barometer of its potential to improve the quality of life of its citizens. Technological progress gives cities the capacity to be sustainable in the long term by strengthening or expanding the competitive advantages of their structure of production and improving the quality of employment. A city that fails to keep pace with technological advances will face significant challenges compared to its peers, with implications in critical areas such as security, education, and health, which are essential components of social sustainability. In addition, from an economic perspective, a technologi-

Table 9. Technology indicators

No.	Indicator	Description / Unit of measurement	Source
94	Mobile broadband	Active mobile broadband subscriptions.	International Telecommunication Union
95	Innovation Cities Index (ICI)	This index is a ranking of leading cities in innovation.	2thinknow
96	Internet	Percentage of households with Internet access.	Euromonitor
97	Computers/PCs	Percentage of households with a personal computer.	Euromonitor
98	Mobile phone penetration rate	Number of mobile phones per 100 inhabitants.	International Telecommunication Union
99	Social media platforms	Registered X users in a city (in thousands of individuals) + number of registered LinkedIn members in the city.	X and LinkedIn
100	Broadband subscriptions	Broadband subscriptions per 100 inhabitants.	International Telecommunication Union
101	Telephony	Percentage of households with some kind of telephone service.	Euromonitor
102	Internet speed	Fixed-line Internet speed in megabytes per second by country.	World Population Review
103	Mobile speed	Mobile speed in megabytes per second (country).	World Population Review
104	WiFi hotspots	This variable represents options for connecting to the Internet in a city.	WiFi Map app

Limitations of the indicators

Developing an index with the geographic coverage and broad dimensions offered by the **CIMI** poses significant challenges. The results presented should be treated with caution due to a number of limitations, including data availability and comparability. Although we would prefer to rely only on data from primary and directly comparable sources, we are often forced to use secondary sources that provide data that is comparable across cities, but may not be as precise as desired. In addition, the set of variables selected may not fully reflect the complexity of each dimension, and sometimes data is not available.

A series of measures have been taken to mitigate these limitations. For example, we have used extrapolation techniques for indicators with incomplete data. In cases where data was not available at the city level, but other data was available at the national level, we assigned values to cities based on other relevant variables. When data was not available for certain cities or time periods (and no data was available at the country level), we resorted to statistical clustering techniques. Details on these methodologies can be found in the supplementary report [IESE Cities in Motion Index: Metodología y modelización, Índice 2014](#). A list of all the indicators used can be found in [Appendix 1](#).

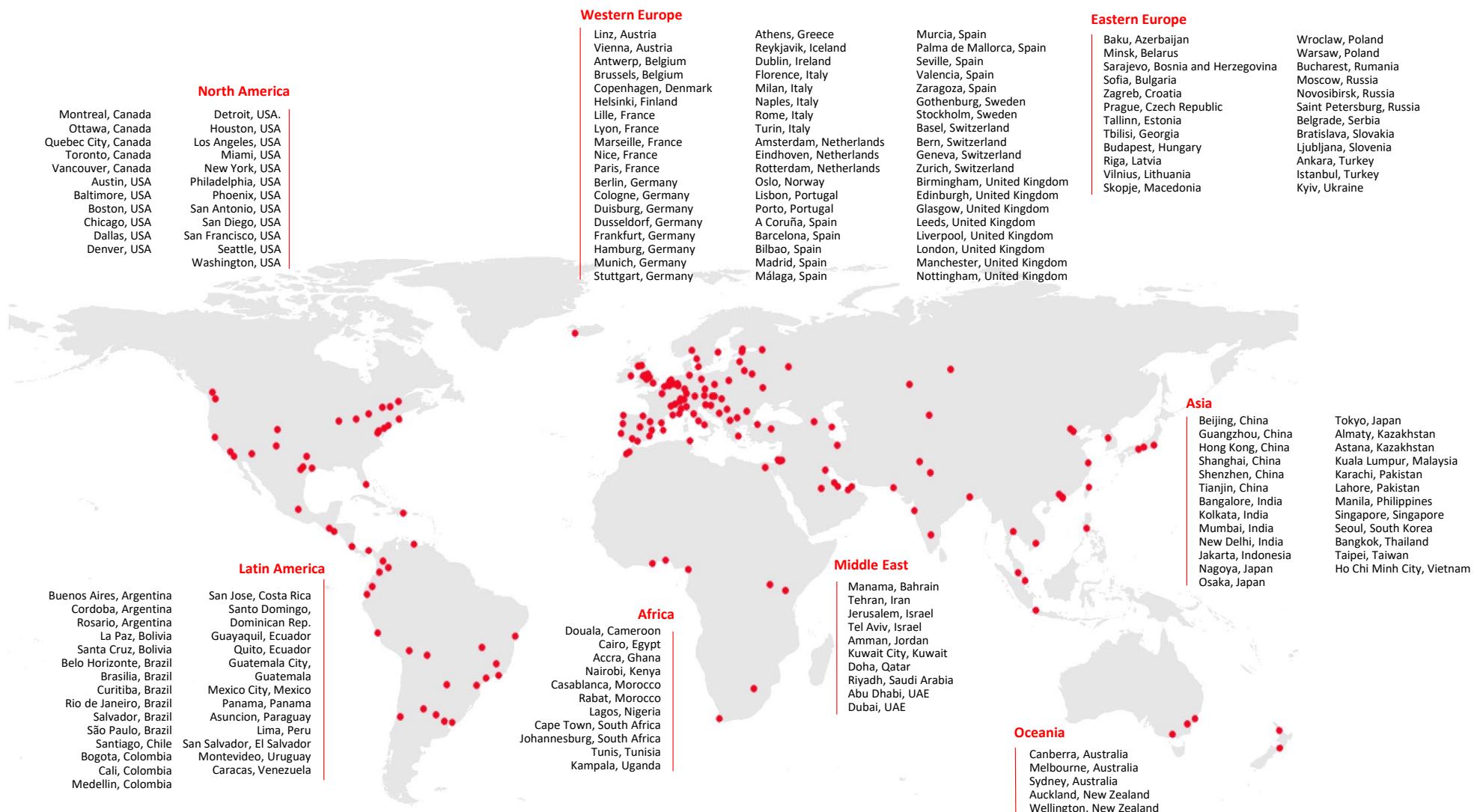
An additional factor that has affected this year's report is the updating of data by various sources. These revisions reflect changes in forecasts due to circumstances and events such as the post-pandemic situation and recent armed conflicts, starting with the Russia-Ukraine war in 2022. At the same time, some sources have made adjustments this year based on changes in previous periods, leading to significant changes in rankings, especially in certain dimensions. For all these reasons, we stress that different editions of the **CIMI** should not be compared.

At the **CIMI** platform, we are committed to improving the accuracy and completeness of our indicators, and we encourage cities to facilitate access to their data, the study of which is essential to the continuous improvement of many aspects of cities.

Geographic coverage

For the calculation of the **CIMI**, 183 cities have been included, 85 of which are national capitals. Their geographic distribution is shown in [Figure 3](#) below.

Figure 3. Geographic distribution of cities included in the index





Cities in Motion. *Ranking*

The **CIMI** is a composite indicator—a function based on the sub-indicators available.

To construct this composite indicator, we employed a weighted aggregation model comprising sub-indicators for each of the nine key dimensions of the **CIMI** theoretical model. These dimensions—chosen to reflect the reality of cities based on sustainability and quality of life, now and in the future—are: governance, urban planning, technology, environment, international profile, social cohesion, human capital, mobility and transportation, and economy.

The sub-indicators for each dimension are themselves composite indicators, formed by weighted aggregations of selected indicators covering various points related to each dimension.

Given the nature of the indicator and the availability of data, we used the DP2 technique to calculate the **CIMI**. This internationally recognized technique focuses on quantifying the deviation of each indicator's value from a reference point and addresses the interdependence among sub-indicators to avoid over-sensitivity to changes in certain values. This correction involves applying a uniform factor to each sub-indicator, based on the assumption of a linear dependency between them.

The factors are determined based on the complement of the coefficient of determination (R^2) of each indicator in relation to the others. The order and relative weight

of the indicators for each dimension in the **CIMI** are: economy (1), human capital (0.392), international profile (0.581), urban planning (0.575), environment (0.386), technology (0.615), governance (0.714), social cohesion (0.592), and mobility and transportation (0.473).

While the order in which the composite index for each dimension is incorporated does influence the **CIMI** value, sensitivity studies carried out indicate that there are no significant variations in the index. For further details on the methodology used, see the supplementary publication [IESE Cities in Motion Index: Metodología y modelización, Índice 2014](#) (mentioned above).

Table 10 shows the **CIMI** ranking of the cities and their index value. The cities are also grouped according to their performance based on the composite indicator value. The cities are classified by performance as follows: high (H) for cities with an index value over 90; relatively high (RH) for those in the 60–90 range; medium (M) for those in the 45–60 range; and low (L) for cities with an index value below 45.

In this edition of the **CIMI**, the performance of 24.04% (44) of the cities is classified as H or RH, and the top three cities are London, New York, and Paris (in that order). The performance of 36.61% (67) of the cities is classified as M, and those classified as L account for 37.71% (69) of the selected cities. Finally, three cities (1.64%) score very low this year.

Table 10. Ranking of cities

Ranking	City	Performance	ICIM	Ranking	City	Performance	ICIM
1	London - United Kingdom	A	100,00	62	Liverpool - United Kingdom	M	57,49
2	New York - USA	A	97,11	63	Warsaw - Poland	M	57,44
3	Paris - France	RA	84,29	64	Milan - Italy	M	57,42
4	Tokyo - Japan	RA	77,74	65	Nottingham - United Kingdom	M	56,93
5	Berlin - Germany	RA	75,66	66	Glasgow - United Kingdom	M	56,62
6	Singapore - Singapore	RA	72,65	67	Quebec City - Canada	M	56,22
7	Oslo - Norway	RA	72,55	68	Brussels - Belgium	M	56,04
8	Amsterdam - Netherlands	RA	72,21	69	Rome - Italy	M	55,81
9	San Francisco - USA	RA	70,77	70	Phoenix - USA	M	55,75
10	Chicago - USA	RA	70,76	71	Leeds - United Kingdom	M	55,72
11	Copenhagen - Denmark	RA	70,68	72	Tallinn - Estonia	M	55,04
12	Zurich - Switzerland	RA	69,45	73	Baltimore - USA	M	54,73
13	Seoul - South Korea	RA	69,21	74	San Antonio - USA	M	54,61
14	Munich - Germany	RA	68,91	75	Detroit - USA	M	54,53
15	Boston - USA	RA	68,28	76	Lisbon - Portugal	M	54,44
16	Hamburg - Germany	RA	67,92	77	Valencia - Spain	M	54,37
17	Washington - USA	RA	67,30	78	Las Vegas - USA	M	53,91
18	Stockholm - Sweden	RA	66,64	79	Marseille - France	M	53,79
19	Melbourne - Australia	RA	66,31	80	Tel Aviv - Israel	M	53,29
20	Madrid - Spain	RA	66,06	81	Dubai - United Arab Emirates	M	53,28
21	Beijing - China	RA	65,88	82	Antwerp - Belgium	M	53,03
22	Vienna - Austria	RA	65,86	83	Nice - France	M	52,69
23	Reykjavik - Iceland	RA	65,48	84	Osaka - Japan	M	52,39
24	Basel - Switzerland	RA	65,14	85	Linz - Austria	M	51,81
25	Rotterdam - Netherlands	RA	65,09	86	Nagoya - Japan	M	51,80
26	Helsinki - Finland	RA	64,68	87	Budapest - Hungary	M	51,22
27	Taipei - Taiwan	RA	64,60	88	Lille - France	M	50,96
28	Sydney - Australia	RA	64,32	89	Duisburg - Germany	M	50,85
29	Barcelona - Spain	RA	64,17	90	Málaga - Spain	M	50,27
30	Bern - Switzerland	RA	64,01	91	Santiago - Chile	M	49,96
31	Seattle - USA	RA	63,28	92	Riga - Latvia	M	49,73
32	Edinburgh - United Kingdom	RA	63,17	93	Istanbul - Turkey	M	49,71
33	Toronto - Canada	RA	62,90	94	Seville - Spain	M	49,62
34	Dublin - Ireland	RA	62,49	95	Vilnius - Lithuania	M	49,43
35	Frankfurt - Germany	RA	62,43	96	Zaragoza - Spain	M	49,42
36	Manchester - United Kingdom	RA	61,35	97	Moscow - Russia	M	49,14
37	Hong Kong - China	RA	61,30	98	Palma de Mallorca - Spain	M	48,59
38	Canberra - Australia	RA	61,12	99	Wroclaw - Poland	M	48,57
39	Los Angeles - USA	RA	61,08	100	Turin - Italy	M	48,49
40	Geneva - Switzerland	RA	61,03	101	Bratislava - Slovakia	M	48,01
41	Eindhoven - Netherlands	RA	60,72	102	Ljubljana - Slovenia	M	47,91
42	Ottawa - Canada	RA	60,37	103	Bilbao - Spain	M	47,66
43	Dallas - USA	RA	60,36	104	A Coruña - Spain	M	47,41
44	Shanghai - China	RA	60,18	105	Porto - Portugal	M	46,85
45	Austin - USA	M	59,99	106	Zagreb - Croatia	M	46,82
46	Gothenburg - Sweden	M	59,95	107	Kuala Lumpur - Malaysia	M	46,81
47	San Diego - USA	M	59,83	108	Shenzhen - China	M	45,92
48	Houston - USA	M	59,73	109	Florence - Italy	M	45,72
49	Miami - USA	M	59,46	110	Murcia - Spain	M	45,27
50	Prague - Czech Republic	M	59,23	111	Athens - Greece	M	45,06
51	Denver - USA	M	59,16	112	Jerusalem - Israel	B	44,90
52	Cologne - Germany	M	59,15	113	Sofia - Bulgaria	B	44,70
53	Montreal - Canada	M	59,10	114	Bucharest - Romania	B	44,38
54	Wellington - New Zealand	M	59,06	115	Buenos Aires - Argentina	B	43,67
55	Lyon - France	M	59,00	116	Abu Dhabi - United Arab Emirates	B	43,64
56	Vancouver - Canada	M	58,80	117	Guangzhou - China	B	43,50
57	Düsseldorf - Germany	M	58,74	118	Kyiv - Ukraine	B	42,09
58	Stuttgart - Germany	M	58,70	119	Montevideo - Uruguay	B	40,78
59	Birmingham - United Kingdom	M	58,13	120	Mexico City - Mexico	B	40,72
60	Auckland - New Zealand	M	57,93	121	Doha - Qatar	B	40,20
61	Philadelphia - USA	M	57,81	122	Bangkok - Thailand	B	40,02

Table 10. Ranking of cities (continued)

Ranking	City	Performance	ICIM	Ranking	City	Performance	ICIM
123	Naples - Italy	B	40,00	156	Brasilia - Brazil	B	27,47
124	Ankara - Turkey	B	39,16	157	Quito - Ecuador	B	27,02
125	Saint Petersburg - Russia	B	39,11	158	Johannesburg - South Africa	B	26,67
126	Tbilisi - Georgia	B	39,01	159	Sarajevo - Bosnia-Herzegovina	B	25,73
127	Panama - Panama	B	38,31	160	San Jose - Costa Rica	B	25,47
128	São Paulo - Brazil	B	37,81	161	Belo Horizonte - Brazil	B	25,16
129	Belgrade - Serbia	B	37,66	162	Cairo - Egypt	B	24,19
130	Ho Chi Minh City - Vietnam	B	36,58	163	anto Domingo - Dominican Republic	B	23,90
131	Bogota - Colombia	B	35,62	164	Salvador - Brazil	B	23,89
132	Minsk - Belarus	B	35,19	165	San Salvador - El Salvador	B	23,52
133	Riyadh - Saudi Arabia	B	34,74	166	Asuncion - Paraguay	B	23,26
134	Rio de Janeiro - Brazil	B	33,82	167	Casablanca - Morocco	B	23,05
135	Jakarta - Indonesia	B	33,37	168	Tehran - Iran	B	23,02
136	Almaty - Kazakhstan	B	33,31	169	Guayaquil - Ecuador	B	22,61
137	Medellin - Colombia	B	33,21	170	La Paz - Bolivia	B	22,12
138	Kuwait City - Kuwait	B	32,93	171	Rabat - Morocco	B	22,09
139	Rosario - Argentina	B	32,47	172	Santa Cruz - Bolivia	B	22,04
140	Baku - Azerbaijan	B	31,92	173	Nairobi - Kenya	B	22,01
141	Cape Town - South Africa	B	31,12	174	Kolkata - India	B	21,13
142	Manama - Bahrain	B	31,00	175	Manila - Philippines	B	20,36
143	Astana - Kazakhstan	B	30,86	176	Guatemala City - Guatemala	B	18,12
144	Lima - Peru	B	30,33	177	Douala - Cameroon	B	17,02
145	Bangalore - India	B	29,86	178	Accra - Ghana	B	14,75
146	Tianjin - China	B	29,83	179	Kampala - Uganda	B	13,65
147	Cordoba - Argentina	B	29,78	180	Lahore - Pakistan	B	13,18
148	Curitiba - Brazil	B	29,52	181	Karachi - Pakistan	MB	10,90
149	Delhi - India	B	29,12	182	Caracas - Venezuela	MB	10,61
150	Skopje - Macedonia	B	29,02	183	Lagos - Nigeria	MB	4,77
151	Cali - Colombia	B	28,99				
152	Mumbai - India	B	28,90				
153	Novosibirsk - Russia	B	28,55				
154	Tunis - Tunisia	B	27,76				
155	Amman - Jordan	B	27,47				

The category of cities with high or relatively high performance consists mostly of European and North American cities and capitals, while the low-performance category is mostly made up of African, Middle Eastern and Latin American cities.

Compared to previous years, there has been a decrease in the proportion of high-performing cities. Factors such as the post-pandemic situation and recent armed conflicts are likely to have influenced these results, reflecting differences in the adaptive capacity and resources available to cities to deal with various adversities.



Cities in Motion: ranking by dimension

This section presents a ranking of cities across the dimensions that make up the index, including each city's overall position and its rank in each dimension. For a clearer visual interpretation, dark green shades are used for the top positions in the **CIMI** ranking, while dark red shades indicate cities in lower positions. Yellow shades are used for intermediate positions.

London tops the ranking, cementing its status as a highly developed and innovative metropolis. The city excels in key areas such as global influence, quality of human capital, government effectiveness, urban planning, and mobility systems, ranking in the top four across all of these dimensions. However, the UK capital faces challenges in the areas of social cohesion and environmental sustainability, where it ranks 36th and 24th respectively. Despite not being a leader in these areas, the city is on a trajectory of steady improvement year after year, reflected in its progressive initiatives to make London a fully integrated smart city and enhance its global standing.

New York also occupies a prominent position, ranking second overall. The city stands out for its strong economy, excellent human capital, advanced urban planning, and mobility and transportation systems, where it ranks first, second, second, and third, respectively. Despite these achievements, the metropolis faces significant challenges in terms of social cohesion and environmen-

tal sustainability, categories in which it ranks 112th and 105th, respectively. However, it has well-defined action plans to make progress and improve in these critical areas in the future.

Paris has achieved an impressive third place in the global ranking. The City of Light demonstrates its strengths in international influence, quality of human capital, and economic performance, where it ranks second, fourth, and 11th, respectively. The French capital also stands out for its excellent urban planning and efficient mobility and transportation systems, confirming its status as an outstanding metropolis in several key areas.

Table 11 shows the rank, overall and by dimension, of the 183 cities included in the index. This table is very important when it comes to analyzing the results as it shows the relative position of each city in each of the dimensions.

Figure 2 (below the table) shows the location of the cities on a world map. The dot colors indicate where each city stands in the ranking (as explained above).

Table 11. Ranking by dimension

City	Economy	Human Capital	Social Cohesion	Environment	Governance	Urban Planning	International Profile	Technology	Mobility and Transportation	Cities in Motion
London - United Kingdom	4	1	36	24	3	1	1	53	4	1
New York - USA	1	2	112	105	8	2	3	10	3	2
Paris - France	11	3	71	53	16	13	2	18	6	3
Tokyo - Japan	3	16	50	34	10	43	16	9	49	4
Berlin - Germany	68	5	27	10	2	4	12	42	9	5
Singapore - Singapore	19	25	31	80	23	28	4	4	46	6
Oslo - Norway	18	29	17	2	15	47	37	27	15	7
Amsterdam - Netherlands	27	33	42	21	41	5	14	8	28	8
San Francisco - USA	2	30	108	142	54	18	34	5	145	9
Chicago - USA	7	6	93	118	31	17	6	14	33	10
Copenhagen - Denmark	28	48	6	3	18	39	25	22	19	11
Zurich - Switzerland	15	31	7	32	21	61	31	19	54	12
Seoul - South Korea	16	8	80	77	11	50	32	34	20	13
Munich - Germany	43	44	9	8	52	11	36	41	13	14
Boston - USA	10	4	66	121	17	34	44	6	100	15
Hamburg - Germany	75	18	35	13	36	3	59	58	17	16
Washington - USA	14	11	76	123	9	9	41	13	61	17
Stockholm - Sweden	39	50	49	6	34	60	40	17	14	18
Melbourne - Australia	32	9	16	48	14	76	13	57	113	19
Madrid - Spain	50	49	47	70	32	44	10	32	8	20
Beijing - China	8	20	129	170	45	51	22	49	1	21
Vienna - Austria	72	36	81	17	24	10	19	87	12	22
Reykjavik - Iceland	38	92	21	1	89	121	68	110	75	23
Basel - Switzerland	20	91	10	26	7	106	57	51	29	24
Rotterdam - Netherlands	41	42	37	45	46	6	92	29	18	25
Helsinki - Finland	45	60	22	9	22	16	54	61	42	26
Taipei - Taiwan	87	14	2	96	5	14	76	73	10	27
Sydney - Australia	42	13	20	46	19	87	11	48	117	28
Barcelona - Spain	81	34	84	68	25	15	15	54	11	29
Bern - Switzerland	36	71	8	28	1	77	79	25	60	30
Seattle - USA	9	23	70	106	40	29	46	30	107	31
Edinburgh - United Kingdom	51	17	1	12	62	83	50	60	96	32
Toronto - Canada	30	40	57	42	42	7	45	74	110	33

Table 11. Ranking by dimension (continued)

City	Economy	Human Capital	Social Cohesion	Environment	Governance	Urban Planning	International Profile	Technology	Mobility and Transportation	Cities in Motion
Dublin - Ireland	12	95	40	47	76	67	30	107	76	34
Frankfurt - Germany	64	39	32	11	67	36	47	64	25	35
Manchester - United Kingdom	48	66	38	41	73	22	62	63	38	36
Hong Kong - China	85	26	162	95	27	41	8	1	50	37
Canberra - Australia	67	15	3	7	20	115	112	72	66	38
Los Angeles - USA	5	7	72	162	12	52	7	7	181	39
Geneva - Switzerland	25	106	26	43	6	109	48	35	103	40
Eindhoven - Netherlands	44	109	11	20	59	27	113	36	47	41
Ottawa - Canada	58	61	5	15	30	24	88	115	64	42
Dallas - USA	13	41	79	114	58	117	24	37	73	43
Shanghai - China	62	10	74	161	121	73	23	56	2	44
Austin - USA	17	28	69	113	51	23	83	24	108	45
Gothenburg - Sweden	53	72	44	4	72	54	90	39	53	46
San Diego - USA	21	27	65	124	13	55	53	31	105	47
Houston - USA	6	46	86	152	53	56	28	16	134	48
Miami - USA	23	19	92	154	48	79	9	38	101	49
Prague - Czech Republic	113	32	45	14	69	75	33	43	45	50
Denver - USA	22	35	85	130	60	58	39	11	92	51
Cologne - Germany	94	57	30	30	57	45	84	67	22	52
Montreal - Canada	56	53	24	38	86	20	38	101	112	53
Wellington - New Zealand	78	21	13	5	28	118	127	78	59	54
Lyon - France	47	52	53	57	74	37	85	50	43	55
Vancouver - Canada	57	105	25	23	97	12	52	70	91	56
Düsseldorf - Germany	83	51	34	22	82	71	89	69	21	57
Stuttgart - Germany	79	54	19	25	119	32	109	75	31	58
Birmingham - United Kingdom	52	65	28	37	68	78	106	95	37	59
Auckland - New Zealand	73	58	39	35	38	64	58	85	86	60
Philadelphia - USA	24	12	95	132	44	68	69	15	114	61
Liverpool - United Kingdom	61	68	15	27	66	85	91	68	67	62
Warsaw - Poland	88	69	111	65	4	21	66	81	34	63
Milan - Italy	71	22	91	91	95	66	26	102	24	64
Nottingham - United Kingdom	60	64	14	36	79	72	119	76	74	65
Glasgow - United Kingdom	82	62	12	29	71	65	72	83	109	66

Table 11. Ranking by dimension (continued)

City	Economy	Human Capital	Social Cohesion	Environment	Governance	Urban Planning	International Profile	Technology	Mobility and Transportation	Cities in Motion
Quebec City - Canada	70	78	4	18	49	53	122	116	106	67
Brussels - Belgium	76	108	87	72	43	33	56	86	23	68
Rome - Italy	84	70	104	92	26	63	18	112	35	69
Phoenix - USA	31	59	88	135	55	94	43	23	72	70
Leeds - United Kingdom	55	67	18	44	77	100	114	103	70	71
Tallinn - Estonia	111	79	23	33	85	35	104	47	68	72
Baltimore - USA	34	63	117	112	37	31	86	44	85	73
San Antonio - USA	35	24	115	107	47	81	81	40	102	74
Detroit - USA	26	38	124	145	61	30	74	20	125	75
Lisbon - Portugal	91	116	75	63	93	80	20	55	63	76
Valencia - Spain	99	104	48	55	39	70	102	52	32	77
Las Vegas - USA	29	56	125	122	50	62	60	33	115	78
Marseille - France	49	107	56	74	83	99	98	89	48	79
Tel Aviv - Israel	33	129	33	84	80	91	65	84	116	80
Dubai - United Arab Emirates	40	140	29	178	56	8	17	2	121	81
Antwerp - Belgium	90	75	51	73	105	57	107	118	40	82
Nice - France	63	112	83	58	96	113	73	12	93	83
Osaka - Japan	77	110	94	39	65	97	115	21	87	84
Linz - Austria	96	100	59	19	125	90	132	131	27	85
Nagoya - Japan	59	120	62	31	118	114	150	28	78	86
Budapest - Hungary	116	37	121	79	88	42	63	119	56	87
Lille - France	69	118	52	49	91	104	128	98	81	88
Duisburg - Germany	133	83	41	16	84	123	120	91	62	89
Málaga - Spain	123	74	78	59	106	88	118	104	30	90
Santiago - Chile	137	76	109	76	29	96	64	97	44	91
Riga - Latvia	114	55	103	40	132	38	130	134	58	92
Istanbul - Turkey	120	82	145	128	94	74	5	46	98	93
Seville - Spain	117	102	77	60	102	69	129	109	39	94
Vilnius - Lithuania	98	73	128	54	113	48	135	113	77	95
Zaragoza - Spain	112	93	60	62	127	89	145	80	41	96
Moscow - Russia	135	45	138	143	104	49	35	82	26	97
Palma de Mallorca - Spain	128	98	58	66	114	82	87	79	99	98
Wroclaw - Poland	104	80	122	82	78	25	153	105	84	99

Table 11. Ranking by dimension (continued)

Ciudad	Economy	Human Capital	Social Cohesion	Environment	Governance	Urban Planning	International Profile	Technology	Mobility and Transportation	Cities in Motion
Turin - Italy	119	84	96	81	128	40	121	127	36	100
Bratislava - Slovakia	141	89	54	56	99	59	137	129	65	101
Ljubljana - Slovenia	93	103	63	52	124	98	116	120	118	102
Bilbao - Spain	105	135	61	61	107	93	133	92	55	103
A Coruña - Spain	125	121	67	50	112	84	157	59	80	104
Porto - Portugal	103	142	55	64	87	133	103	71	71	105
Zagreb - Croatia	106	85	107	75	63	119	125	99	111	106
Kuala Lumpur - Malaysia	37	117	68	148	152	149	55	121	79	107
Shenzhen - China	92	144	134	159	149	101	100	62	5	108
Florence - Italy	130	81	119	86	130	102	96	117	51	109
Murcia - Spain	122	124	64	67	133	95	154	111	82	110
Athens - Greece	95	90	178	98	138	116	49	45	57	111
Jerusalem - Israel	65	145	73	83	70	130	67	132	143	112
Sofia - Bulgaria	129	88	114	93	75	138	136	93	52	113
Bucharest - Romania	110	96	118	90	151	105	94	106	97	114
Buenos Aires - Argentina	171	47	141	85	35	19	29	125	158	115
Abu Dhabi - United Arab Emirates	54	162	46	176	92	86	108	3	104	116
Guangzhou - China	115	136	101	160	131	125	82	66	7	117
Kyiv - Ukraine	107	101	174	100	64	26	141	128	129	118
Montevideo - Uruguay	143	131	106	51	111	122	131	123	124	119
Mexico City - Mexico	121	43	120	172	90	46	42	148	144	120
Doha - Qatar	74	179	43	164	158	92	80	26	95	121
Bangkok - Thailand	118	114	99	151	116	177	21	94	160	122
Naples - Italy	134	115	137	94	155	136	105	130	89	123
Ankara - Turkey	132	111	142	111	123	127	161	126	83	124
Saint Petersburg - Russia	165	77	160	144	33	124	78	88	90	125
Tbilisi - Georgia	80	126	144	110	110	162	149	122	119	126
Panama - Panama	108	151	102	101	154	140	99	156	88	127
São Paulo - Brazil	139	127	150	127	120	110	27	96	176	128
Belgrade - Serbia	140	94	155	87	141	159	126	100	135	129
Ho Chi Minh City - Vietnam	86	146	123	138	153	153	93	136	131	130
Bogota - Colombia	102	99	173	104	109	178	71	124	175	131
Minsk - Belarus	175	97	153	78	115	134	170	135	69	132

Table 11. Ranking by dimension (continued)

Ciudad	Economy	Human Capital	Social Cohesion	Environment	Governance	Urban Planning	International Profile	Technology	Mobility and Transportation	Cities in Motion
Riyadh - Saudi Arabia	46	170	132	167	108	179	117	65	136	133
Rio de Janeiro - Brazil	160	123	172	108	98	107	75	138	150	134
Jakarta - Indonesia	124	147	90	165	81	131	61	140	177	135
Almaty - Kazakhstan	150	125	130	147	147	111	171	153	120	136
Medellin - Colombia	109	148	149	99	142	176	142	152	142	137
Kuwait City - Kuwait	100	176	98	157	157	120	148	90	148	138
Rosario - Argentina	181	86	139	69	140	103	164	141	163	139
Baku - Azerbaijan	127	134	113	149	171	157	152	139	141	140
Cape Town - South Africa	156	128	175	117	129	108	95	143	172	141
Manama - Bahrain	101	180	82	163	173	112	140	137	123	142
Astana - Kazakhstan	142	161	105	139	146	126	163	155	149	143
Lima - Peru	157	87	148	153	126	146	70	162	178	144
Bangalore - India	66	153	140	169	137	170	101	161	173	145
Tianjin - China	151	139	116	183	166	150	147	108	16	146
Cordoba - Argentina	180	137	135	71	143	132	156	145	165	147
Curitiba - Brazil	159	163	136	97	135	156	162	150	138	148
Delhi - India	97	152	167	177	122	141	51	164	133	149
Skopje - Macedonia	155	141	152	136	136	172	179	144	122	150
Cali - Colombia	126	160	151	102	139	180	180	157	169	151
Mumbai - India	89	169	165	171	148	160	97	159	128	152
Novosibirsk - Russia	169	119	164	150	117	155	176	133	137	153
Tunis - Tunisia	147	159	127	129	145	158	181	166	140	154
Amman - Jordan	146	167	157	146	100	128	134	173	161	155
Brasilia - Brazil	161	171	158	141	103	143	151	154	126	156
Quito - Ecuador	167	132	100	126	175	154	139	168	155	157
Johannesburg - South Africa	153	130	182	156	144	137	110	142	162	158
Sarajevo - Bosnia-Herzegovina	179	133	154	119	177	144	177	158	94	159
San Jose - Costa Rica	148	165	146	125	101	169	123	146	182	160
Belo Horizonte - Brazil	164	164	159	115	134	164	166	151	170	161
Cairo - Egypt	136	156	170	173	179	129	138	149	153	162
Santo Domingo - Dominican Republic	166	157	89	116	163	183	158	176	147	163
Salvador - Brazil	170	143	169	133	159	147	167	160	152	164
San Salvador - El Salvador	163	149	180	109	169	145	160	163	139	165

Table 11. Ranking by dimension (continued)

City	Economy	Human Capital	Social Cohesion	Environment	Governance	Urban Planning	International Profile	Technology	Mobility and Transportation	Cities in Motion
Asuncion - Paraguay	176	155	131	103	167	173	168	170	132	166
Casablanca - Morocco	154	175	147	158	178	165	169	114	157	167
Tehran - Iran	182	122	176	155	161	135	111	147	171	168
Guayaquil - Ecuador	173	166	97	120	168	171	159	169	154	169
La Paz - Bolivia	178	154	126	89	176	163	174	178	151	170
Rabat - Morocco	168	182	156	140	172	167	178	77	168	171
Santa Cruz - Bolivia	174	150	110	88	180	175	172	177	146	172
Nairobi - Kenya	138	172	177	137	162	152	146	167	180	173
Kolkata - India	131	168	166	166	150	148	173	174	179	174
Manila - Philippines	152	138	171	179	160	161	77	165	174	175
Guatemala City - Guatemala	162	158	161	174	164	151	144	175	167	176
Douala - Cameroon	172	174	133	131	181	168	143	183	159	177
Accra - Ghana	177	178	163	168	156	181	155	171	156	178
Kampala - Uganda	158	183	143	175	165	166	165	181	164	179
Lahore - Pakistan	144	181	168	181	183	139	183	179	130	180
Karachi - Pakistan	145	177	181	182	182	142	182	172	166	181
Caracas - Venezuela	183	113	183	134	174	182	124	180	127	182
Lagos - Nigeria	149	173	179	180	170	174	175	182	183	183

Figure 4. Map of cities in the CIMI ranking

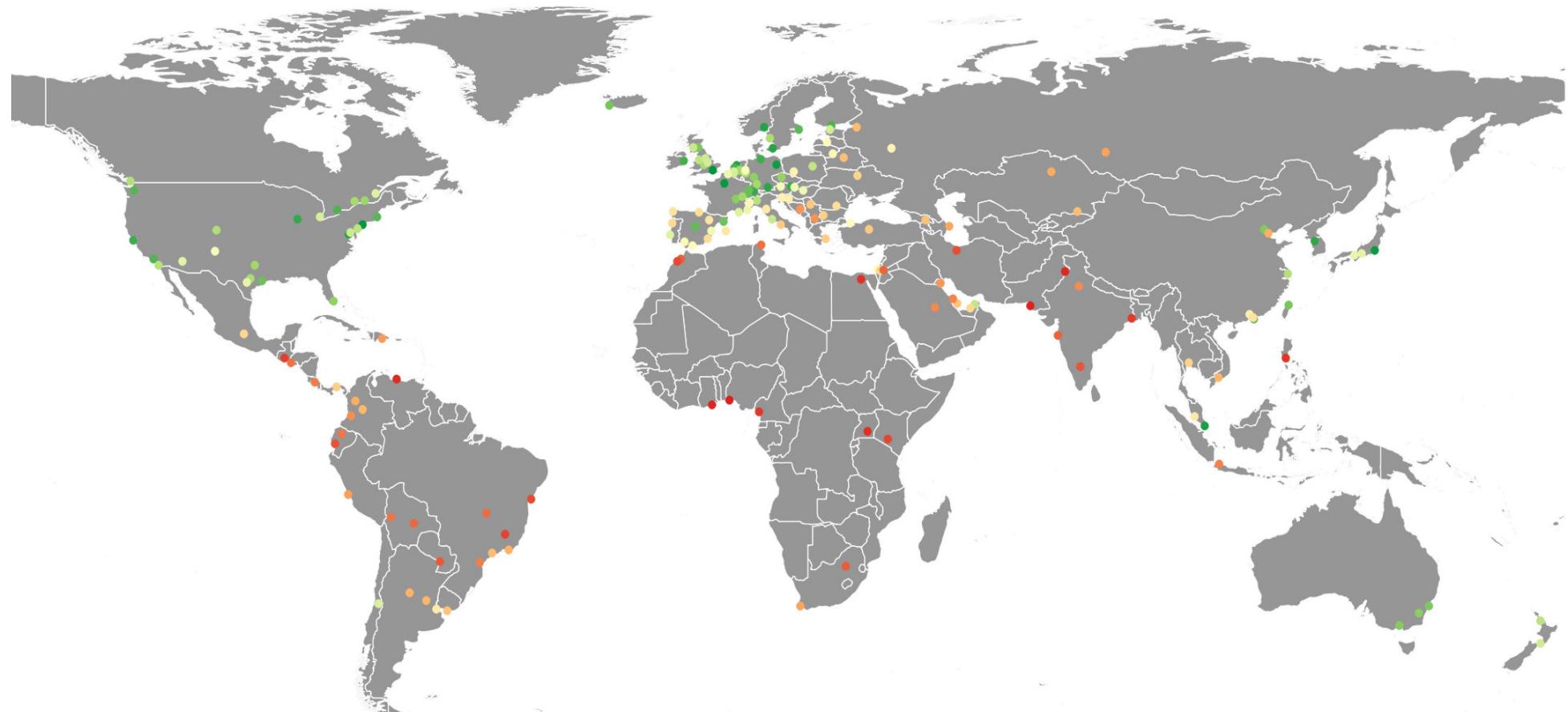


Table 12 shows the top 10 positions in the ranking for each dimension. This makes it easier to see the extent to which particular regions are represented in each dimension.

Table 12. Top 10 by dimension

ECONOMY	HUMAN CAPITAL	SOCIAL COHESION
1 New York - USA 2 San Francisco - USA 3 Tokyo - Japan 4 London - United Kingdom 5 Los Angeles - USA 6 Houston - USA 7 Chicago - USA 8 Beijing - China 9 Seattle - USA 10 Boston - USA	1 London - United Kingdom 2 New York - USA 3 Paris - France 4 Boston - USA 5 Berlin - Germany 6 Chicago - USA 7 Los Angeles - USA 8 Seoul - South Korea 9 Melbourne - Australia 10 Shanghai - China	1 Edinburgh - United Kingdom 2 Taipei - Taiwan 3 Canberra - Australia 4 Quebec City - Canada 5 Ottawa - Canada 6 Copenhagen - Denmark 7 Zurich - Switzerland 8 Bern - Switzerland 9 Munich - Germany 10 Basel - Switzerland

New York (USA) retains the top spot in this dimension, mainly due to its robust GDP and the large number of public company headquarters located in the city. While it remains a tough city to beat, others such as San Francisco and Tokyo are steadily gaining ground.

There are seven US cities in the top 10 in this dimension, largely due to their high GDP per capita and growth in this metric in recent years. The other three cities that make this year's top 10 are Tokyo, Beijing, and London. The 10 leading cities are characterized by high labor productivity, GDP per capita, and hourly wages.

It is worth noting the significant fluctuations that some cities show in this dimension over the period studied. The repercussions of the COVID-19 pandemic, together with the effects of armed conflicts, have a significant impact on growth projections and GDP for each year, and these factors are clearly reflected in city rankings in this dimension.

London (UK) leads the ranking in this dimension, thanks to its high concentration of prestigious business schools and universities ranked in the world's top 500. The city also stands out for its rich cultural offer in terms of theaters, museums, and art galleries. Four US cities, three European cities, two Asian cities and Melbourne (Oceania) make up the top 10 in this dimension.

Edinburgh (Scotland) leads this year's ranking in the social cohesion dimension. The Scottish capital stands out for its high tolerance of cultural, social, and gender diversity. According to its performance on indicators such as equal rights, inclusive policies, and public perception, the city offers an exceptionally welcoming environment for women, the LGBTQ+ community, and people of diverse ethnicities. This achievement is reflected in its progressive policies and a vibrant civil society that promotes equality and active inclusion.

The top 10 for social cohesion also includes two Canadian cities (Quebec City and Ottawa) and three Swiss cities (Zurich, Bern and Basel) that excel in this dimension. The strong performance of the three Swiss cities in this area is not surprising, given that they also top [Resonance Consultancy's](#) ranking of the most attractive European cities to live in. This achievement underscores their stable social environments, high quality of life, and inclusive policies that reflect their commitment to social well-being and harmony.

Table 12. Top 10 by dimension (continued)

 ENVIRONMENT	 GOVERNANCE	 URBAN PLANNING
1 Reykjavik - Iceland 2 Oslo - Norway 3 Copenhagen - Denmark 4 Gothenburg - Sweden 5 Wellington - New Zealand 6 Stockholm - Sweden 7 Canberra - Australia 8 Munich - Germany 9 Helsinki - Finland 10 Berlin - Germany	1 Bern - Switzerland 2 Berlin - Germany 3 London - United Kingdom 4 Warsaw - Poland 5 Taipei - Taiwan 6 Geneva - Switzerland 7 Basel - Switzerland 8 New York - USA 9 Washington - USA 10 Tokyo - Japan	1 London - United Kingdom 2 New York - USA 3 Hamburg - Germany 4 Berlin - Germany 5 Amsterdam - Netherlands 6 Rotterdam - Netherlands 7 Toronto - Canada 8 Dubai - United Arab Emirates 9 Washington - USA 10 Vienna - Austria

Reykjavik (Iceland) continues to lead in this category, followed by Oslo and Copenhagen. The Icelandic capital stands out for its low methane and carbon dioxide emissions, as well as low levels of pollution. Key to its leadership is the fact that all residents have access to potable water and that the city is highly ranked for its renewable water resources per capita. It should also be noted that all of the top 10 cities in this dimension share a common characteristic: a remarkable resilience to the challenges of climate change, as reflected in their scores on the *climate vulnerability* variable.

Bern (Switzerland) confirms its leadership in this category, closely followed by two other Swiss cities: Basel and Geneva. These urban centers stand out for their excellent scores on the Corruption Perceptions Index, high per capita capital stock, and the significant number of diplomatic missions they host. Rounding out the top 10 are two other Western European, two American and two Asian cities, all known for their economic stability and effective government policies.

London (UK) maintains its leadership in this category, while New York is a competitive second. The British metropolis boasts a robust infrastructure of electric vehicle charging stations, a progressive focus on AI projects, and impressive infrastructure characterized by a skyscraper skyline and an efficient bike-sharing service. This year, five other European cities—Hamburg, Berlin, Amsterdam, Rotterdam, and Vienna—join Toronto, Dubai, and Washington in the top 10. All of these cities are exemplary in their approach to innovative and sustainable urban development.

Table 12. Top 10 by dimension (continued)

INTERNATIONAL PROFILE	TECHNOLOGY	MOBILITY AND TRANSPORTATION
 <p>1 London - United Kingdom 2 Paris - France 3 New York - USA 4 Singapore - Singapore 5 Istanbul - Turkey 6 Chicago - USA 7 Los Angeles - USA 8 Hong Kong - China 9 Miami - USA 10 Madrid - Spain</p>	 <p>1 Hong Kong - China 2 Dubai - United Arab Emirates 3 Abu Dhabi - United Arab Emirates 4 Singapore - Singapore 5 San Francisco - USA 6 Boston - USA 7 Los Angeles - USA 8 Amsterdam - Netherlands 9 Tokyo - Japan 10 New York - USA</p>	 <p>1 Beijing - China 2 Shanghai - China 3 New York - USA 4 London - United Kingdom 5 Shenzhen - China 6 Paris - France 7 Guangzhou - China 8 Madrid - Spain 9 Berlin - Germany 10 Taipei - Taiwan</p>

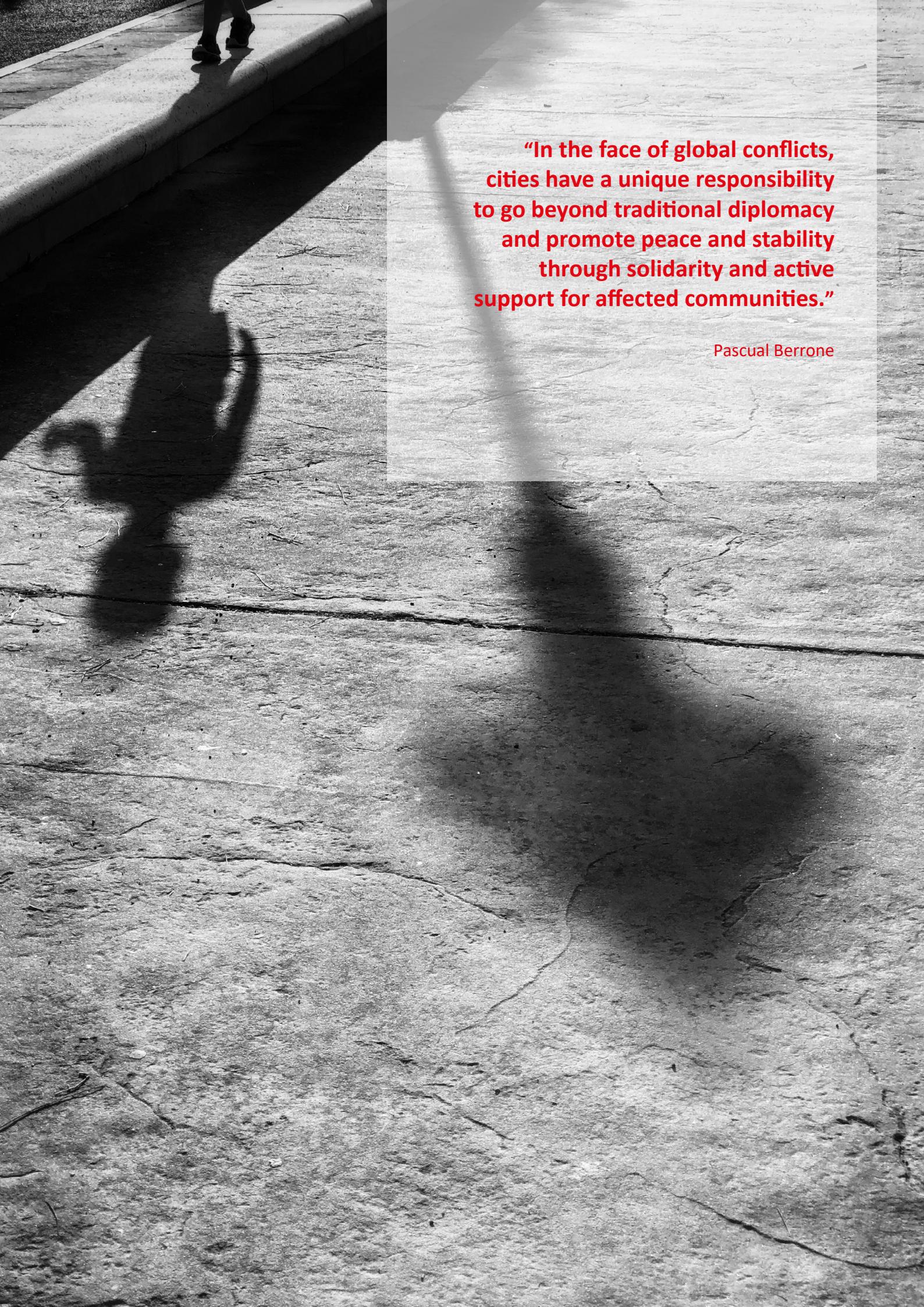
London (UK) consolidates its position as the world leader in the international profile dimension, with Paris and New York also on the podium in second and third place respectively. London's dominance is reflected in its dense hotel network and its role as host to a significant number of international meetings. The city also has the highest number of air passengers and the widest range of global air connections. The French capital, which rivals London in the number of hotels and stands out as one of the most frequently chosen cities for international congresses, is a close contender for the top spot.

This year's list of the top 10 cities with the strongest international profile includes three other US cities (Chicago, Los Angeles, and Miami) and two Asian cities (Singapore and Hong Kong), all of which are major hubs and host many global events. Rounding out the top 10 are Istanbul and Madrid, which are consolidating their status as cultural and business hot spots on the international landscape.

Hong Kong (China) tops this year's connectivity ranking, with Dubai and Abu Dhabi in second and third place, respectively. These cities are known for their advanced mobile and broadband connectivity infrastructure, complemented by an extensive public WiFi network. Hong Kong also has one of the highest rates of mobile devices per capita in the world.

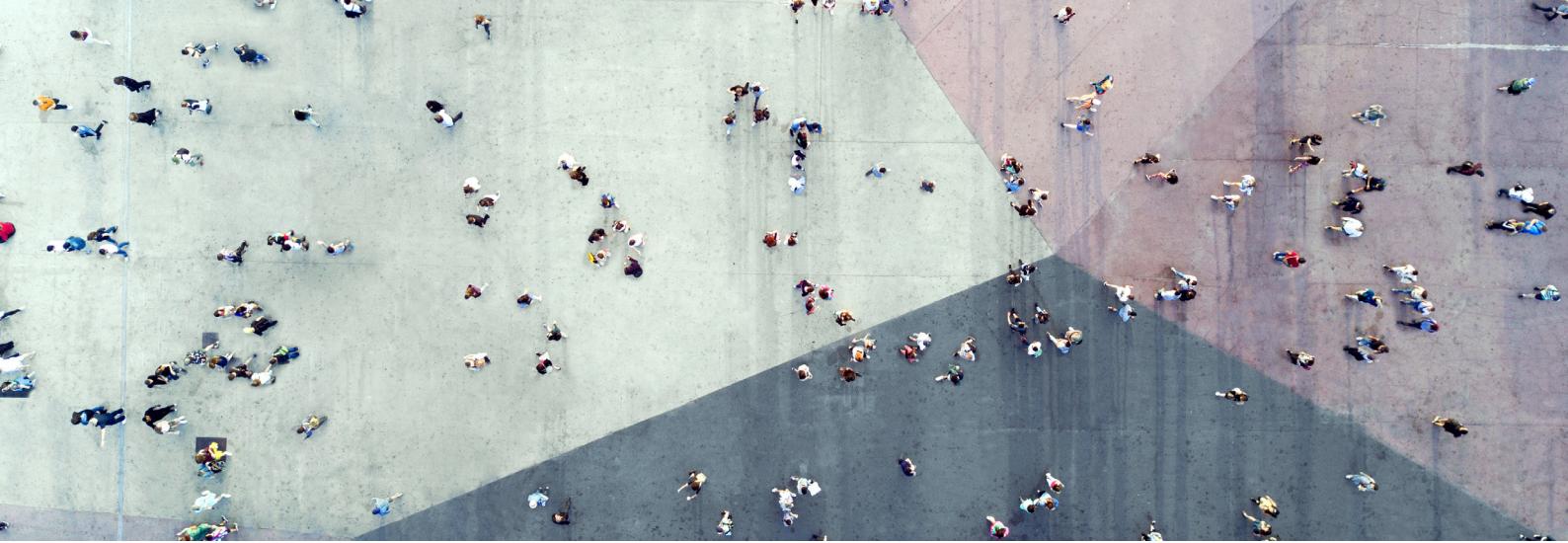
The rest of the top 10 is made up of four US cities, two Asian cities, and one European city, all recognized for their strong digital presence and technology infrastructure.

Beijing (China) rises to the top of this year's ranking thanks to its strong performance in urban mobility. This city is closely followed by Shanghai, Shenzhen and Guangzhou, which also rank in the top 10. These Chinese metropolises are known for their extensive metro networks and have recently seen a significant improvement in their scores on traffic congestion and commute time indexes. New York, ranked second, joins London, Paris, Madrid, and Berlin in a quintet of cities with exemplary transportation systems. In addition to having efficient public transportation networks and air connections, these cities also promote sustainable mobility through bike-sharing initiatives.



**“In the face of global conflicts,
cities have a unique responsibility
to go beyond traditional diplomacy
and promote peace and stability
through solidarity and active
support for affected communities.”**

Pascual Berrone



Cities in Motion: regional distribution

In this section, we provide a detailed analysis by geographic region. As noted above, one of the limitations of our index is its uneven coverage across regions, due in large part to the limited information available for cities that are not national capitals or do not have large populations. However, in each edition of the **CIMI**, we strive to expand coverage in an equitable manner as relevant new information becomes available.

Figure 5 shows the extent to which each region is represented in the ranking. As the chart shows, 31% of the cities analyzed are in Western Europe, making it the most represented region. The next most represented region is Latin America, where nearly 15% of the cities are located, followed by Asia and Eastern Europe, each at just over 13%. In the previous edition, nine cities were added to the index: two in Africa (Kampala and Accra), one in the Middle East (Tehran), Canberra (the Australian capital), and Astana in Asia. These new additions are intended to provide broader representation of the regions covered by the index.

Figure 5. Percentage of cities in each geographic region in the CIMI

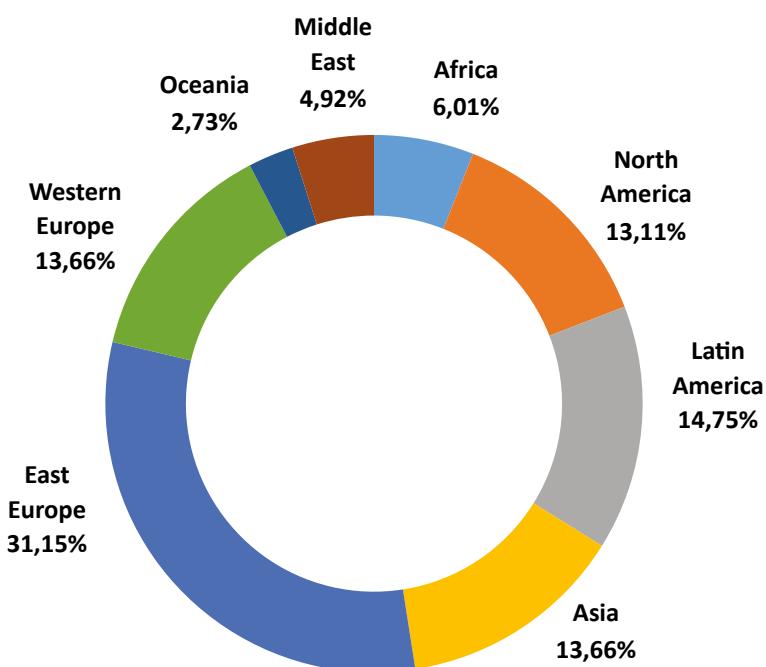
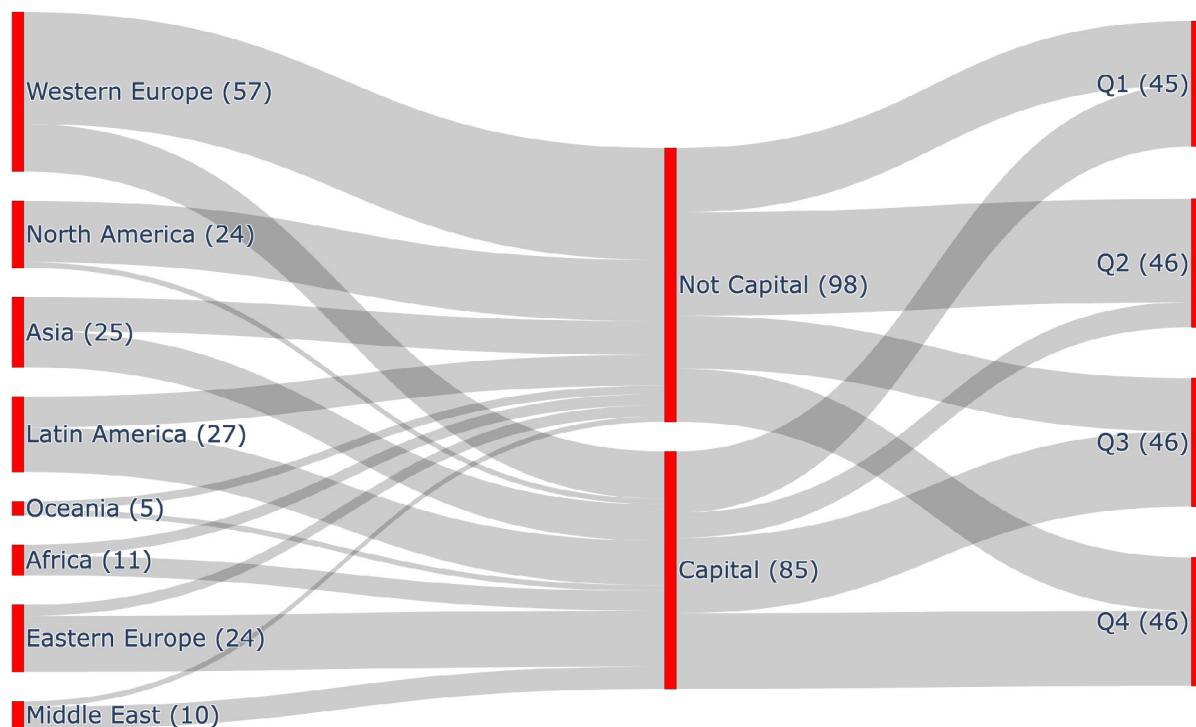


Figure 6 below shows the distribution of cities by geographic region (left), whether or not they are national capitals (center), and their position in the ranking (right). For the grouping by position in the ranking, the cities are classified as Q1, Q2, Q3 or Q4. The Q1 group consists of the top 25% of cities in the ranking, and the Q4 group consists of the worst-performing 25%. The most represented region is Western Europe, with 57 cities, 33% of those included in the ranking. It is followed by Latin America, with 27 (15% of the total), and Eastern Europe

and Asia, with 24 and 25 cities respectively (13% and 14% of the total). As the chart shows, most of the cities in Western Europe and North America are not national capitals. In contrast, most of the Eastern European and Middle Eastern cities included in the ranking are capitals.

Finally, cities that are not national capitals are most represented in the Q2 group, which is made up of cities that occupy positions 46 to 91 in the **CIMI** ranking.

Figure 6. Type of city by region and rank





“For cities to become sustainable and inclusive, digital transformation and collaboration with diverse stakeholders are essential.”

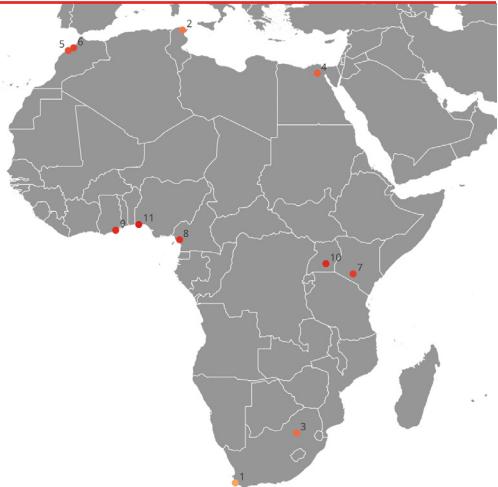
Joan Enric Ricart

Cities in Motion: regional ranking

In the following sections, we present a series of maps and tables that show the top 5 cities in each region and changes in their position in the global ranking over the last three years. The accompanying maps show the location of each city in its region. The colors indicate each city's overall rank.

Top 5 Africa

- 01- Cape Town
- 02- Tunis
- 03- Johannesburg
- 04- Cairo
- 05- Casablanca
- 06- Rabat
- 07- Nairobi
- 08- Douala
- 09- Accra
- 10- Kampala
- 11- Lagos



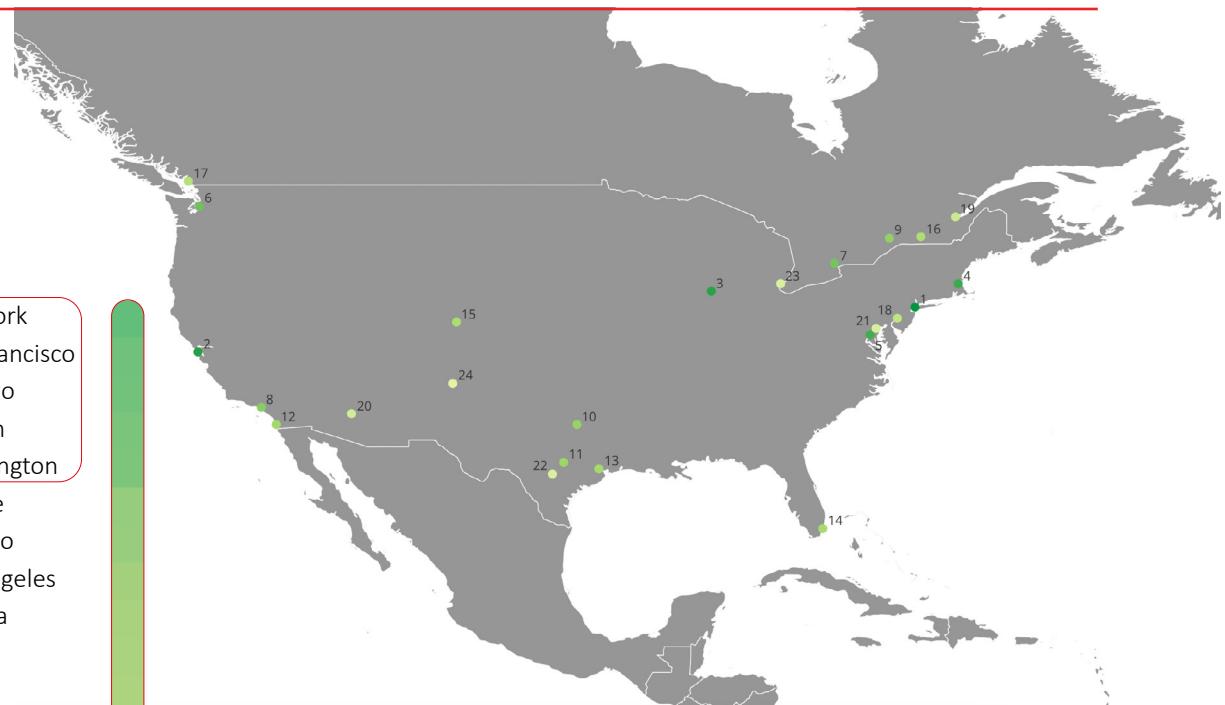
City	Regional position	Global position 2021	Global position 2022	Global position 2023
Cape Town- South Africa	1	132	139	141
Tunis - Tunisia	2	155	154	154
Johannesburg - South Africa	3	154	158	158
Cairo- Egypt	4	167	173	162
Casablanca- Morocco	5	162	162	167

Cape Town remains the top city in Africa, with Tunis a close second. Johannesburg, Cairo, and Casablanca round out the continent's top 5. However, these cities are towards the bottom of the global ranking.

Although the pandemic did not have as severe a health impact on the African continent as expected, the economic, political, and social repercussions in the region have been profound. Overcoming these adversities and promoting significant progress will require considerable effort on the part of regional leaders.

The 2023 results show a mixed picture for major African cities at the global level. Cape Town (South Africa) maintains its top position on the continent, although it has dropped slightly in the global ranking, from 132nd in 2021 to 141st in 2023. Tunis remains in the same position in the global ranking: 154th place in both 2022 and 2023. The movements within the top 5 reflect the challenges and changing dynamics that African cities face in the global context.

Top 5 North America



- 01- New York
- 02- San Francisco
- 03- Chicago
- 04- Boston
- 05- Washington
- 06- Seattle
- 07- Toronto
- 08- Los Angeles
- 09- Ottawa
- 10- Dallas
- 11- Austin
- 12- San Diego
- 13- Houston
- 14- Miami
- 15- Denver
- 16- Montreal
- 17- Vancouver
- 18- Philadelphia
- 19- Quebec City
- 20- Phoenix
- 21- Baltimore
- 22- San Antonio
- 23- Detroit
- 24- Las Vegas

City	Regional position	Global position 2021	Global position 2022	Global position 2023
New York - USA	1	2	2	2
San Francisco - USA	2	16	9	9
Chicago - USA	3	14	11	10
Boston - USA	4	28	17	15
Washington - USA	5	12	12	17

New York continues to lead the North America ranking and holds second place internationally. This year, San Francisco climbs to ninth place globally, moving ahead of Chicago, which ranks 10th. Rounding out the regional top 5 are Boston and Washington. It should be noted that there are no Canadian cities among the regional leaders this year.

As the table clearly shows, the US cities hold strong positions in the global ranking. They stand out in the economy and technology categories, securing a place in the top 15 and demonstrating their influence and leadership in these key areas. However, it should be noted that these cities rank lower in the environment category.

Top 5 Latin America



- 01- Santiago
- 02- Buenos Aires
- 03- Montevideo
- 04- Mexico City
- 05- Panama
- 06- São Paulo
- 07- Bogota
- 08- Rio de Janeiro
- 09- Medellin
- 10- Rosario
- 11- Lima
- 12- Cordoba
- 13- Curitiba
- 14- Cali

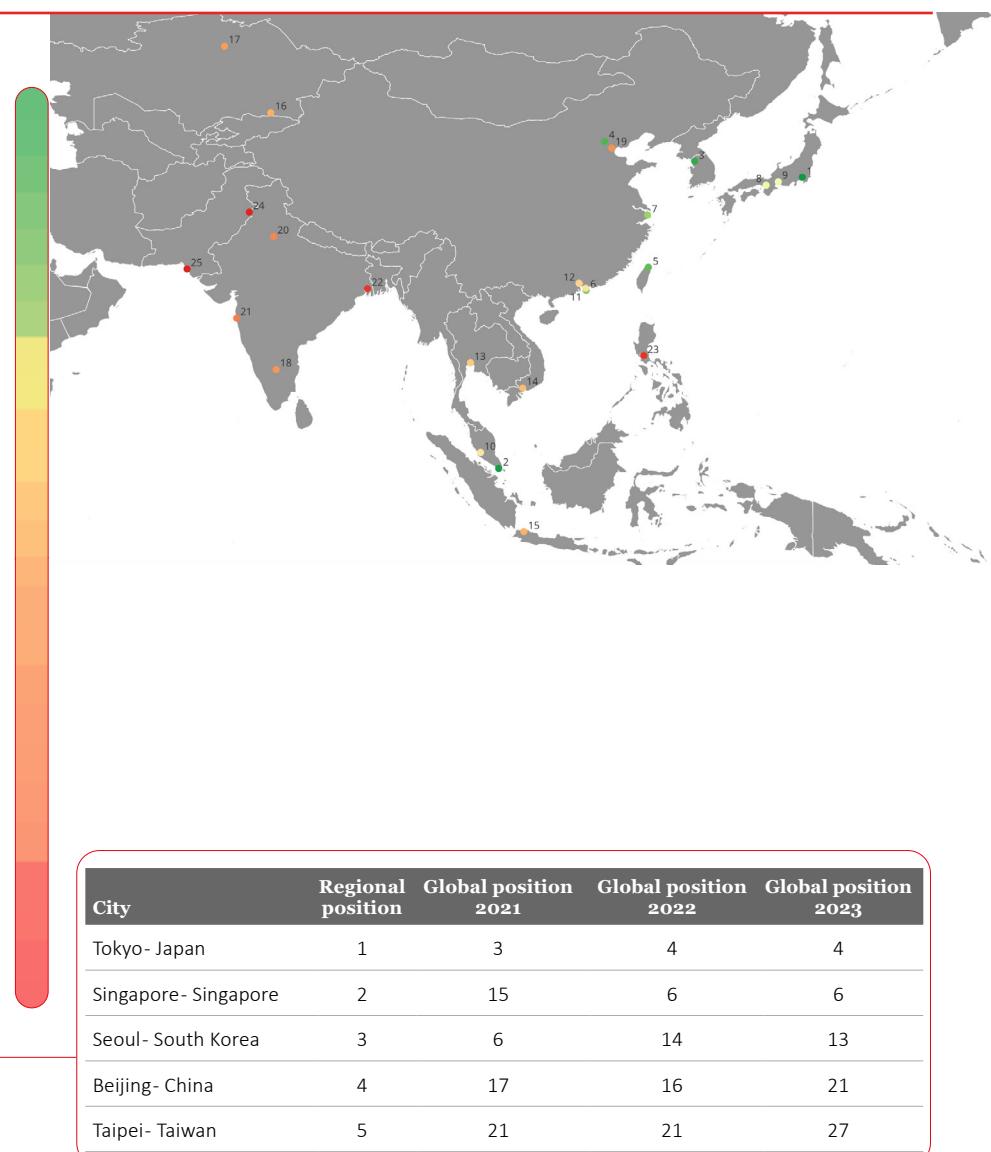
- 15- Brasilia
- 16- Quito
- 17- San Jose
- 18- Belo Horizonte
- 19- Santo Domingo
- 20- Salvador
- 21- San Salvador
- 22- Asuncion
- 23- Guayaquil
- 24- La Paz
- 25- Santa Cruz
- 26- Guatemala City
- 27- Caracas

In the current edition of the ranking, Santiago de Chile has positioned itself ahead of Buenos Aires, excelling in dimensions such as governance (29th), mobility and transportation (44th), and economy, areas in which the Argentine capital has performed less well and occupies lower positions. However, Buenos Aires stands out in urban planning (19th), international profile (29th), and development of human capital (47th). Montevideo, Mexico City, and Panama round out the top 5.

As the table shows, Latin American cities have a limited presence in the top positions of the global ranking. Given Latin America's high urban density, its metropolises face global challenges of increasing magnitude that are common to most of them. These challenges have been compounded by the international crisis caused by armed conflicts, which directly affect Latin American countries and exacerbate existing problems.

Top 5 Asia

- 01-Tokyo
- 02- Singapore
- 03- Seoul
- 04- Beijing
- 05- Taipei
- 06- Hong Kong
- 07- Shanghai
- 08- Osaka
- 09- Nagoya
- 10- Kuala Lumpur
- 11- Shenzhen
- 12- Guangzhou
- 13- Bangkok
- 14- Ho Chi Minh City
- 15- Jakarta
- 16- Almaty
- 17- Astana
- 18- Bangalore
- 19- Tianjin
- 20- Delhi
- 21- Mumbai
- 22- Kolkata
- 23- Manila
- 24- Lahore
- 25- Karachi



Tokyo remains at the top of the Asian regional ranking and retains its fourth place spot globally. With a robust economy that ranks third in the world, the Japanese capital also has significant strengths in technology, governance, and international profile, where it ranks ninth, 10th, and 16th, respectively. Tokyo is closely followed in the region by Singapore, which ranks sixth globally and is particularly strong in the dimensions of technology and international profile, where it ranks fourth in both cases, reflecting its advanced infrastructure and global connectivity.

Seoul ranks third in the region and 13th globally, with an impressive eighth place in human capital, demonstrating its investment in education and talent development. Beijing, for its part, has dropped to 21st in the global ranking, but continues to lead in the mobility and transportation

dimension, where it ranks first in the world, highlighting the efficiency of its transportation infrastructure. Despite ranking 21st globally, Taipei performs exceptionally well in social cohesion, where it ranks second and stands out for its social harmony and the quality of urban life.

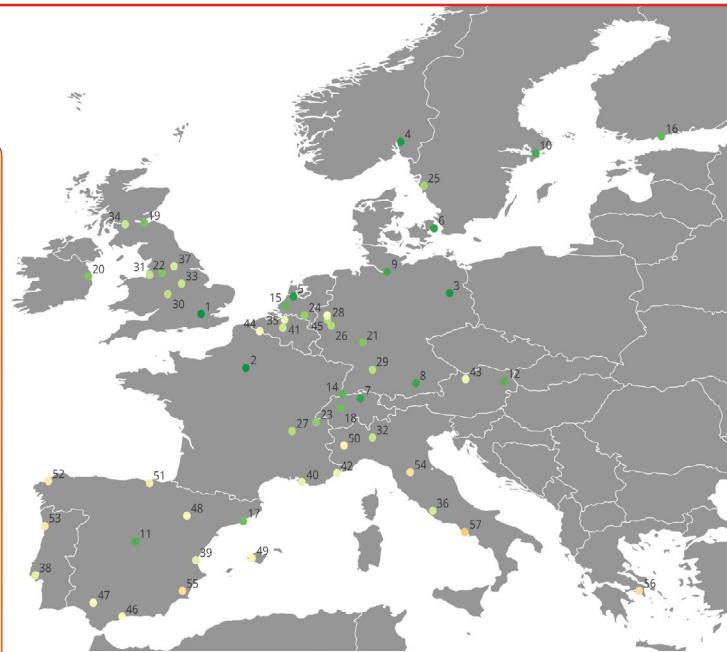
The positions of these cities in the global ranking reflect their multidimensional development and international influence. While Tokyo and Singapore lead with their economic strength and technological advances, cities like Seoul and Taipei show that human capital and social cohesion are equally important to achieving a high ranking. Beijing stands out in the area of mobility, highlighting the critical importance of an efficient transportation infrastructure as a key pillar for the vitality and development of urban life.

Top 5 Western Europe



- 01- London
- 02- Paris
- 03- Berlin
- 04- Oslo
- 05- Amsterdam
- 06- Copenhagen
- 07- Zurich
- 08- Munich
- 09- Hamburg
- 10- Stockholm
- 11- Madrid
- 12- Vienna
- 13- Reykjavik
- 14- Basel
- 15- Rotterdam
- 16- Helsinki
- 17- Barcelona
- 18- Bern
- 19- Edinburgh
- 20- Dublin
- 21- Frankfurt
- 22- Manchester
- 23- Geneva
- 24- Eindhoven
- 25- Gothenburg
- 26- Cologne
- 27- Lyon
- 28- Düsseldorf
- 29- Stuttgart

- 30- Birmingham
- 31- Liverpool
- 32- Milan
- 33- Nottingham
- 34- Glasgow
- 35- Brussels
- 36- Rome
- 37- Leeds
- 38- Lisbon
- 39- Valencia
- 40- Marseille
- 41- Antwerp
- 42- Nice
- 43- Linz
- 44- Lille
- 45- Duisburg
- 46- Málaga
- 47- Seville
- 48- Saragossa
- 49- Palma de Mallorca
- 50- Turin
- 51- Bilbao
- 52- A Coruña
- 53- Porto
- 54- Florence
- 55- Murcia
- 56- Athens
- 57- Naples



City	Regional position	Global position 2021	Global position 2022	Global position 2023
London- United Kingdom	1	1	1	1
Paris- France	2	4	3	3
Berlin- Germany	3	5	5	5
Oslo- Norway	4	7	8	7
Amsterdam- Netherlands	5	8	7	8

London retains its dominant position in Western Europe, maintaining a firm grip on its leadership position both regionally and globally. The city stands out for its top position in international profile and urban planning. The UK capital also ranks among the top five for economy, governance, and mobility and transportation, underscoring its position as a hub of modern urban life.

Paris continues to impress on a global scale, ranking third with a strong performance in international profile and a robust economy that places it 11th in this dimension. The French capital also stands out in mobility and transportation, and is recognized worldwide for its human capital, placing it in the top 3.

Berlin, which ranks fifth globally, shows strengths in governance and urban planning, where it ranks second and fourth, respectively, reflecting its advanced infrastructure and commitment to effective administration. The city's focus on environmental sustainability and social cohesion underscores its commitment to an equitable and sustainable future.

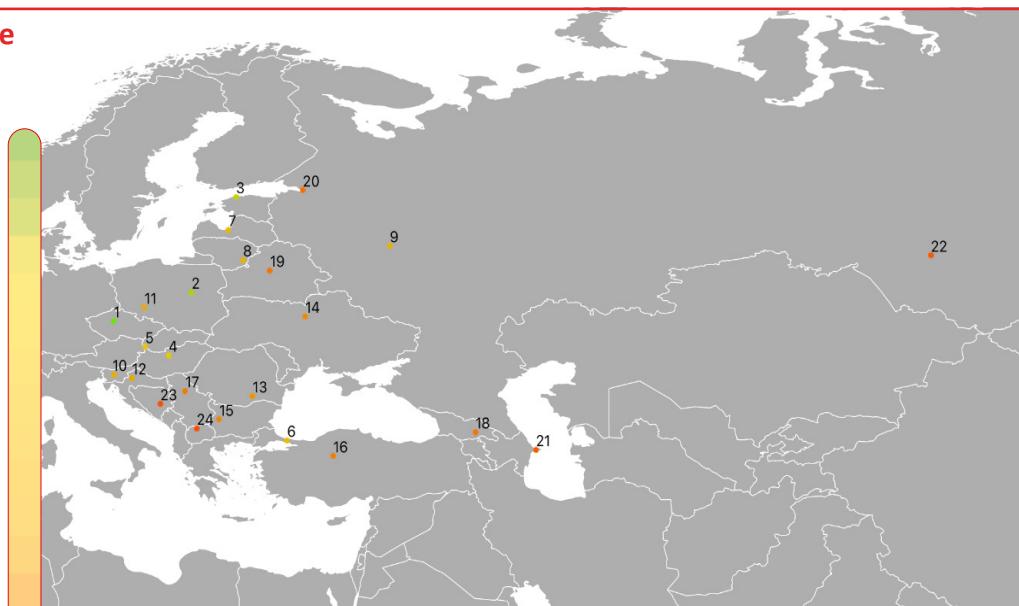
Ranked seventh globally, Oslo is positioned as an environmental leader (second only to Reykjavik), demonstrating its commitment to sustainable urban living and environmental well-being. The city's solid performance in various dimensions reflects the quality of city management and its commitment to sustainable practices.

Amsterdam, ranked eighth globally, is a pioneer in technology and urban planning, underscoring its ability to attract talent and foster innovation. The city's position at the forefront of technology and its focus on progressive urban development earn it a prominent position in the global ranking.

In addition to being among the global top 10, all of these European metropolises perform exceptionally well in several key dimensions, positioning them as leaders in various facets of urban life.

Top 5 Eastern Europe

- 01- Prague
- 02- Warsaw
- 03- Tallinn
- 04- Budapest
- 05- Riga
- 06- Istanbul
- 07- Vilnius
- 08- Moscow
- 09- Wroclaw
- 10- Bratislava
- 11- Ljubljana
- 12- Zagreb
- 13- Sofia
- 14- Bucharest
- 15- Kyiv
- 16- Ankara
- 17- Saint Petersburg
- 18- Tbilisi
- 19- Belgrade
- 20- Minsk
- 21- Baku
- 22- Skopje
- 23- Novosibirsk
- 24- Sarajevo



City	Regional position	Global position 2021	Global position 2022	Global position 2023
Prague- Czech Republic	1	53	52	50
Warsaw- Poland	2	60	61	63
Tallinn- Estonia	3	62	66	72
Budapest- Hungary	4	83	92	87
Riga- Latvia	5	93	100	92

The Eastern Europe ranking is led by Prague (Czech Republic), which also has a strong global position, ranking 50th in 2023. The Czech capital excels in the environment dimension, where it ranks 14th, reflecting a significant commitment to sustainability. The city ranks 45th in mobility and transportation and 32nd in human capital, demonstrating the quality of its workforce and in education.

Warsaw, the capital of Poland, ranks second in the region and 63rd globally. The city performs exceptionally well in governance, where it holds the fourth spot, but faces challenges in social cohesion, where it is ranked 111th. Conversely, it performs very well in mobility and transportation, where it occupies 34th position.

Tallinn, the capital of Estonia, remains third in its region and ranks 72nd globally. Although the city stands out in social cohesion, where it occupies the 23rd position, it needs to improve in areas such as international profile and economy, where it ranks 104th and 111th respectively.

Budapest, the capital and jewel of Hungary, ranks fourth regionally and 87th globally. Despite its lower ranking in social cohesion and technology, where it holds 121st and 119th position respectively, the city performs more strongly in human capital, where it ranks 37th.

Riga, the capital of Latvia, rounds out the top 5 in the region and ranks 92nd globally. The city stands out particularly in urban planning and the environment, where it occupies 38th and 40th position, respectively, but the challenges it faces are evident in the international profile, governance, and technology dimensions, where it ranks 130th, 132nd, and 134th, indicating that these are priority areas for its development.

Top 3 Oceania



- 01-Melbourne
- 02- Sydney
- 03- Canberra
- 04- Wellington
- 05- Auckland

City	Regional position	Global position 2021	Global position 2022	Global position 2023
Melbourne-Australia	1	33	38	19
Sydney-Australia	2	23	31	28
Canberra-Australia	3	35	40	38

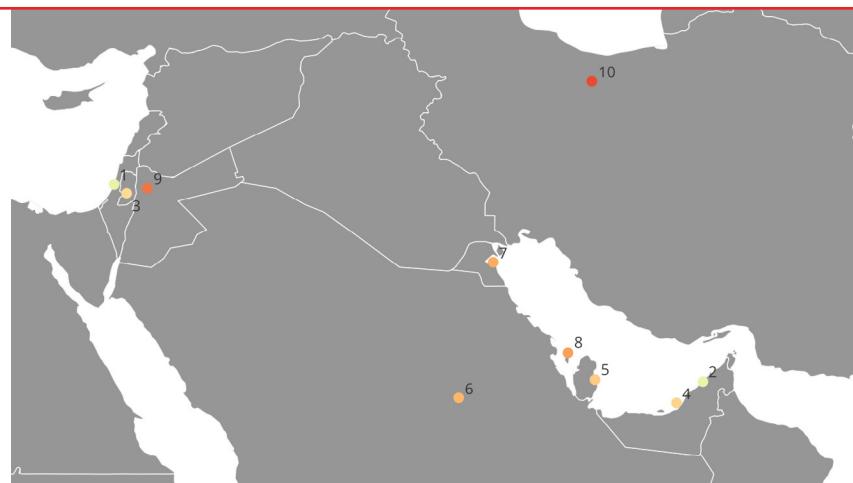
Melbourne tops the Oceania ranking and holds 19th place globally. Australia's most populous city stands out in human capital, where it ranks ninth, evidencing its focus on education and workforce quality. The city also holds strong positions in international profile, governance, and social cohesion, ranking 13th, 14th, and 16th respectively, demonstrating its commitment to social well-being and administrative efficiency.

Sydney ranks second in the region and 28th globally. The city excels in human capital and international profile, where it is positioned at 13th and 11th place, and also performs well in governance and social cohesion, ranking 19th and 20th respectively. Despite its lower ranking in mobility and transportation (117th), it remains a standout city in terms of infrastructure and services.

Canberra, the capital of Australia, rounds out the regional top 3 and ranks 38th globally. It is the leading city in social cohesion, securing an enviable third place, and in the environment dimension, where it ranks seventh, reflecting its exceptional quality of life and commitment to sustainability. Despite its low international profile, where it ranks 112th, Canberra shows great potential in several key dimensions.

Top 5 Middle East

- 01- Tel Aviv
- 02- Dubai
- 03- Jerusalem
- 04- Abu Dhabi
- 05- Doha
- 06- Riyadh
- 07- Kuwait City
- 08- Manama
- 09- Amman
- 10- Tehran



City	Regional position	Global position 2021	Global position 2022	Global position 2023
Tel Aviv- Israel	1	82	87	80
Dubai- United Arab Emirates	2	73	82	81
Jerusalem- Israel	3	113	114	112
Abu Dhabi- United Arab Emirates	4	118	117	116
Doha- Qatar	5	128	130	121

Tel Aviv leads the Middle East ranking and improved its position in the global ranking to 80th in 2023. It is followed by Dubai, which ranks second regionally and has risen to 81st globally. Jerusalem ranks third in the region and has seen a slight improvement in its global ranking, from 114th in 2022 to 112th in 2023. Abu Dhabi, meanwhile, is a close fourth regionally and ranks 116th globally. Finally, Doha, which holds the last spot in the regional top 5, has seen a significant improvement in recent years, rising to 121st in the global ranking.

The top 5 cities in the Middle East face unique challenges in their transformation to smart cities. These challenges include integrating modern technologies with aging in-

frastructure, managing resources sustainably in a climate characterized by water scarcity and high temperatures, and developing in a way that preserves their rich cultural heritage. These cities must also promote social and economic cohesion in a context of historical conflict, which requires innovative strategies to build resilience and promote peace in an environment often affected by political instability and military tensions.

Figure 7. Standout cities



Standout cities

In this section, we present individual analyses of a number of cities that occupy prominent positions in the overall ranking or in one of the dimensions.

The tables show the evolution of each city in the overall ranking, the dimensions in which it performs particularly well, its position within its region, and its classification by performance.

The bar chart shows the number of positions the city would have to advance in each dimension to reach the top spot. This analysis makes it possible to visualize a city's strengths and weaknesses and identify the dimensions where work could be done to improve its performance.



BARCELONA

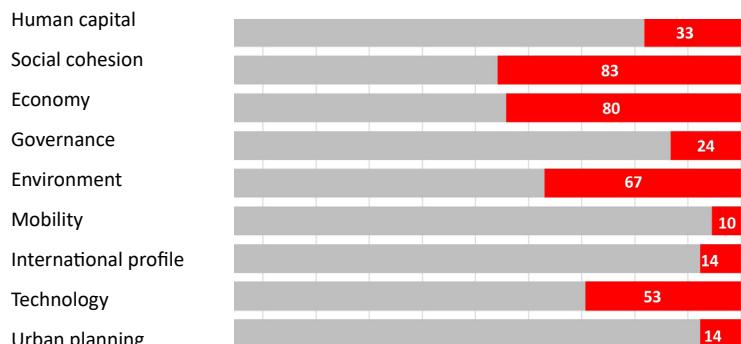
Barcelona is the second ranked Spanish city in the CIMI and occupies 29th position in the overall ranking. The city stands out in the dimensions of mobility and transportation, urban planning, and international profile, where it ranks among the top 15. The Sustainable Mobility Index of the Provincial Capitals of Spain (Spanish acronym: IMSCE), which analyzes six areas of public transportation in Spanish cities, ranks Barcelona first in the dimensions of physical structure of the territory, demand for mobility services, and management and governance. This is because the city's land-use planning aims to positively influence mobility and the economy of the city, providing affordable, accessible and safe transportation options for all, based on a management approach that allows it to adapt to new demands from all groups of citizens in different time periods. Barcelona is also a city where more than 90% of the population has access to high-speed Internet, which enables its residents to use an application to access more than half a million public administration services.

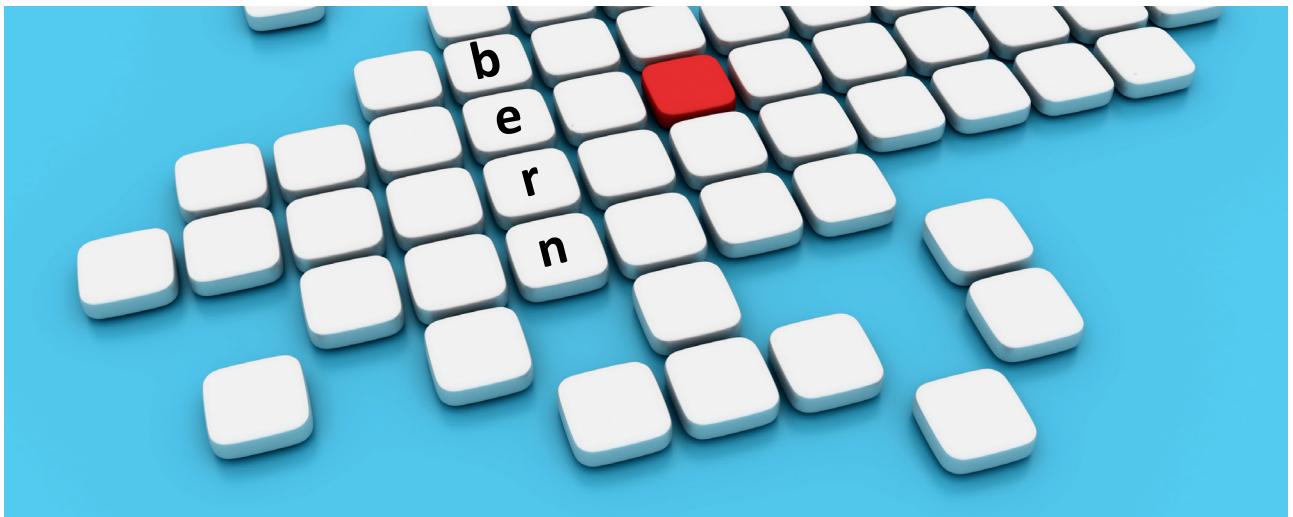
29	17	11	RH
CIMI Rank	Regional CIMI	Mobility and transportation	Classification by performance

Evolution of CIMI rank over the last three years

	2021	2022	2023
Rank	32	32	29

Positions that Barcelona would have to gain to be a leader in each dimension





BERN

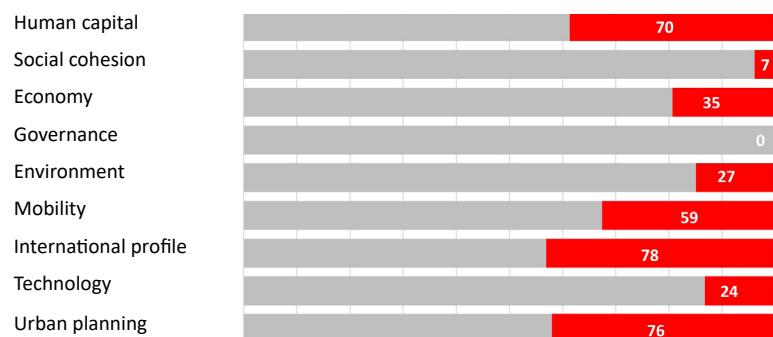
The Swiss capital stands out on the world stage, ranking 30th in the **CIMI**. The city's leadership is particularly evident in the governance dimension, where it takes the top spot, and in social cohesion, where it ranks eighth. Bern strikes an enviable balance between economic strength, supported by strategic investments in technology, and an environment of social inclusion that attracts and retains citizens. It is recognized for its excellent social protection system, high standards of democracy and governance, and a solid reputation based on ethics and social values. The city is also committed to equality and to caring for the environment, factors that contribute to its strong appeal. Because of its manageable population size, Bern benefits from being able to implement policies efficiently, without the endemic problems that often plague macro-cities, which makes the positive results of its policies easier to see and quantify.

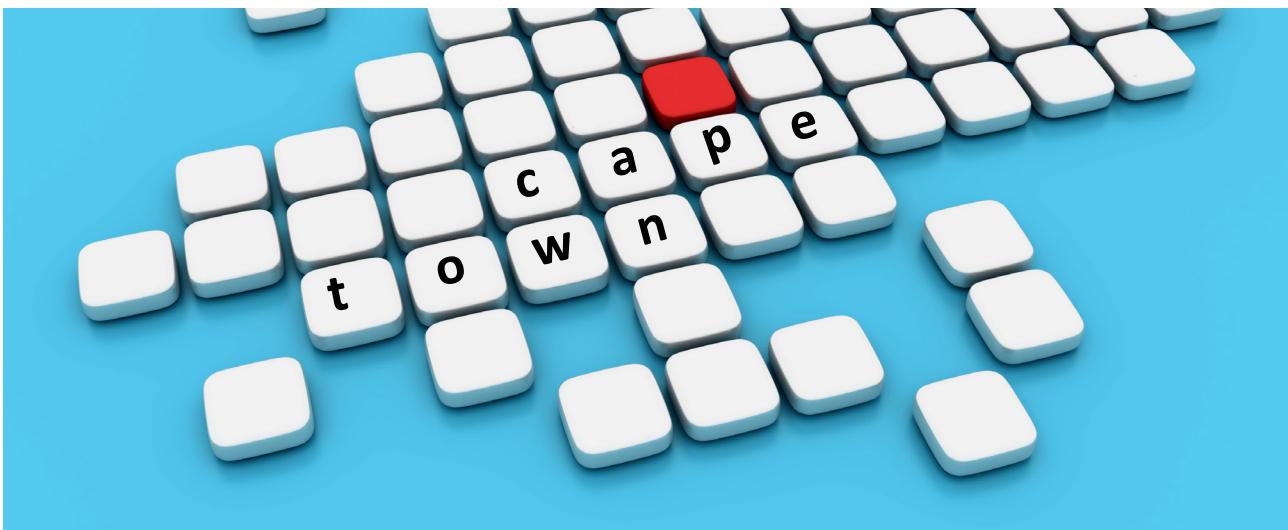
30	1	8	RH
CIMI Rank	Governance	Social cohesion	Classification by performance

Evolution of CIMI rank over the last three years

	2021	2022	2023
Rank	22	22	30

Positions that Bern would have to gain to be a leader in each dimension





CAPE TOWN

South Africa's second most populous city ranks 141st in the global index and is the leader in its region. Despite its low ranking, the city is committed to improving its results. As part of this commitment, Cape Town is improving access to information for its citizens by providing free WiFi on city buses, an initiative that promotes equal access to the Internet in public spaces. In addition, the city's advanced broadband infrastructure allows citizens to take full advantage of its open data portal, a key component of Cape Town's smart city strategy. The portal provides access to a wide range of municipal information, increasing transparency and accountability in local government.

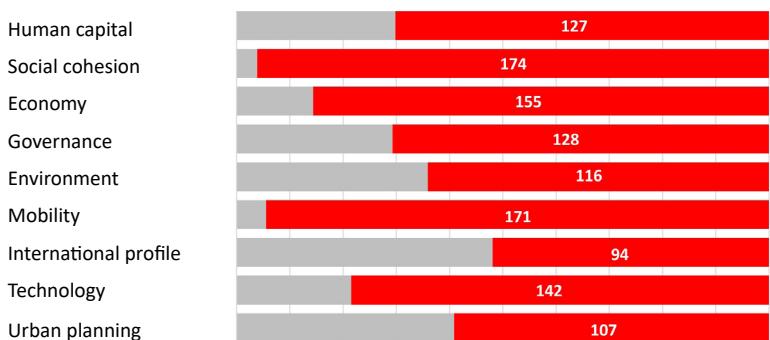
Apart from providing access to information, Cape Town is at the forefront of using real-time data to support surveillance and emergency response services, including fire and rescue, law enforcement, and disaster risk management.

141	1	M
CIMI Rank	Regional CIMI	Classification by performance

Evolution of CIMI rank over the last three years

	2021	2022	2023
Rank	132	139	141

Positions that Cape Town would have to gain to be a leader in each dimension





DUBAI

Dubai is looking to the future with its ambitious Dubai Plan 2021, which aims to make it a smart and sustainable city. Through its smart city project, Dubai intends to transform nearly a thousand government services, focusing on critical sectors such as transportation, infrastructure, communications, economy, urban planning, and electricity. The initiatives that have been launched range from open access to data, smart transportation, and energy optimization to the creation of smart parks and beaches with police service applications for smartphones.

This effort is complemented by the unification of government agencies to provide integrated services in an efficient, seamless manner. The strategy focuses on three key areas: first, smart living that improves services in health, education, transportation, communications, and energy; second, a smart economy that promotes innovative business start-ups, state-of-the-art port services, markets for technology stocks, and creative job opportunities; and third, a flagship project involving the construction of a high-speed hyperloop transportation system to connect the city to Abu Dhabi—a milestone that represents a critical step forward in realizing the smart city vision in the United Arab Emirates (UAE).

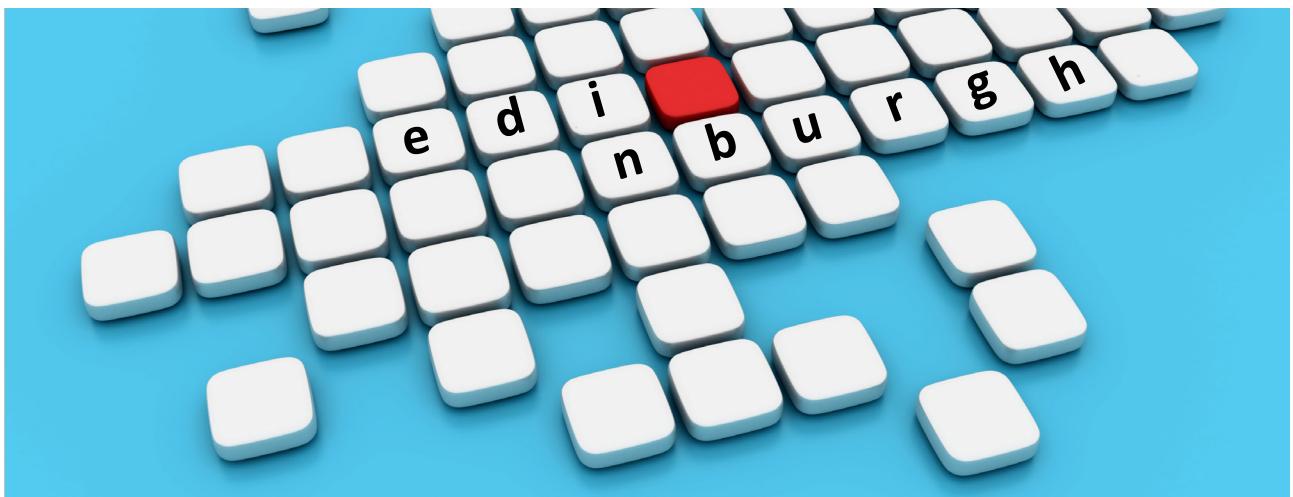
81	2	2	M
CIMI Rank	Regional CIMI	Technology	Classification by performance

Evolution of CIMI rank over the last three years

	2021	2022	2023
Rank	73	82	81

Positions that Dubai would have to gain to be a leader in each dimension





EDINBURGH

In addition to its rich historical heritage, Scotland's capital is known as a leader in innovation. Faced with the challenges posed by its growing population and the imperatives of climate change, Edinburgh is adopting cutting-edge technologies as part of its 2020–2023 Digital and Smart City Strategy, which redefines technology use and systems integration to fit the current context. One notable example is the creation of an operations center—a technological hub that serves as the city's operational brain, managing real-time data 24 hours a day, seven days a week. The center processes information gathered from the city's closed circuit television (CCTV) network and key partners such as Police Scotland, the Fire and Rescue Service, and Transport for Edinburgh, the organization that oversees public transportation in the city. This technological integration provides multiple benefits to residents, ranging from enhanced public safety and traffic optimization to improved transportation infrastructure and urban planning, and contributes significantly to reducing the city's carbon footprint. The operations center also serves as a critical hub for disaster and emergency management, facilitating effective coordination in response to any incident.

32	19	1	RH
CIMI Rank	ICIM regional	Social cohesion	Classification by performance

Evolution of CIMI rank over the last three years

	2021	2022	2023
Rank	36	35	32

Positions that Edinburgh would have to gain to be a leader in each dimension





HONG KONG

The Hong Kong Smart City Blueprint 2.0 reaffirms the city's commitment to digital transformation in key areas such as transportation, health, education, and environmental protection. The first wave of "urban intelligence" initiatives focused on integrating technology into government management and improving the functionality of infrastructure, with an emphasis on efficiency and data collection. But the innovation did not stop there. Evolution towards a second generation has achieved a symbiosis between technology and everyday human experience. In Hong Kong, initiatives such as iAM Smart and COVID-19 tracking apps illustrate the tangible impact that smart cities can have on the lives of citizens and how such technological advances can enrich the everyday experience of city dwellers.

37	1	8	RH
CIMI Rank	Technology	International profile	Classification by performance

Evolution of CIMI rank over the last three years

	2021	2022	2023
Rank	24	20	37

Positions that Hong Kong would have to gain to be a leader in each dimension





LONDON

1	1	H	1	1	1
CIMI Rank	Regional CIMI	Classification by performance	International profile	Human capital	Urban planning

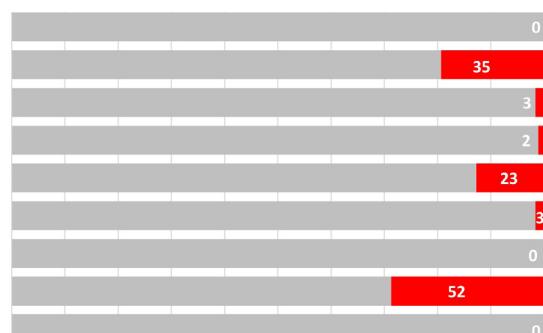
The UK capital stands out in Europe as a pioneering city in the implementation of smart technologies, particularly thanks to its extensive network of 5G towers, electric vehicle charging stations, and impressive green infrastructure. In a recent [ProptechOS](#) study that ranked cities based on 11 metrics across three categories—tech infrastructure, green infrastructure, and tech job market—London topped the list as the city best prepared for a smart city future. The city stands out for its extensive green infrastructure, with the largest number of public electric vehicle chargers and the most green-certified buildings in Europe.

London's smart city vision is underpinned by access to open data and a data-driven approach, including the use of the London DataStore to provide local information to citizens and support initiatives such as High Streets for All and Energy for Londoners. Transportation is also a notable area of innovation, with advanced payment systems for public transportation and apps like Go Jauntly that encourage people to use walking

Evolution of CIMI rank over the last three years

	2021	2022 ^{se}	2023
Rank	1	1	1

Positions that London would have to gain to be a leader in each dimension





routes as a healthy way to get around. In addition, Transport for London (TfL) has received significant funding for projects including LED lighting and solar panels at Tube stations and energy improvements to TfL buildings.

The use of bicycles in London is very popular. The city has a fleet of over 12,000 bikes (through the Santander Cycles bike-sharing program) distributed across almost 800 docking stations. To promote safe and responsible cycling, local councils have introduced educational programs, known as Bikeability cycle training, in schools to teach children how to cycle safely on roads. In addition, there are charitable organizations that support the Bike Project, whose goal is to collect used bicycles, repair them, and donate them to asylum seekers and refugees, providing newcomers to the city with an essential means of transportation.

On the environmental front, the city has set the ambitious goal of achieving net-zero emissions by 2030. A Ultra Low Emission Zone has been established, and waste heat

from the underground system is being used to improve air quality. This initiative has been bolstered by the creation of the Mayor of London's Energy Efficiency Fund, a £500-million investment fund to support renewable energy, clean transportation, and energy efficiency projects.

In terms of security, the smart city strategy includes an extensive network of 5G technology, sensors, cameras, drones, and robotics for effective surveillance and rapid response to incidents—all aimed at keeping the city safe. At the same time, the Greater London Authority encourages citizens to participate in building the future of the city, promoting their involvement in urban projects and services through initiatives such as Talk London and Make London. Finally, the London Office of Technology and Innovation (LOTI) focuses not just on technology implementation, but on the strategic use of all available tools to achieve significant impacts in the lives of Londoners.



MADRID

In addition to securing an impressive 20th place in the global **CIMI** ranking, the Spanish capital stands out in the international profile dimension and in mobility and transportation, where it ranks 10th and eighth, respectively. As part of its continuing effort to be a global leader in urban development, Madrid is about to embark on another flagship project that will further cement its status as a smart city: the installation of the most advanced smart waste management infrastructure in Europe. With the implementation of this smart system designed to monitor the fill level of recycling containers, the city is taking a significant step toward sustainability and efficiency in managing its resources. This unprecedented initiative will equip more than 12,000 containers used to collect light packaging, textiles, glass, organics, and other waste with advanced sensors that will feed information into an advanced waste management software platform, which will also help optimize collection routes. In addition to being recognized as one of the most efficient platforms on the market, this robust cloud solution enables users to configure, monitor, and organize day-to-day waste management operations. Innovative features of the system include visualization of containers on a digital map and integration with street-level images. The installation of pilot sensor-equipped containers began in 2023, marking a milestone in Madrid's strategy to become a world-leading smart city.

20	12	8	RH
CIMI Rank	Regional CIMI	Mobility and transportation	Classification by performance

Evolution of CIMI rank over the last three years

	2021	2022	2023
Rank	34	24	20

Positions that Madrid would have to gain to be a leader in each dimension





MELBOURNE

Melbourne is one of Australia's leading cities in biophilic urban design and planning, which integrates nature into the fabric of city life. This approach seeks to create oases of biodiversity and tranquility in the midst of urban activity, promoting the presence of native species and the development of green spaces, even in the most densely populated sectors of the city. Embodying this commitment to the natural environment, the Green Our City Strategic Action Plan aims to transform the metropolis, encouraging the implementation of green walls and green roofs as pillars of the city's revitalizing vision.

In support of this vision, the city has launched a number of programs aimed at improving sustainability and urban intelligence. These initiatives include Data in the Park, a project that uses advanced sensor technology to analyze interactions and behaviors in the city's green spaces, which are vital for recreation and community cohesion. The processing and analysis of this data is ultimately intended to improve the management, maintenance, and future design of city parks.

19	1	9	RH
CIMI Rank	Regional CIMI	Human capital	Classification by performance

Evolution of CIMI rank over the last three years

	2021	2022	2023
Rank	33	38	19

Positions that Melbourne would have to gain to be a leader in each dimension

Human capital
Social cohesion
Economy
Governance
Environment
Mobility
International profile
Technology
Urban planning





NEW YORK

The most populous US city has adopted a novel strategy for evaluating cutting-edge technologies. In October 2023, the city's Office of Technology and Innovation launched the NYC Smart City Testbed Program, a progressive initiative that facilitates collaboration between city agencies, companies, and academic institutions in the implementation of experimental projects, which will be carried out primarily in public spaces. The initiative is designed to help the city make better-informed decisions to ensure optimal technology selection and effective implementation. One example is the use of drones and robotic systems, among other innovative technologies, to conduct infrastructure inspections and identify structural deficiencies that reduce energy efficiency and contribute to increased greenhouse gas emissions. In addition, devices equipped with artificial or computer vision technology are collecting data on the use of city streets by residents in 12 key urban zones. By analyzing mobility patterns and producing comprehensive reports, this pilot project aims to guide road safety policies and the future redesign of the city's traffic arteries.

2	1	H
CIMI Rank	Regional CIMI	Classification by performance
1	2	2
Economy	Human capital	Urban planning

Evolution of CIMI rank over the last three years

	2021	2022	2023
Rank	2	2	2

Positions that New York would have to gain to be a leader in each dimension





REYKJAVIK

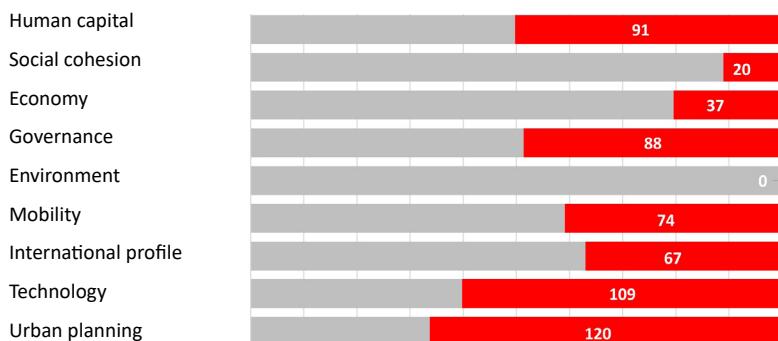
Iceland's capital is undergoing a citywide digital transformation, driving innovation in key sectors such as energy, transportation, well-being, education, and culture through its ambitious smart city initiatives and the Reykjavik Green Deal. Committed to sustainability and innovation, the city operates on 100% renewable energy and is a leader in the adoption of clean and efficient technologies. From humble beginnings in the early 20th century, Iceland has undergone an exemplary economic transformation from one of the poorest nations in Europe to a country with one of the highest standards of living on the planet. This remarkable leap forward in development has been greatly facilitated by the adoption and efficient management of sustainable energy resources. In addition to their essential role in generating electricity, geothermal and hydropower are used to heat homes and businesses, making the nation's capital a world leader in the use of large-scale renewable energy. Reykjavik has taken sustainability a step further by heating its many pools with geothermal water, a distinctive feature of the city that allows residents to enjoy outdoor swimming year-round, regardless of the weather.

23	4	1	RH
CIMI Rank	Regional CIMI	Environment	Classification by performance

Evolution of CIMI rank over the last three years

	2021	2022	2023
Rank	19	29	23

Positions that Reykjavik would have to gain to be a leader in each dimension





SANTIAGO

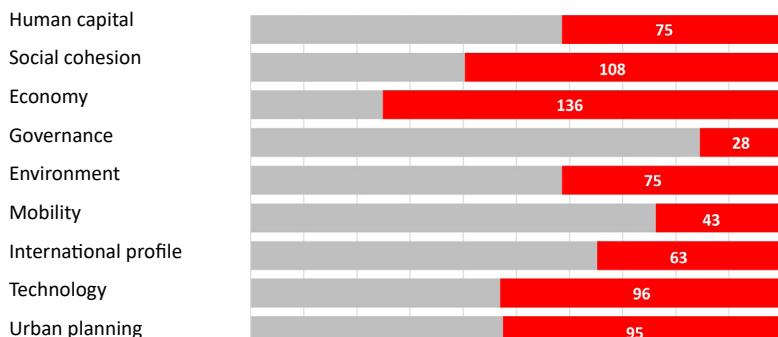
In 2017, Santiago, Chile, embarked on an ambitious initiative by submitting a project to the Green Climate Fund to electrify 25% of its public bus fleet by 2025. This goal was met and surpassed ahead of schedule, with electric buses accounting for 30% of the fleet (nearly 7,000 vehicles) in the Chilean capital in 2023. Public transportation in Latin America is essential for the mobility of low-income populations, while personal electric vehicle ownership is still out of reach for many. Santiago's strategy of introducing electric vehicles into its public transportation system has democratized access to cleaner, more efficient mobility, benefiting the entire population without exception. The city's successful transition to a cleaner public transportation system is due in part to the effective integration of climate policy and air quality improvement strategies. These actions have contributed to a 70% reduction in the number of days with poor air quality since 2013, resulting in a significant improvement in the health and well-being of residents.

91	1	M
CIMI Rank	Regional CIMI	Classification by performance

Evolution of CIMI rank over the last three years

	2021	2022	2023
Rank	94	85	91

Positions that Santiago would have to gain to be a leader in each dimension





Cities in Motion. Evolution

The way a city is being transformed is of vital importance when it comes to understanding the goal it is working towards in terms of development. Accordingly, **Table 13** shows the evolution of the index over the last three years for the top 50 cities in the **CIMI 2023** ranking.

As the table shows, there is little change at the top of the ranking from year to year. Cities such as London, New York, and Paris maintain their leadership throughout the 2021–23 period. Below 16th place, however, there are significant movements in both directions. The changes seem to be mainly related to the economy dimension, which might have been affected by recent armed conflicts, following the recovery of these cities in the wake of COVID-19. For example, the Australian city of Melbourne experiences a notable gain of 19 places in 2023, likely due to its economic resilience and adaptation fol-

lowing the pandemic and in the context of international tensions. Madrid also shows an upward trend, gaining 10 positions in 2022 and another four in 2023. In contrast, other cities fall drastically. This is the case of Hong Kong, which drops 17 positions in 2023, which could indicate an economic impact resulting from political turmoil and global conflicts. Dublin, on the other hand, has made significant progress, rising eight places over the period, suggesting economic strength that may be linked to effective policies and a diversified economy that allows it to navigate the turbulent global climate.

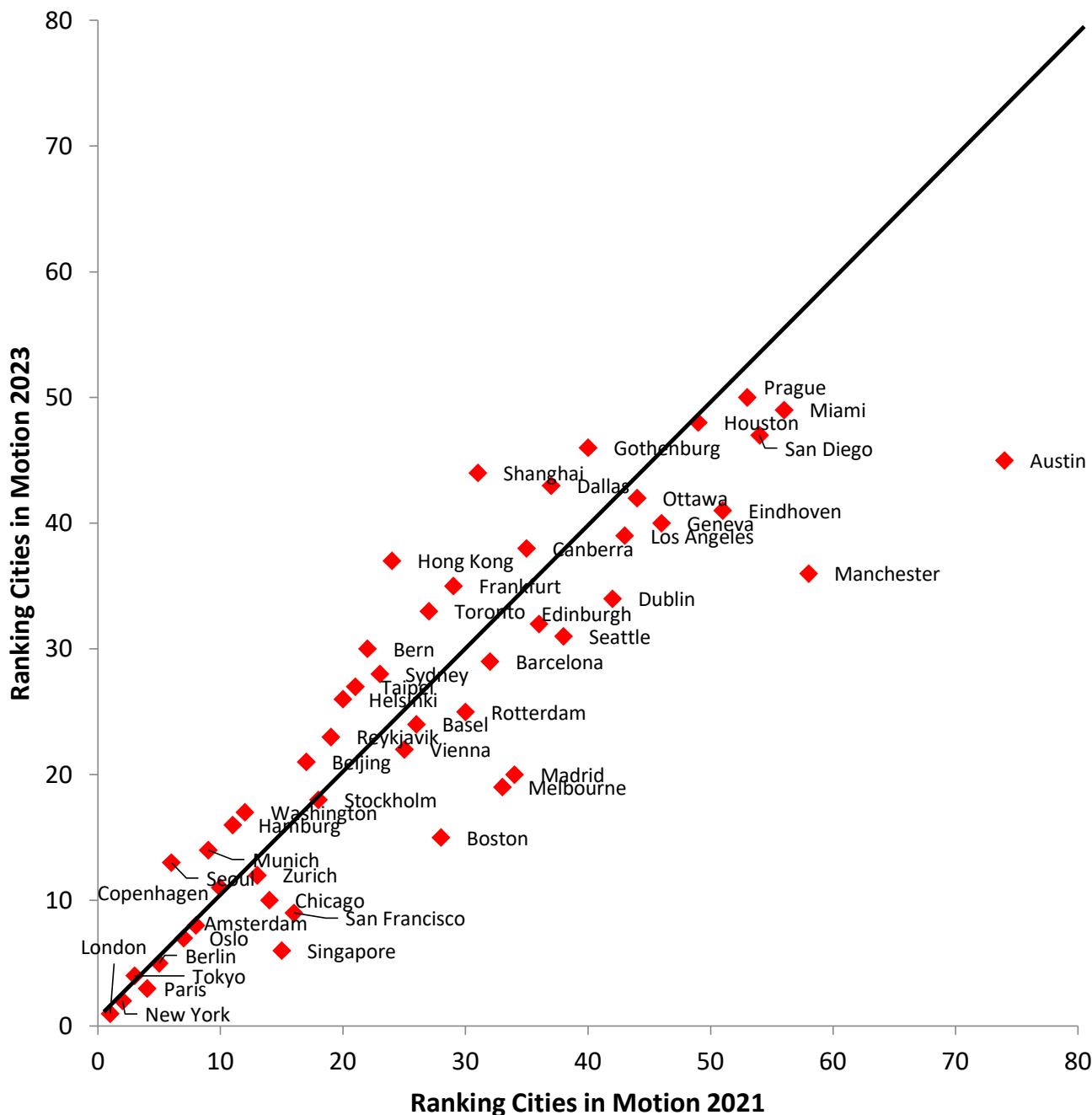
Table 13. Evolution of the index for the top 50 cities in the 2023 ranking (last three years)

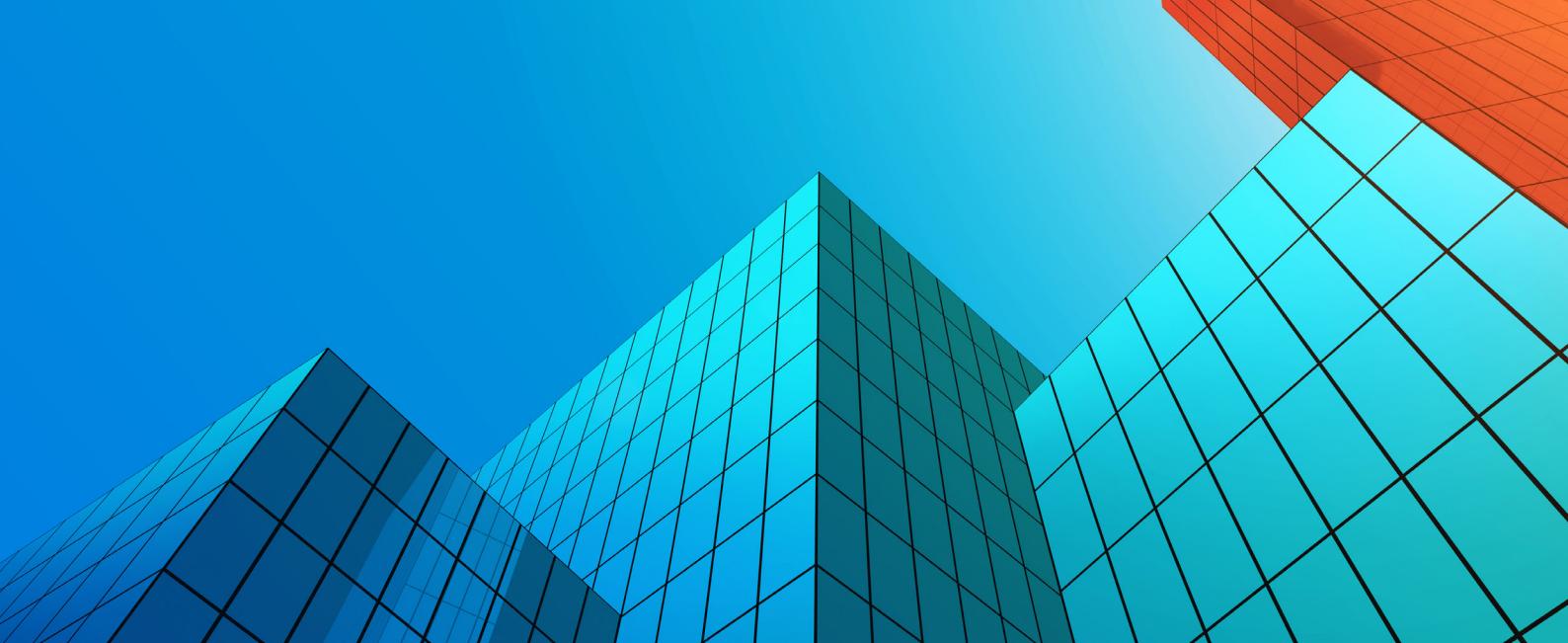
City	2021	2022	2023	2021-2022	2022-2023
London - United Kingdom	1	1	1	0	0
New York - USA	2	2	2	0	0
Paris - France	4	3	3	1	0
Tokyo - Japan	3	4	4	-1	0
Berlin - Germany	5	5	5	0	0
Singapore - Singapore	15	6	6	9	0
Oslo - Norway	7	8	7	-1	1
Amsterdam - Netherlands	8	7	8	1	-1
San Francisco - USA	16	9	9	7	0
Chicago - USA	14	11	10	3	1
Copenhagen - Denmark	10	10	11	0	-1
Zurich - Switzerland	13	13	12	0	1
Seoul - South Korea	6	14	13	-8	1
Munich - Germany	9	15	14	-6	1
Boston - USA	28	17	15	11	2
Hamburg - Germany	11	18	16	-7	2
Washington - USA	12	12	17	0	-5
Stockholm - Sweden	18	19	18	-1	1
Melbourne - Australia	33	38	19	-5	19
Madrid - Spain	34	24	20	10	4
Beijing - China	17	16	21	1	-5
Vienna - Austria	25	26	22	-1	4
Reykjavik - Iceland	19	29	23	-10	6
Basel - Switzerland	26	25	24	1	1
Rotterdam - Netherlands	30	23	25	7	-2
Helsinki - Finland	20	27	26	-7	1
Taipei - Taiwan	21	21	27	0	-6
Sydney - Australia	23	31	28	-8	3
Barcelona - Spain	32	32	29	0	3
Bern - Switzerland	22	22	30	0	-8
Seattle - USA	38	30	31	8	-1
Edinburgh - United Kingdom	36	35	32	1	3
Toronto - Canada	27	28	33	-1	-5
Dublin - Ireland	42	37	34	5	3
Frankfurt - Germany	29	36	35	-7	1
Manchester - United Kingdom	58	39	36	19	3
Hong Kong - China	24	20	37	4	-17
Canberra - Australia	35	40	38	-5	2
Los Angeles - USA	43	33	39	10	-6
Geneva - Switzerland	46	47	40	-1	7
Eindhoven - Netherlands	51	42	41	9	1
Ottawa - Canada	44	46	42	-2	4
Dallas - USA	37	41	43	-4	-2
Shanghai - China	31	34	44	-3	-10
Austin - USA	74	69	45	5	24
Gothenburg - Sweden	40	48	46	-8	2
San Diego - USA	54	49	47	5	2
Houston - USA	49	44	48	5	-4
Miami - USA	56	43	49	13	-6
Prague - Czech Republic	53	52	50	1	2

Figure 8 shows the changes in the ranking of the top 50 cities from 2021 to 2023. Cities that have gained positions are shown below the 45-degree angle formed by the diagonal line, indicating an improvement in their ranking. Those that have fallen in the ranking are positioned above the line. This visual representation complements the data presented in **Table 13** and highlights

the most notable movements. Cities such as Shanghai, Hong Kong, Dallas, and Gothenburg, which experienced steep declines, are located above the diagonal line. In contrast, cities such as Austin, Manchester, Madrid, and Melbourne made significant gains and are situated below the diagonal line, indicating an improvement in their position over the period analyzed.

Figure 8. Evolution of the top 50 cities in the ranking (2021–23)





Cities in Motion versus other indexes

In this section, we compare the **CIMI** and other indexes. **Table 14** shows the top 10 cities in this ranking (2024 edition) and the top 10 in seven other indexes. Cities that appear in the **CIMI** top 10 are shown with shading.

In a comparative analysis of city rankings that use different methodologies and criteria, a consistent trend emerges: Cities that excel in multiple dimensions (economic, financial, technological, cultural, and quality of life) tend to be more influential and competitive at the global level. These dimensions include a wide range of factors, such as promotion of music and fashion, ease of starting a business, quality of life, and implementation of advanced technologies. The data show that, with few exceptions, the cities highlighted in this edition of the **CIMI** also rank highly in other important indexes.

London, which tops the **CIMI 2024** list, also leads the Global Cities Index 2023 and the 2024 edition of the World's Best Cities Report, and ranks highly in the Global Financial Centres Index (GFCI) and the IMD Smart City Index 2023. The UK capital holds a strong position in several rankings, highlighting its exceptional performance in areas such as international profile, technology, and economy.

For its part, New York, which ranks second in the **CIMI**, shows impressive consistency, appearing among the top cities in most indexes, including the Global Cities Index and the Global Power City Index (GPCI), reflecting its status as a financial and cultural powerhouse.

Paris and Tokyo also stand out for their frequent presence among the top 10 cities in various rankings. The Japanese capital, for example, appears in almost all the lists considered, demonstrating its strength in technology and quality of life, although it does not appear in the top 10 of the Global Liveability Index 2023, as it did in previous editions.

While there are no cities in this edition that appear in the top 10 of both the **CIMI** and the Global Liveability Index, there are three cities in the top 10 of the latter ranking that appear in the top 20 of the **CIMI**: Copenhagen, Zurich, and Melbourne.

In terms of geographic representation and coverage, the **CIMI** stands out for its inclusion of 183 cities and its efforts to include more cities located in regions that tend to receive less attention. This broad coverage demonstrates the **CIMI's** commitment to diversity and the inclusion of multiple urban perspectives.

Finally, it is noteworthy that the leading cities in the Global Cities Index, the GFCI, the GPCI, and the World's Best Cities Report align with those at the top of the **CIMI**, either in the same or reverse order. This consistency underscores their status as leaders across multiple dimensions of modern urban life.

Table 14. Comparison with other indexes (top 10)

City rank	CIMI 2024 (IESE)	Global Cities Index 2023	Global Financial Centres Index 2023, GFCI (Z/Yen)	Global Power City Index 2023 (MMF)	Liveability Ranking 2023 (Economist Intelligence Unit)	Sustainable Cities Index 2022 The Arcadis	IMD Smart City Index 2023 World Competitiveness Center	World's Best Cities Report 2024 Resonance
		(A.T. Kearney)						
1	London	London	New York	London	Vienna	Oslo	Zurich	London
2	New York	New York	London	New York	Copenhagen	Stockholm	Oslo	Paris
3	Paris	Paris	Singapore	Tokyo	Melbourne	Tokyo	Canberra	New York
4	Tokyo	Los Angeles	Hong Kong	Paris	Sydney	Copenhagen	Copenhagen	Tokyo
5	Berlin	Sydney	San Francisco	Singapore	Vancouver	Berlin	Lausanne	Singapore
6	Singapore	Singapore	Los Angeles	Amsterdam	Zurich	London	London	Dubai
7	Oslo	Tokyo	Shanghai	Seoul	Calgary	Seattle	Singapore	San Francisco
8	Amsterdam	San Francisco	Washington	Dubai	Geneva	Paris	Helsinki	Barcelona
9	San Francisco	Dubai	Chicago	Melbourne	Toronto	San Francisco	Geneva	Amsterdam
10	Chicago	Amsterdam	Geneva	Berlin	Osaka	Amsterdam	Stockholm	Seoul

Cities in Motion.

City ranking by population size

Below we rank the cities included in the ranking in relation to others in the same population category. To this end, the 183 cities included in the index have been classified by population. The classification takes into account various

sources consulted, including *The Economist* and UN sources. **Table 15** shows the various categories and the number of **CIMI** cities included in each one.

Table 15. Classification of cities by population

Category		Number of cities	
	Less than 600,000	Smallest cities	9
	600,000 to 1,000,000	Small cities	18
	1 to 5 million	Medium-sized cities	95
	5 to 10 million	Large cities	28
	Over 10 million	Megacities	33

RANKING OF SMALLEST CITIES

The select group of cities with populations of less than 600,000 demonstrates that size is no barrier to achieving a significant global impact. This group is led by Reykjavik, the capital of Iceland, which remains in first place in this category and has managed to move up the global ranking, reaching 23rd place in 2023, after ranking 19th in 2021 and experiencing a slight drop in 2022. The city of Basel, for its part, ranks second in this population category and shows remarkable consistency in its global ranking, improving its position from 26th in 2021 to 24th in 2023. Bern, the Swiss capital, is not far behind, ranking a strong third in this group and maintaining a prominent position in the global ranking, although it slips slightly from 22nd in 2021 to 30th in 2023. Canberra, the capital of Australia, ranks fourth in the category and gains some ground, moving from 35th in 2021 to 38th in 2023, reflecting its progressive development and commitment to urban innovation and sustainability. Finally, Wellington,

the capital of New Zealand, while dropping slightly in the global ranking from 2021 to 2023, remains in fifth place in the category thanks to the quality of life the city offers and its focus on social cohesion and the environment.

The cities in this group are demographically compact but big on vision and execution, resulting in a high quality of life and effective city management that positions them favorably on the world stage.

Top 5 cities with population under 600,000

City	Regional position	Global position 2021	Global position 2022	Global position 2023
Reykjavik - Iceland	1	19	29	23
Basel - Switzerland	2	26	25	24
Bern - Switzerland	3	22	22	30
Canberra - Australia	4	35	40	38
Wellington - New Zealand	5	39	53	54

RANKING OF SMALL CITIES



In the 600,000 to 1,000,000 population category, a quintet of cities stand out for their performance on the global stage, showing that efficiency and quality of life are not the exclusive domain of megacities. Edinburgh, Scotland's historic capital, is the leader in this group and has successfully climbed the global ranking from 36th in 2021 to 32nd in 2023, demonstrating the power of its cultural heritage and continuous innovation. Geneva ranks second in the category, with a significant improvement in its global ranking from 46th in 2021 to 40th in 2023, reflecting its commitment to international diplomacy, quality of life, and sustainability. Eindhoven in the Netherlands, known for its robust technology sector and strength in education, ranks third and shows an upward trend in the global ranking, rising from 51st in 2021 to 41st in 2023. For its part, Nottingham, a British city that combines historical heritage with

urban modernization, ranks fourth in the group and has improved its global ranking from 71st in 2021 to 65th in 2023. Finally, Quebec City in Canada, known for its vibrant culture and focus on balanced, sustainable urban living, remains in fifth place in the category and rises slightly in the global ranking from 77th in 2021 to 67th in 2023.

These small cities, each with their own unique strengths and approaches, demonstrate how the right size can translate into significant impact and serve as examples of growth, innovation, and quality of life in the global landscape.

Top 5 cities with population 600,000 to 1,000,000

City	Regional position	Global position 2021	Global position 2022	Global position 2023
Edinburgh - United Kingdom	1	36	35	32
Geneva - Switzerland	2	46	47	40
Eindhoven - Netherlands	3	51	42	41
Nottingham - United Kingdom	4	71	67	65
Quebec City - Canada	5	77	68	67

RANKING OF MEDIUM-SIZED CITIES



The one to five million population category includes a group of cities whose performance has secured them a place among the global leaders, demonstrating that medium-sized cities can be as dynamic and competitive as large metropolises. In this category, Oslo, the capital of Norway, ranks first and maintains an impressive consistency in its global performance, ranking seventh in 2021 and 2023 and dropping just one place in 2022. This strong performance reflects the city's success in terms of sustainability, quality of life, and social well-being. For its part, Amsterdam in the Netherlands remains second in the category, swapping places with Oslo in the global ranking in 2022 and 2023. The city's strong performance reflects its influence as a center of innovation, culture, and finance, the strength of its urban infrastructure, and a progressive approach to public policy. San Francisco, in the United States, ranks third in the group and has risen significantly in the global ranking, from 16th in 2021 to

9th in 2023, reflecting the city's preeminence in technology and entrepreneurship and its impact on the global economy. Copenhagen, the capital of Denmark, ranks fourth in the category and has maintained a firm hold on its place in the global top 15, moving from 10th in 2021 to 11th in 2023, underscoring its leadership in design, sustainability, and policies to promote citizen well-being. Zurich, Switzerland, recognized for its robust economy, quality of life, and urban management, rounds out the top 5 in this category and has slightly improved its global ranking to 12th in 2023.

These cities, with populations that do not reach extreme levels of urban density, have demonstrated that efficient management, a focus on sustainability, and the ability to innovate are key to advance on the world stage, and serve as models for how a medium-sized city can achieve a significant global impact.

Top 5 cities with population 1 to 5 million

City	Regional position	Global position 2021	Global position 2022	Global position 2023
Oslo - Norway	1	7	8	7
Amsterdam - Netherlands	2	8	7	8
San Francisco - USA	3	16	9	9
Copenhagen - Denmark	4	10	10	11
Zurich - Switzerland	5	13	13	12

RANKING OF LARGE CITIES



Within the category of cities with between five and 10 million inhabitants, there is a group of metropolises that have asserted their global influence, adapting and evolving over the years to maintain or improve their position in the global ranking.

Berlin, Germany's capital, has established itself as the number one city in this category, projecting an image of stability and strength by securing fifth place in the global ranking for three consecutive years. This consistency reflects the effectiveness of the city's urban policies, its rich cultural life, and a local climate of innovation and

entrepreneurship. For its part, the Asian city-state of Singapore has shown a remarkable upward trajectory, rising from 15th in 2021 to sixth in 2023. This ascent can be attributed to its dynamic economy, state-of-the-art infrastructure, and leadership in areas such as technology and environmental sustainability. Chicago, in the United States, ranks third among large cities and has moved up the global ranking, from 14th in 2021 to 10th in 2023. This jump is a testament to the city's attractiveness in terms of business, innovation, and quality of life. Washington, another US city, despite dropping from 12th to

17th in the global ranking from 2021 to 2023, remains a significant political and cultural power center with influence that goes beyond its ranking numbers. Finally, within this group, Melbourne, Australia, is the city that has seen the most notable change in its global ranking, rising

significantly from 33rd in 2021 to 19th in 2023. This advancement reflects the city's commitment to continuous improvement in areas such as education, infrastructure, and quality of life.

Top 5 cities with population 5 to 10 million

City	Regional position	Global position 2021	Global position 2022	Global position 2023
Berlin - Germany	1	5	5	5
Singapore - Singapore	2	15	6	6
Chicago - USA	3	14	11	10
Washington - USA	4	12	12	17
Melbourne - Australia	5	33	38	19



RANKING OF MEGACITIES

In the category of megacities (with a population of more than 10 million), London tops the ranking, holding the number one spot in the world continuously since 2021. New York, for its part, maintains a firm hold on second place, demonstrating its vitality as a financial, cultural, and business hub. Paris, which combines history, art, and a modern economy, ranks third, followed by Tokyo in fourth place, reflecting its role as an epicenter of technology and urban design. Seoul, the capital of South

Korea, rounds out the top five, moving from 14th in 2022 to 13th in 2023, highlighting its urban dynamics and growing global influence. Despite their status and contributions in many urban dimensions, these megacities face particular challenges in areas such as social cohesion and the environment. New York, in particular, has much room for improvement in these areas.

Top 5 cities with population over 10 million

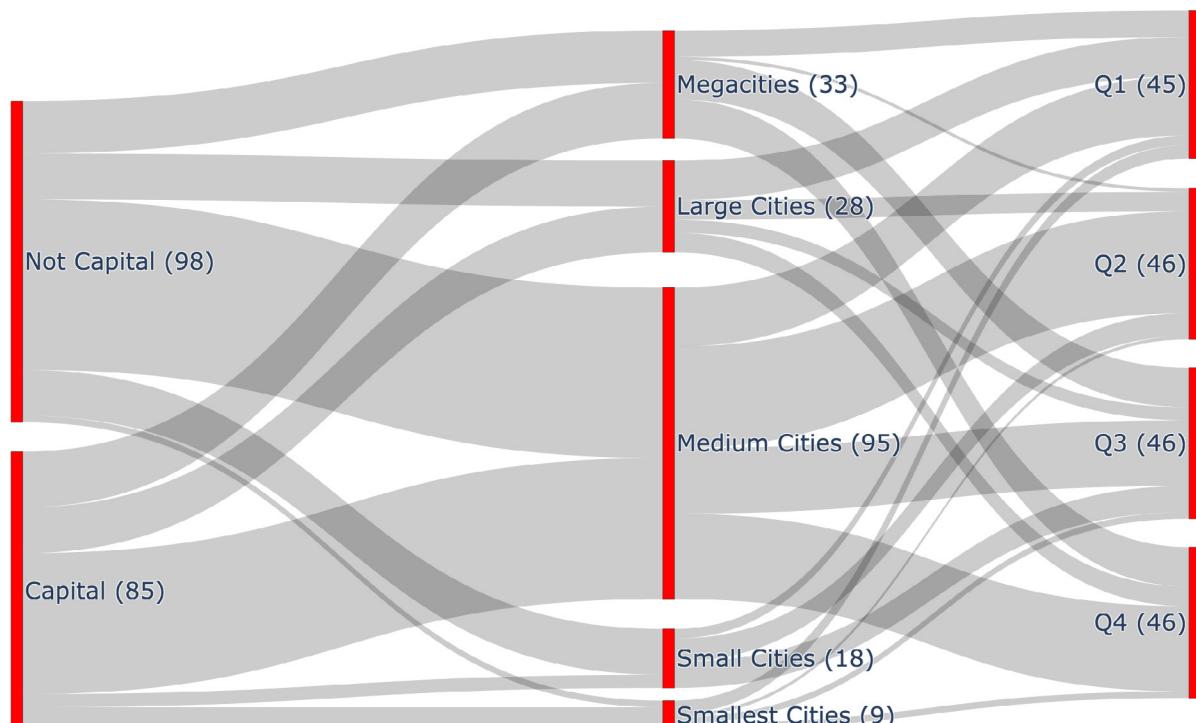
City	Regional position	Global position 2021	Global position 2022	Global position 2023
London - United Kingdom	1	1	1	1
New York - USA	2	2	2	2
Paris - France	3	4	3	3
Tokyo - Japan	4	3	4	4
Seoul - South Korea	5	6	14	13

Figure 9 below shows the distribution of cities according to whether or not they are national capitals (left), the size of their population (center), and their position in the ranking (Q1 to Q4, right). This figure is based on the same classification by rank used in **Figure 6** and incorporates the classification of cities by population size defined in this section.

The diagram shows the high proportion of *medium-sized cities* in the ranking, which are distributed equally between the group of capital and non-capital cities.

As for the performance of the cities, in the Q1 group (those that hold positions 1 to 45 in the ranking), there is a high proportion of cities classified as *medium-sized*, followed by a significant group of *large cities*. Similarly, in the top 45 of the overall ranking, we find a notable proportion of *smallest cities*, including Reykjavik, Basel, and Bern (which rank in the top 5 for this population category).

Figure 9. Type of city by size and rank



Cities in Motion: cluster analysis

The move towards smart and sustainable urban development is a growing global trend that is redefining how cities develop and respond to the challenges of the modern world. This transformation can be better understood through a cluster-based analytical approach that allows us to make sense of the complex landscape of urban innovation and sustainability. By grouping the cities according to their characteristics, such as population, geographic region, and whether or not they are national capitals, this analysis reveals key patterns and strategies in their evolution toward smart cities. We have identified six distinct clusters, each with a unique combination of advanced technology, green infrastructure, and an active tech job market. These groupings provide a detailed view of the current state of smart cities and their capacity to adapt to future demands. In the following sections, we take an in-depth look at the clusters identified and discuss what they mean for the future of smart city planning.

The names we have given to the clusters reflect common economic and development characteristics, most of which are shared by the cities in each group. The results underscore the importance of tailored smart technology deployment strategies that recognize the diversity and unique strengths of each city as it moves toward a more connected and sustainable future.

Cluster 1. Emerging cities facing dynamic challenges

The cities in this cluster face significant challenges in all dimensions, although a number of them perform somewhat better in international profile. Most of these cities, including Bangkok, São Paulo, and Nairobi, are addressing complex economic challenges and capitalizing on emerging opportunities, particularly by improving their technology infrastructure and transportation systems. A notable case is Tianjin, a Chinese city that ranks in the top 20 for mobility, but unfortunately occupies positions below 100 in all the other dimensions. This group is made up of Latin American, African, Asian, and Eastern European cities.

Cluster 2. Innovative centers with technological strengths

This cluster—made up mostly of cities in North America and Oceania, along with some in China and the United Arab Emirates—includes metropolises such as San Francisco, Chicago, and Boston that are recognized as economic leaders and considered benchmarks in the economy dimension and human capital development. Shanghai and Dubai, which also belong to this cluster, stand out for their significant investments in technology and their progressive future-oriented approach. Cities in this cluster often rank lower in dimensions such as environment and social cohesion. As for mobility and transportation, the US cities in this group have high traffic and commute time indexes and therefore rank low in this dimension, while the Chinese cities stand out for their advanced public transportation systems.

Cluster 3. Centers of sustainability and quality of life

Zurich, Munich, and Reykjavik belong to this cluster and stand out for the exceptional quality of life they offer residents and their commitment to sustainable practices and effective urban management. These cities are characterized by excellent management of the urban environment, with the focus on social cohesion, and have robust green infrastructure. They stand out in almost every dimension evaluated and perform particularly well in the areas of environment and social cohesion. Unlike those in previous cluster, these cities also have excellent transportation systems. This group consists mainly of European cities, including five in Spain: Murcia, Bilbao, A Coruña, Seville, and Málaga.

Cluster 4. Cities in transition with the potential for transformation

Many cities in this cluster, most of which are in Latin America, are in a period of transition, striving to strengthen their economies and technological capabilities while facing significant challenges related to the global environment. Despite lower rankings in several dimensions, they show a more positive performance in environment and social cohesion, which could reflect a strategic focus on these areas with the aim of overcoming current obstacles and maximizing their growth and development potential.

Cluster 5. Multidimensional global leaders

This cluster is made up of cities such as London, New York, and Tokyo, which are global leaders in many areas, from economic dynamism to technological advancement and environmental sustainability. Most of the cities in this group are recognized as powerful centers of global influence and are at the forefront of innovation in various fields. They are considered hubs of progress and development, setting international benchmarks for smart and advanced urban practices. Their leadership spans a wide range of areas, including efficient management of resources, implementation of cutting-edge technologies, and promotion of sustainable and responsible development, and they serve as a model and inspiration for cities around the world.

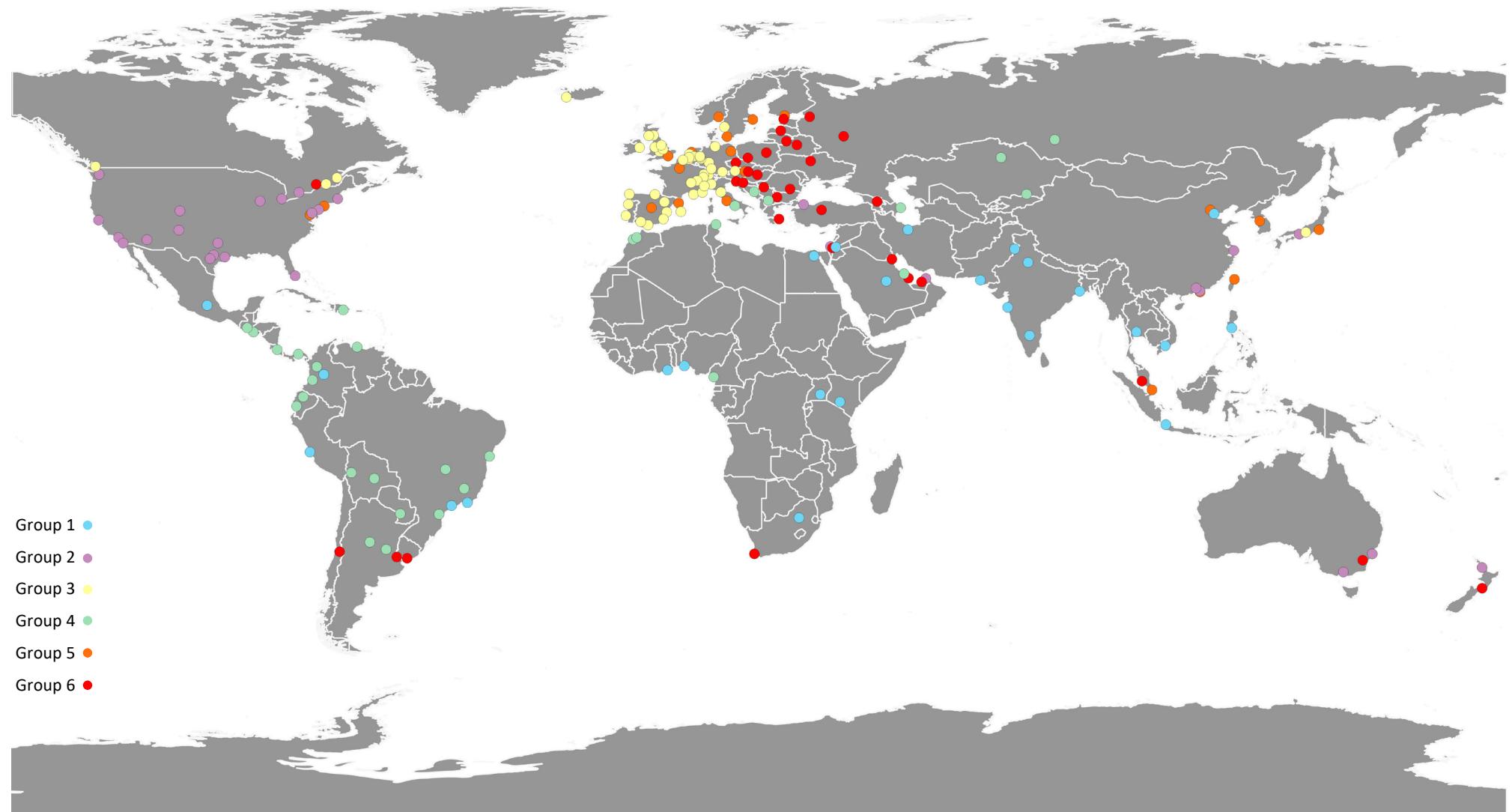
Cluster 6. Regional centers with international influence

This cluster includes regional urban centers with a notable international reach, such as Moscow, Buenos Aires, and Prague. While they do not have the global prominence of cities classified as multidimensional leaders, they show considerable potential in key areas such as urban mobility, effective governance, and social cohesion. These cities are focused on strengthening their sustainability and optimizing their technology infrastructure in line with smart city trends.

This group is made up mainly of cities in Eastern Europe, such as Warsaw, Budapest, and Sofia; Oceania, including Canberra and Wellington; and Latin America, represented by cities such as Buenos Aires and Montevideo. It also includes major urban centers in the Middle East and Asia, such as Abu Dhabi and Kuala Lumpur. All of these cities have a growing international profile and contribute significantly to innovation and development in their respective regions and beyond.

Figure 10 shows the city clusters on a world map.

Figura 10. City clusters



Cities in Motion: analysis of dimensions in pairs

This section examines the position of cities in relation to two dimensions simultaneously, with the aim of determining whether there is any correlation between them. Cities are also classified by population size using the categories defined in the previous section.

It is important to note that in this edition of the index, as mentioned above, all of our analyses related to the economy dimension have been particularly affected by current armed conflicts, especially the wars in Ukraine and Palestine. These events have caused significant destabilization in global and local economies, altering the results and trends observed in this study.

Figure 11 shows the dimensions of economy (on the y-axis) and social cohesion (on the x-axis). As the chart shows, cities with populations of under 600,000 (*smallest cities*)

perform very well in the social cohesion dimension and are located on the right side of the figure. In this position, we find cities such as Canberra, Reykjavik, Basel, and Wellington. In contrast, those classified as *megacities* appear on the left side, which corresponds to poor performance in this dimension. Here we find Hong Kong, Beijing, New Delhi, and Shenzhen, among others. The upper part of the figure shows the cities that perform well in the economy dimension, such as Tokyo, London, Los Angeles, San Francisco, and Beijing. At the other extreme, towards the bottom, we find the cities that rank lowest in this dimension, including Argentine cities hit by recurrent economic crises (Buenos Aires, Córdoba, and Rosario), as well as Guayaquil, Sarajevo, and Tehran. Caracas occupies a position at the bottom of both rankings and therefore appears in the lower left corner of the chart.

Figure 11. Cities according to the economy and social cohesion dimensions

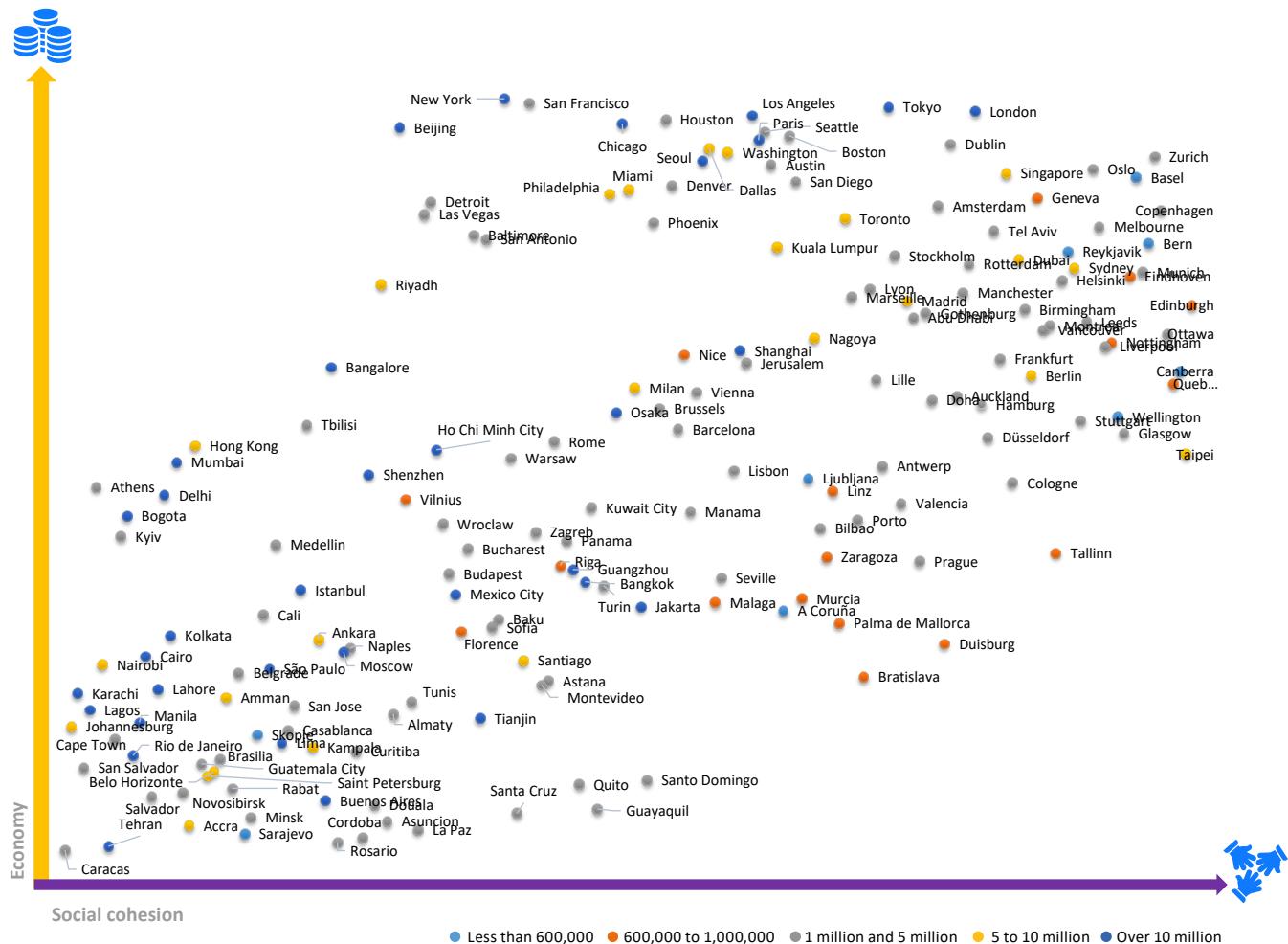


Figure 12 focuses on the economy and environment dimensions. Economy is shown on the y-axis and environment on the x-axis.

In the top left area, we find cities in Asia and America that perform well in the economy dimension but lag in environmental performance. Examples include Los Angeles, Beijing, Houston, San Francisco, and Kuala Lumpur. This suggests that intense economic development can be detrimental to the natural environment if sustainable practices are not integrated. In the lower left area are cities with poor economic and environmental performance, including Guatemala City, Accra, Kampala, and Manila. In the lower right corner are cities with limited economic development but good environmental man-

agement, such as Rosario, Córdoba, and Montevideo in Latin America, suggesting that a less developed economy may be more environmentally friendly. Finally, cities that perform strongly in both dimensions—including several European cities such as Zurich, Basel, London, Oslo, and Dublin, as well as Tokyo in Asia and Melbourne in Oceania—are clustered in the upper right corner. These cities show that it is possible to balance economic development with environmental responsibility.

Figure 12. Cities according to the economy and environment dimensions

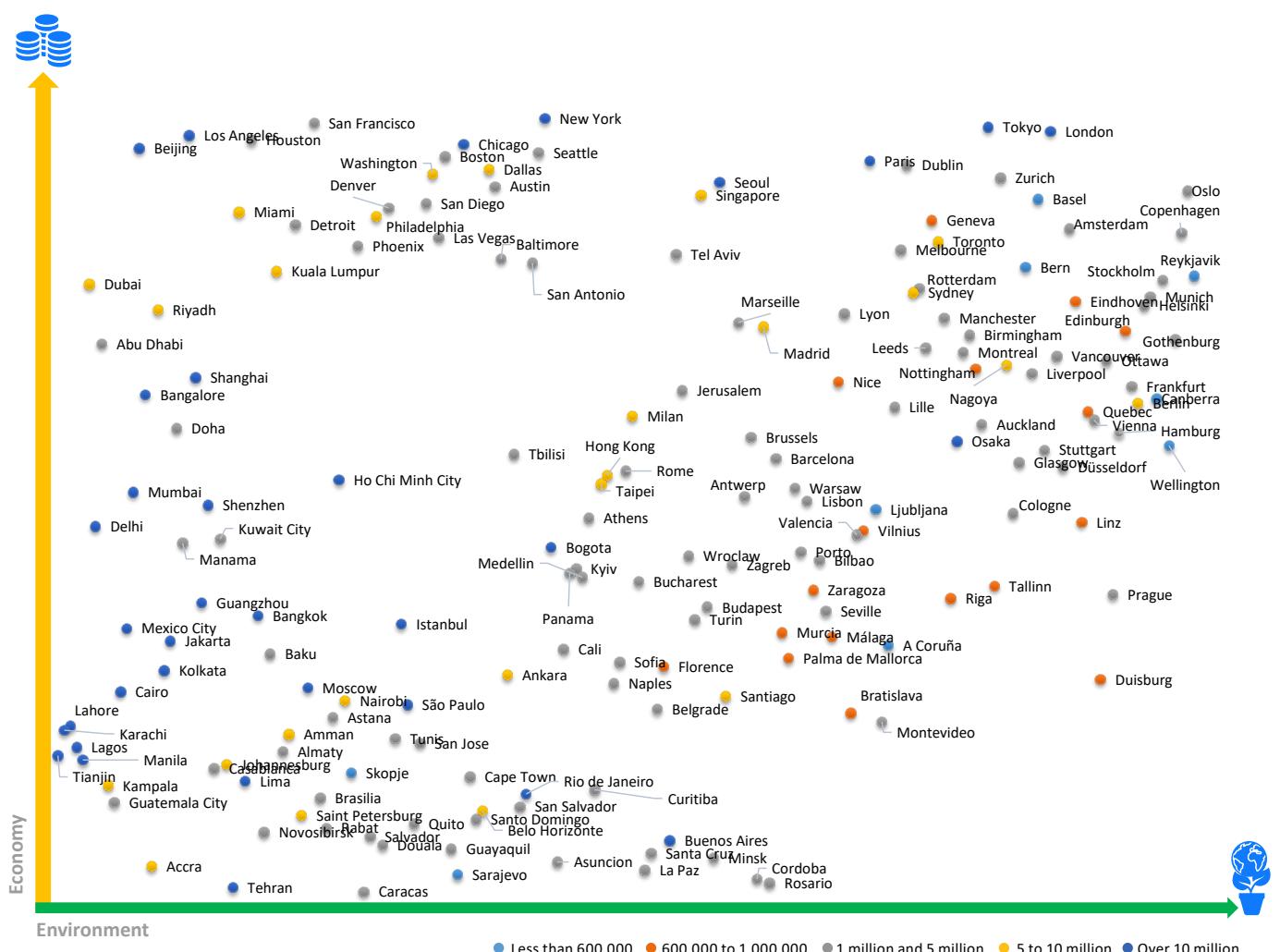


Figure 13 shows the dimensions of mobility and transportation (vertical axis) and environment (horizontal axis). Cities that perform strongly on mobility and transportation but poorly on the environment—including some Asian cities such as Beijing, Shanghai, Shenzhen, Guangzhou, Tianjin, and Moscow, and some US cities—are clustered in the upper left corner. In the upper right area, we find cities that stand out in both dimensions, including Swiss and Scandinavian cities such as Stockholm, Oslo, and Vienna, and German and other European cities, including London and Copenhagen. In contrast, cities with low levels of development in both the mobility and

transportation dimension and the environment dimension, such as Lagos, Calcutta, Manila, Lahore, and Karachi, appear in the lower left corner. Los Angeles is in this quadrant because of its high levels of pollution and congestion, reflected in high index values for CO₂ emissions and traffic. Finally, in the lower right area, we find cities that perform well on the environment but poorly on mobility and transportation, including Rosario and Córdoba in Argentina.

Figure 13. Cities according to the mobility and transportation and environment dimensions

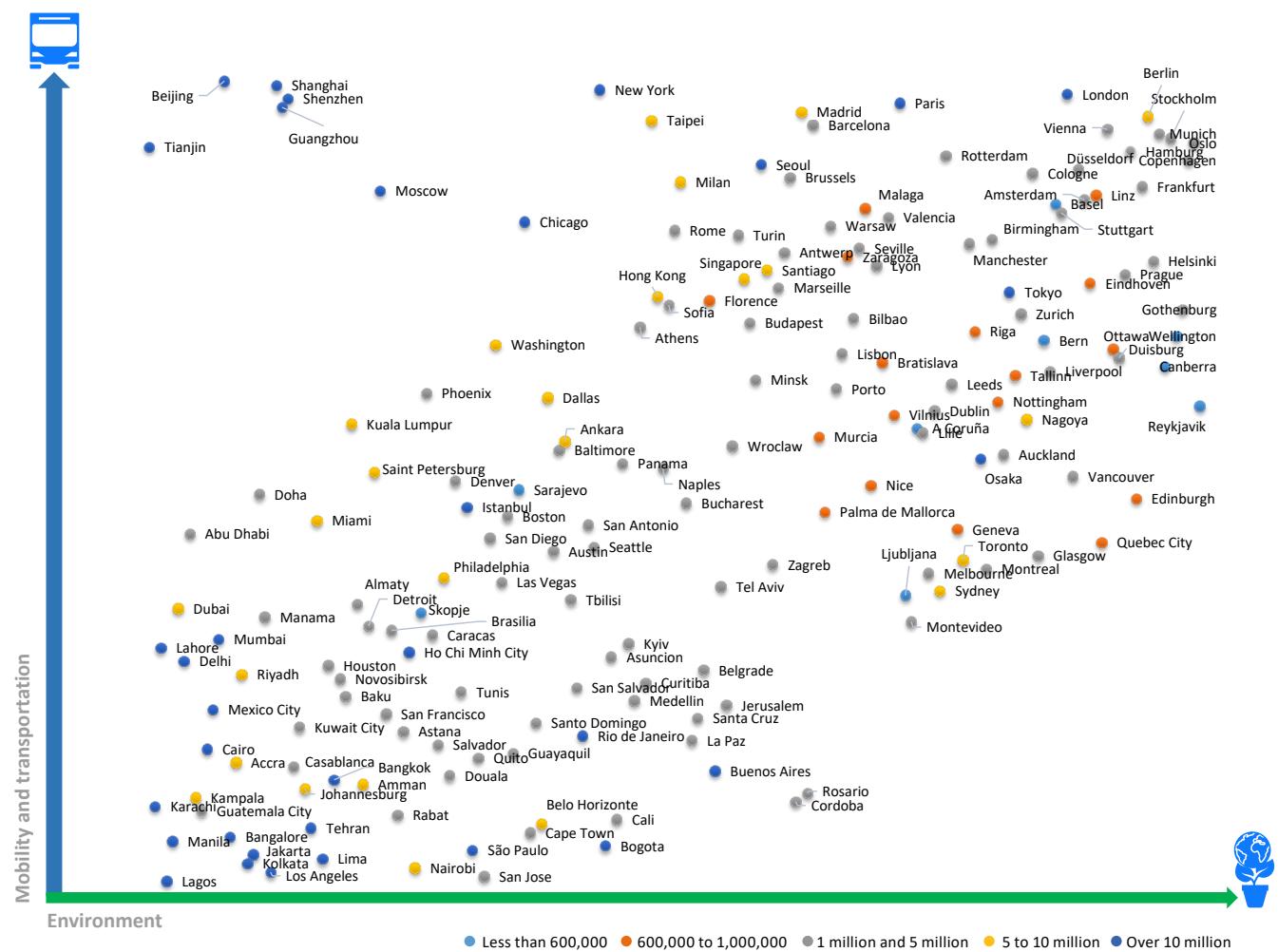


Figure 14 shows the relationship between the economy and human capital dimensions. As the chart shows, cities that perform well in the economy dimension are also well positioned in human capital. These cities, which appear in the upper right area of the chart, include US cities such as Boston, New York, Chicago, and Los Angeles; European cities such as London and Paris; and cities in Asia and Oceania such as Tokyo, Beijing, Seoul, and Melbourne. All of the cities in this part of the chart show good performance in both dimensions. Conversely,

there are a large number of cities that perform poorly in both of these dimensions, including Douala, Accra, Rabat, Asunción and Guayaquil. In other words, cities that perform poorly in the economy dimension are unlikely to perform well in human capital and vice versa, though there are exceptions, as in the case of Buenos Aires, which ranks relatively well in human capital but poorly in the economy dimension. Conversely, Tel Aviv, Riyadh and Dubai perform relatively well in the economy dimension but rather poorly in human capital.

Figure 14. Cities according to the economy and human capital dimensions

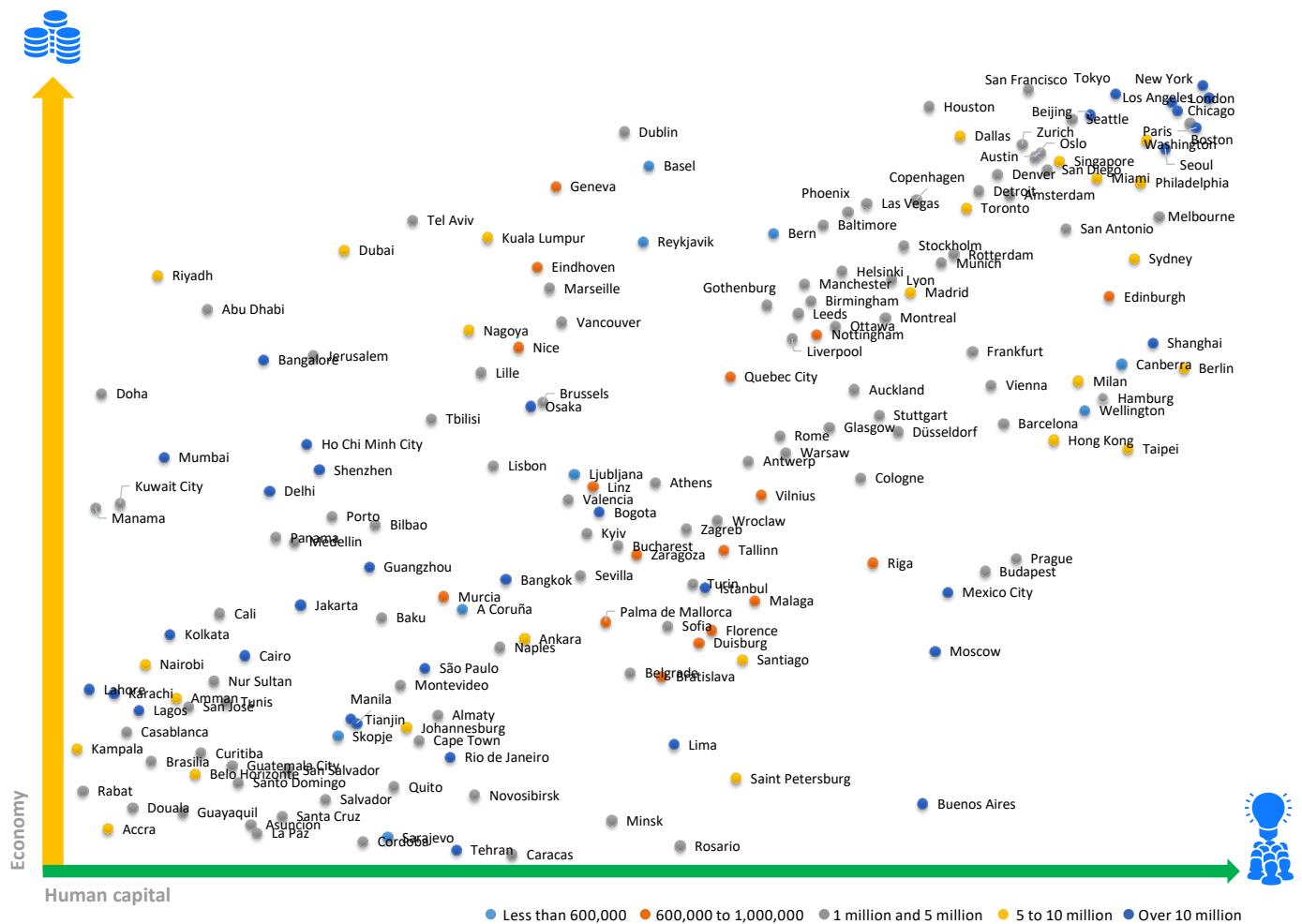


Figure 15 shows the relationship between the dimensions of technology and social cohesion. Broadly speaking, cities with larger populations perform well in technology but poorly in social cohesion. This holds true for cities such as Hong Kong, Beijing, Shenzhen, and Istanbul. In the upper right area, we find the cities that achieve good performance in both dimensions. This group includes Dubai, Singapore, Tokyo, and Abu Dhabi. Furthermore, the *smallest cities* (i.e., those with a population of

less than one million) show relatively good performance in social cohesion. This is the case of Eindhoven, Edinburgh, Bern, Geneva, and Basel. Finally, in the lower left quadrant we find the cities that perform poorly in both dimensions, including Caracas, Lagos, and Lahore, which are in emerging countries.

Figure 15. Cities according to the technology and social cohesion dimensions

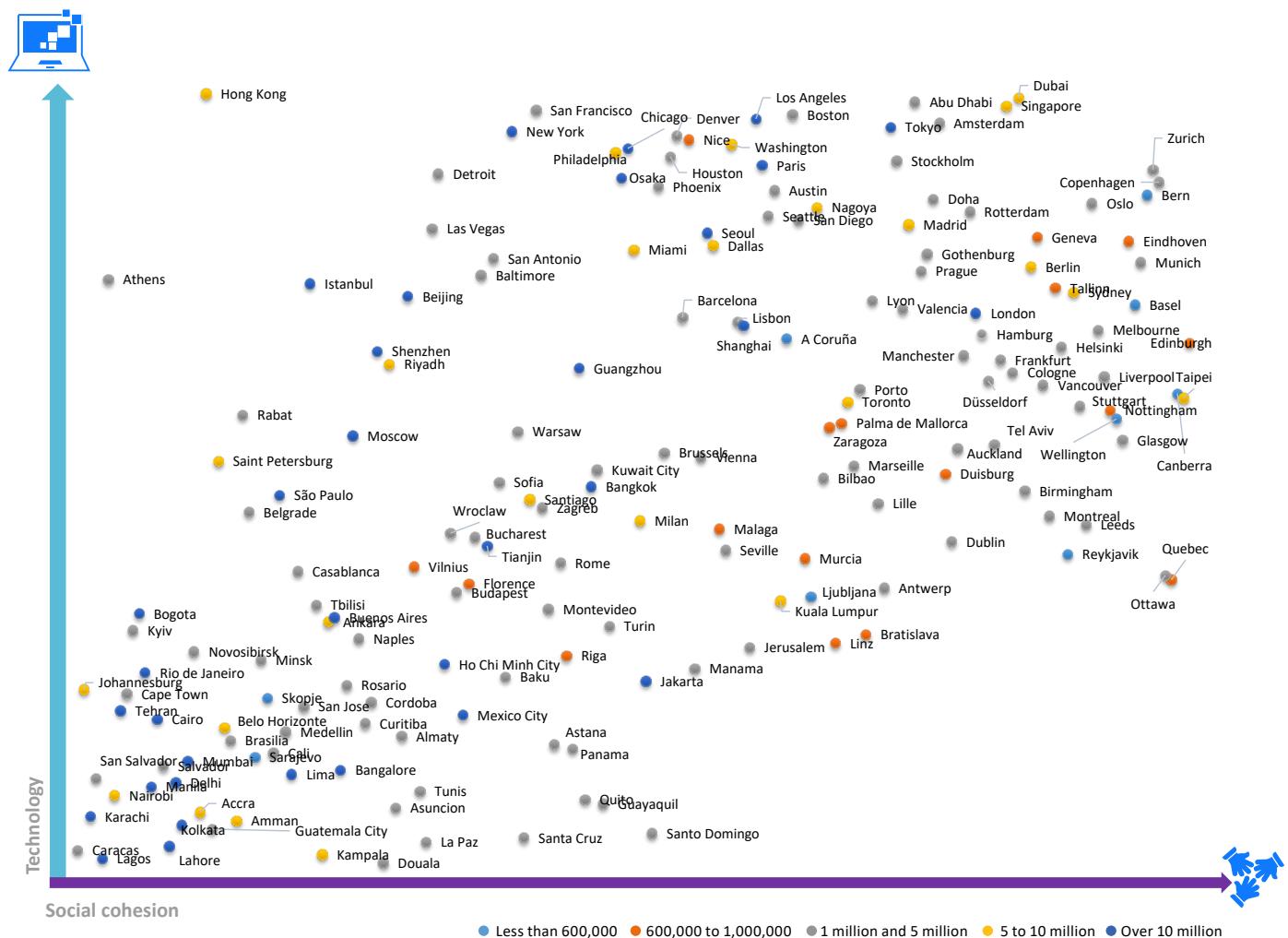


Figure 16 shows how the dimensions of economy and international profile are interconnected in cities at the global level. Historically, this analysis has revealed a clear trend: Cities tended to excel in both of these dimensions or perform poorly in both. This pointed to a clear correlation between a robust economy and broad global influence. In recent years, however, global events such as the pandemic and armed conflicts have significantly altered this pattern. The different ways in which individual cities have adapted to these constant changes have led to marked differences in their economic performance. As a result, we have begun to see an emerging trend: Defying the traditional pattern, some cities are gaining a strong international profile despite their poor economic performance. Buenos Aires, Istanbul, and São Paulo are

prominent examples of cities in this group that have a strong international presence despite the economic challenges they face. Interestingly, none of the leading cities in the economy dimension are underperforming in terms of international profile. Cities such as New York, Los Angeles, Chicago, Houston, Paris, London, Tokyo, Beijing, and Singapore show high performance in both dimensions. In contrast, La Paz, Sarajevo, and Asunción are among those that perform poorly in both dimensions.

Figura 16. Cities according to the economy and international profile dimensions

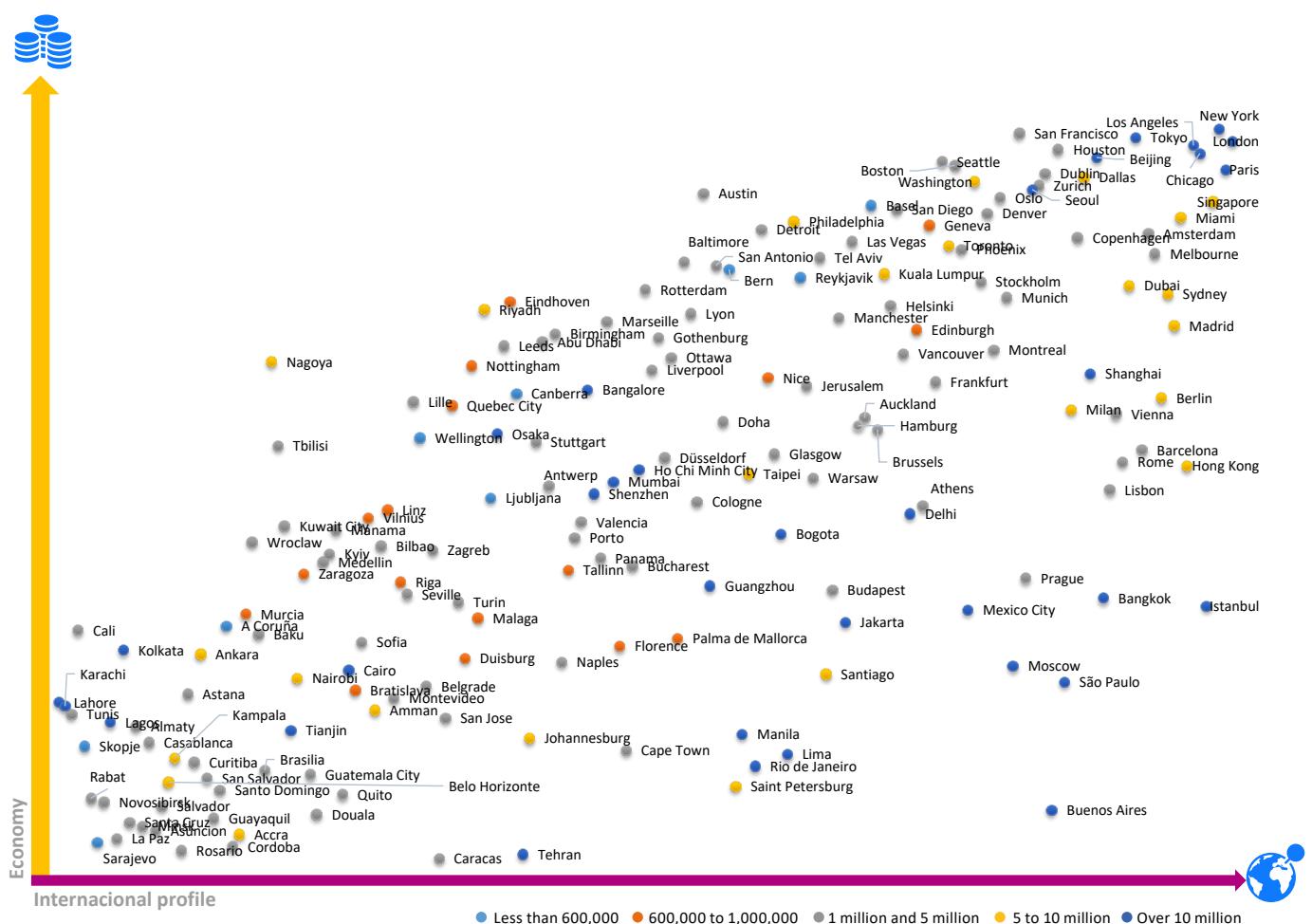
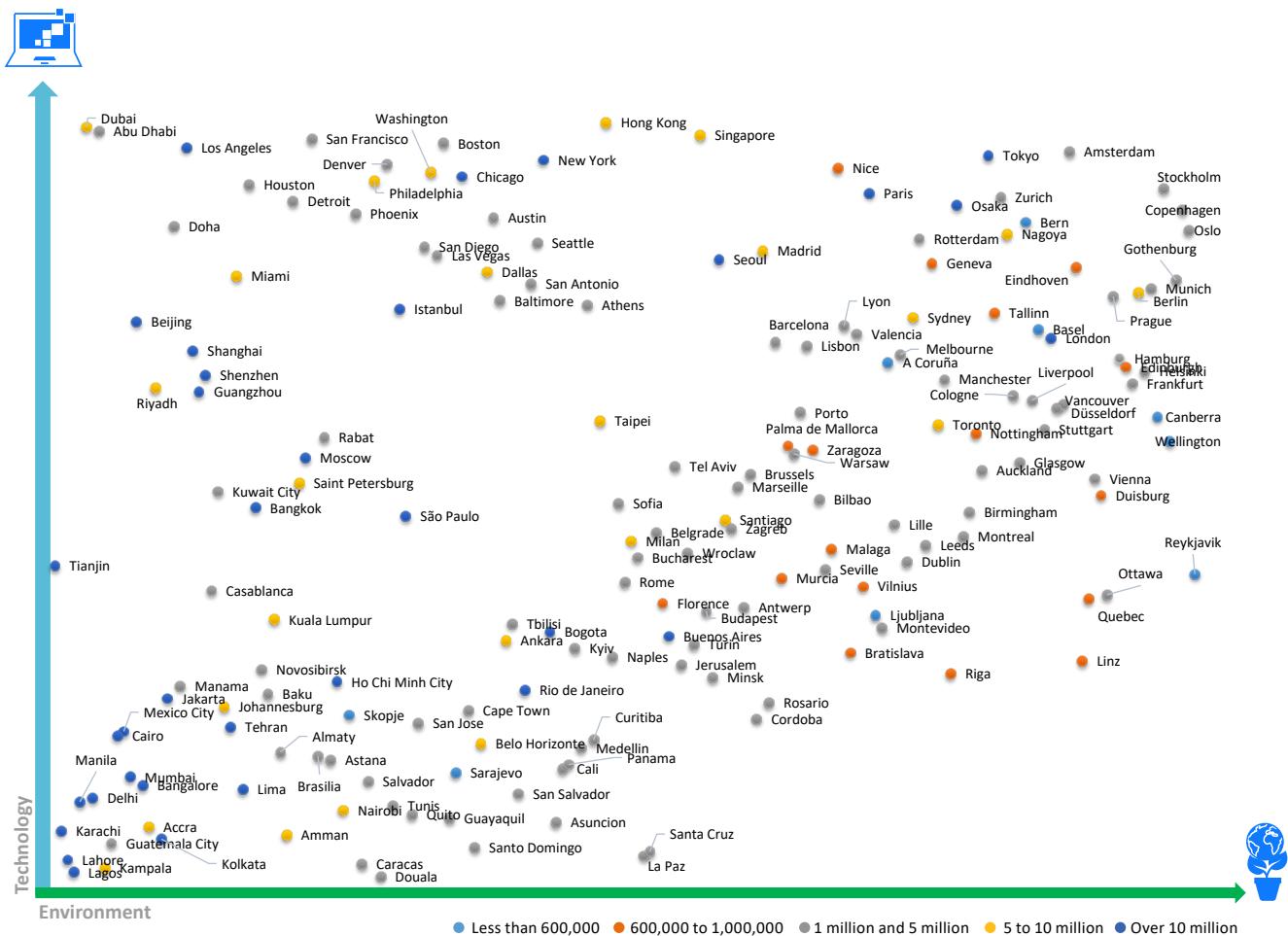


Figure 17 shows how the technology and environment dimensions are correlated in different cities, which are distributed across four quadrants. Cities with advanced technological development but environmental deficiencies appear in the upper left quadrant. This group includes US cities such as Los Angeles, Houston, San Francisco, and Philadelphia, as well as Middle Eastern cities such as Dubai and Abu Dhabi. Cities that perform poorly in both dimensions, such as Lahore, Lagos, Guatemala City, and Kampala, are clustered in the lower left

quadrant. In contrast, cities that perform well in both dimensions—with notable examples such as Amsterdam, Copenhagen, Stockholm, Zurich, and Tokyo—appear in the upper right quadrant. Finally, in the quadrant that combines good environmental performance with relatively limited technological development, we find cities such as Linz and Riga, and the South American cities of Rosario and Córdoba.

Figure 17. Cities according to the technology and environment dimensions



Cities in Motion: a dynamic analysis

To evaluate growth trends and the potential of the cities, we have created a chart that aims to capture these points. **Figure 18** shows the current position of each of the cities included in the **CIMI** index (x-axis) and their trend (y-axis). We calculated the second value based on the change (in terms of positions) that the cities included in the ranking underwent from 2021 to 2023. The cities in the upper part of the chart are the ones that have gained positions; those in the bottom half are the ones that have fallen in the ranking. The cities around the middle level are the ones whose position in the ranking did not change significantly over the years analyzed.

The area of the chart has been divided into four quadrants according to the type of city: consolidated, challengers, high-potential, and vulnerable.

The first group, the consolidated cities (lower right quadrant), includes those that have a mid-to-high position in the overall ranking but either do not change over the period or drop one or more positions. This group is made up of cities from different geographic regions. Cities that dropped several positions include Hong Kong, Wellington, and Shanghai. The cities at mid-level on the right side

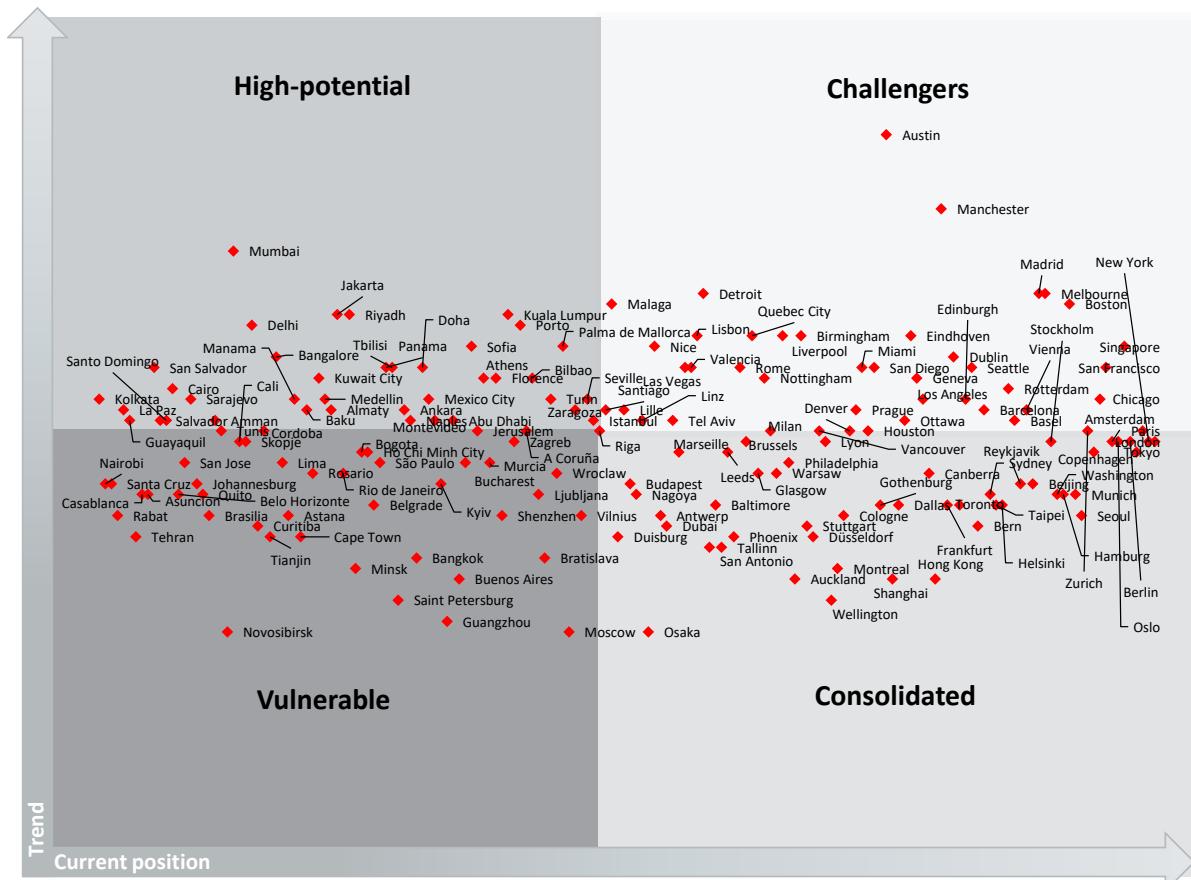
of the chart are the ones that hold good positions in the ranking and whose rank has remained fairly stable. This is the case, for example, of London, Paris, Berlin, Oslo, and Stockholm (Europe); Tokyo (Asia); and New York, Chicago, and Houston (North America).

The second group (upper right quadrant) is made up of challenger cities—that is, cities that are rapidly improving their position and that already occupy a mid-to-high position in the ranking. Cities in this group include Manchester, Austin, and Boston.

The third group is made up of high-potential cities that currently hold a mid-to-low position in the index but are advancing very rapidly (upper left quadrant). In this group, we find cities such as Jakarta, Bombay, Riyadh, and New Delhi.

The last group includes cities that occupy a vulnerable position (lower left quadrant), are growing at a slower pace than the rest, and hold mid-to-low positions in the ranking. This is the case of Canton, Novosibirsk, and Saint Petersburg, among others.

Figure 18. Cities by CIMI position and trend, 2021–23



The information presented in the figure above is supplemented with an analysis of variance with respect to the dimensions considered. In other words, the aim is not only to understand how much cities have grown, but also how they have grown. To this end, the variation across the nine dimensions was calculated for each of the cities shown in **Figure 19** below. The cities at the bottom of the chart occupy similar positions in all the dimensions and therefore have a more homogeneous distribution, either because they are stalled or because they are balanced. In contrast, those at the top stand out in one or more dimensions but occupy a relatively low position in others. This information, combined with the rank of each city, allows us to identify four categories.

The first (lower right quadrant) is made up of what we call *balanced* cities—that is, cities positioned in the mid-upper part of the chart that present relatively high values in all the dimensions. This category includes Amsterdam, Copenhagen, Oslo, Zurich, Manchester, London, and Stockholm.

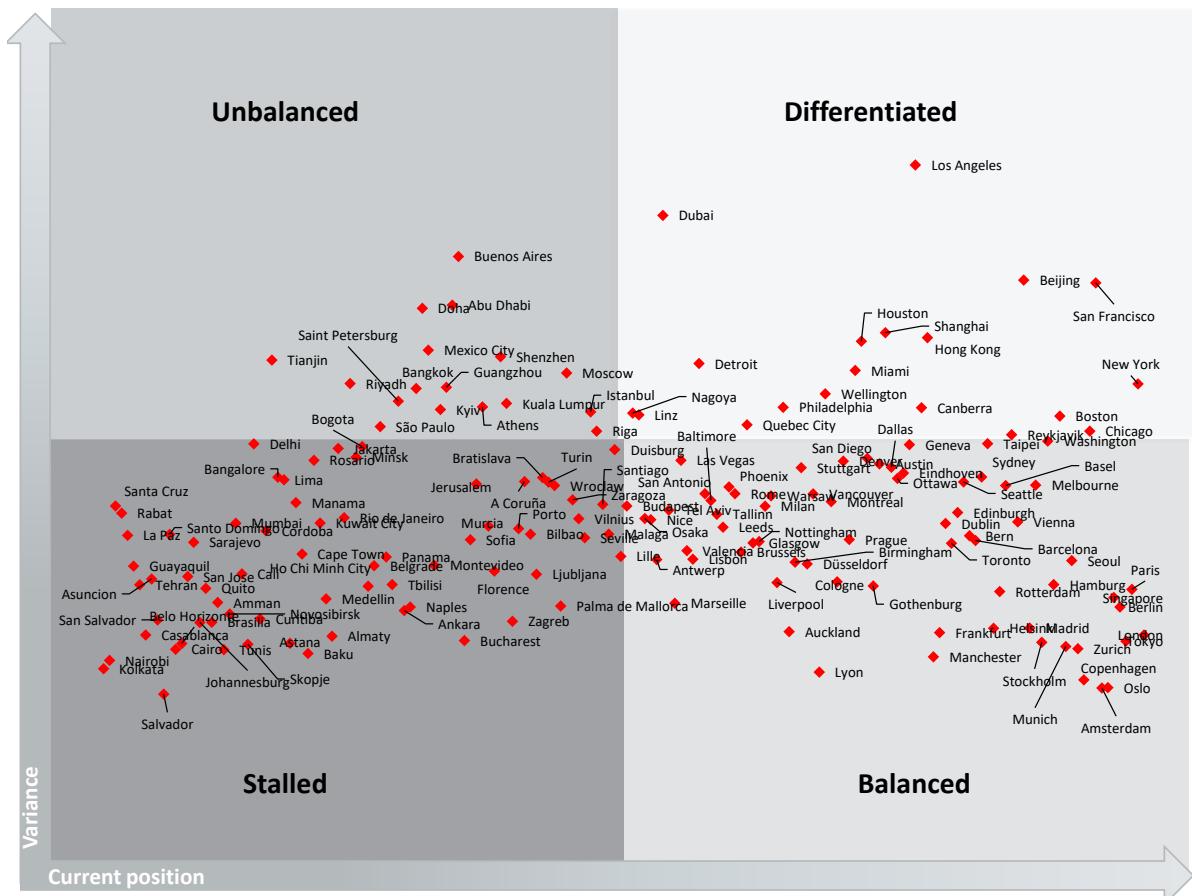
The second category (upper right quadrant) is made up of what we call *differentiated* cities—that is, cities that occupy high positions in the ranking and obtain very

good results in several dimensions but relatively poor results in others. Los Angeles, for example, ranks among the top cities in economy, human capital, governance, and technology, but near the bottom in environment and mobility and transportation. It is the city with the greatest variability across dimensions. Another example is Dubai, which ranks near the top in urban planning and technology but very low in human capital and environment. In the same category are cities such as Houston, Shanghai, and Hong Kong.

The third (upper left) quadrant corresponds to cities that we call *unbalanced*—that is, cities that are at the bottom of the ranking but stand out in a particular dimension. This is the case of Tianjin, which, although it ranks below 100th in most dimensions, stands out in some, such as mobility and transportation. Other cities in this category are Buenos Aires, Mexico City, and Doha.

Finally, the fourth group (lower left quadrant) is made up of what we call *stalled* cities, which perform poorly in all, or almost all, of the dimensions analyzed. An example is Astana, the capital of Kazakhstan, which ranks below 100th position in all nine dimensions. Other examples include El Salvador, Calcutta, and Nairobi.

Figure 19. Cities by current position and variance





Recommendations and conclusions

The **CIMI 2024** index provides a comprehensive view of the challenges and opportunities facing cities in an ever-changing global context. Despite the recent evolution of the pandemic, cities continue to adapt to new economic and social challenges such as rising inflation, increasing energy prices, and geopolitical tensions, including the conflicts in Ukraine and Palestine. These factors highlight the need for strategic and proactive urban management.

In this context, the following are some key considerations and suggestions:

- 1. Addressing economic challenges.** Cities must proactively address current economic challenges, such as inflation and rising energy costs. This means implementing innovative and sustainable economic policies that promote growth while mitigating adverse effects on citizens, especially the most vulnerable.
- 2. Responding to social and geopolitical crises.** Global conflicts, such as those in Ukraine and Palestine, require an urban response that goes beyond traditional diplomacy. Cities need to promote peace and stability through solidarity and support for affected communities, while preparing for potential impacts such as refugee flows.
- 3. Innovation and technological adaptation.** Cities need to prioritize technological innovation and adaptation to address emerging challenges. This includes using ICT to improve the efficiency of city services, implementing smart solutions for resource management, and promoting digital inclusion. By integrating these technologies, cities can improve their crisis response capabilities, optimize resource management, and encourage greater citizen participation.

- 4. Learning from global projects.** Cities can learn from each other by looking at successful projects around the world. From clean technology implementation to inclusive economic development strategies, there is a wealth of experience that can be adapted and applied locally to address specific challenges.
- 5. Balance between economic growth, social justice, and sustainability.** It is essential to seek a balance between economic growth, social equity, and environmental sustainability. Cities must pioneer development models that promote economic prosperity without sacrificing social justice or the health of the planet.
- 6. Use of the CIMI for urban improvement.** Despite its limitations, we believe the CIMI is a valuable tool for city managers. It can be used to identify strengths and areas for improvement, and to draw policy inspiration from successful projects implemented in other cities. Sharing practices can encourage innovative and adaptive solutions.

In short, the cities of the future face significant challenges that require innovative management and vision. The key is to learn from global experiences, adapt them to local contexts, and pursue development that is economically viable, socially just, and environmentally sustainable. The **CIMI 2024** provides a basis for reflection and action, promoting a better quality of life for all urban dwellers.

Appendix 1. Indicators

No.	Indicator	Description / Unit of measurement	Source	Dimension
1	Secondary and higher education	Proportion of population with secondary and higher education.	Euromonitor	Human capital
2	Schools	Number of public and private schools in the city.	OpenStreetMap	Human capital
3	Business schools	Number of business schools in the city included in the <i>Financial Times</i> TOP 100.	<i>Financial Times</i>	Human capital
4	Expenditure on education	Annual private expenditure on education per capita.	Euromonitor	Human capital
5	Expenditure on leisure and recreation	Consumer expenditure on leisure and recreation as a percentage of GDP.	Euromonitor	Human capital
6	Expenditure on leisure and recreation per capita	Annual consumer expenditure on leisure and recreation per capita.	Euromonitor	Human capital
7	Student mobility	International flow of mobile students at the tertiary level. Number of students.	UNESCO	Human capital
8	Museums and art galleries	Number of museums and art galleries in the city.	OpenStreetMap	Human capital
9	Number of universities	Number of TOP 500 universities.	QS Top Universities	Human capital
10	Theaters	Number of theaters in the city.	OpenStreetMap	Human capital
11	Female-friendly	This variable indicates whether a city provides a friendly environment for women (on a scale of 1 to 5). Cities with a value of 1 have a more hostile environment for women; those with a value of 5 are very female-friendly.	Nomad List	Social cohesion
12	Hospitals	Number of public and private hospitals in the city. Includes health centers.	OpenStreetMap	Social cohesion
13	Crime rate	Estimation of the general level of crime in a city.	Numbeo	Social cohesion
14	Slavery Index	The variable represents the national government's response to situations of slavery in the country. The countries that rank highest are the ones dealing with the problem most effectively.	Walk Free Foundation	Social cohesion
15	Happiness Index	Countries with a higher value are those where the level of overall happiness is higher.	World Happiness Index	Social cohesion
16	Gini Index	Index values range from 0 to 100. A value of 0 expresses perfect equality of income distribution, and 100, maximal inequality.	Euromonitor	Social cohesion
17	Global Peace Index	This index measures the level of peace/violence in a country or region. Countries with a high level of violence rank lowest.	Centre for Peace and Conflict Studies, University of Sydney	Social cohesion
18	Health Care Index	Estimation of the overall quality of the health care system, health care professionals, equipment, costs, etc.	Numbeo	Social cohesion
19	LGBTQ+ friendly	This variable indicates whether a city provides a friendly environment for the LGBTQ+ community (on a scale of 1 to 5). Cities with a value of 1 have a more hostile environment for this community; those with a value of 5 are very LGBTQ+ friendly.	Nomad List	Social cohesion

Appendix 1 (continued)

No.	Indicator	Description / Unit of measurement	Source	Dimension
20	Price of property	Property price as a percentage of income. Calculated as the ratio of the average price of a home to average annual disposable household income.	Numbeo	Social cohesion
21	Female employment rate	Rate of female employment in the public sector. Value from 0 to 1.	International Labor Organization	Social cohesion
22	Death rate	Death rate per 100,000 city inhabitants.	Euromonitor	Social cohesion
23	Unemployment rate	Unemployment rate (number of unemployed/labor force).	Euromonitor	Social cohesion
24	Murder rate	Murder rate per 100,000 city inhabitants.	Nomad List	Social cohesion
25	Suicide rate	Suicide rate per 100,000 city inhabitants.	Nomad List	Social cohesion
26	Terrorism	Number of terrorist incidents in the city in the last three years.	Global Terrorism Database, University of Maryland	Social cohesion
27	Racial tolerance	Index of racial tolerance in a city.	Nomad List	Social cohesion
28	Unicorn companies	Number of unicorn companies in the city.	CB Insight	Economy
29	Ease of starting a business	Top positions in the ranking are held by cities that have a more favorable regulatory environment for setting up and operating a local business.	World Bank	Economy
30	Global Startup Ecosystem Index (GSEI)	<i>Ranking of startup ecosystems.</i>	StartupBlink	Economy
31	Mortgage	Mortgage as a percentage of income is the monthly mortgage cost as a proportion of household income (the lower the better).	Numbeo	Economy
32	Motivation for individuals to undertake early-stage entrepreneurial activity	The percentage of opportunity-driven early-stage entrepreneurs divided by the percentage of necessity-driven early-stage entrepreneurs.	Global Entrepreneurship Monitor	Economy
33	Number of company headquarters	Number of headquarters of publicly traded companies.	Globalization and World Cities (GaWC)	Economy
34	Number of Fortune 500 companies	Number of Fortune 500 companies present in the city.	Fortune 500	Economy
35	GDP	Gross domestic product in millions of US dollars.	Euromonitor	Economy
36	Estimated GDP	Projected growth in gross domestic product for the next year.	Euromonitor	Economy
37	GDP per capita	Gross domestic product per capita.	Euromonitor	Economy
38	Purchasing power	Purchasing power in buying goods and services in the city (based on the average salary), compared to that of New York City residents. If local purchasing power is 40, this means that inhabitants with an average salary can afford to buy 60% less goods and services than New York City residents with an average salary.	Numbeo	Economy

Appendix 1 (continued)

No.	Indicator	Description / Unit of measurement	Source	Dimension
39	Productivity	Labor productivity calculated as GDP/employed population (in thousands).	Euromonitor	Economy
40	Hourly wage in US dollars	Hourly wage in the city in US dollars.	Euromonitor	Economy
41	Time required to start a business	Number of calendar days needed to complete the procedures to legally operate a business.	World Bank	Economy
42	Bitcoin legal	Whether or not Bitcoin is legal in the city.	Nomad List	Governance
43	ISO 37120 certification	Whether or not the city has ISO 37120 certification. Certified cities are committed to improving urban services and quality of life. This variable is coded from 0 to 6. The highest value is assigned to the cities that have been certified longest. A value of 0 is assigned to cities that are not certified.	World Council on City Data (WCCD)	Governance
44	Government buildings	Number of government buildings and premises in the city.	OpenStreetMap	Governance
45	Embassies	Number of embassies in the city.	OpenStreetMap	Governance
46	Public sector employment	Percentage of employed population working in public administration and defense; education; health; community, social and personal service activities; and other activities.	Euromonitor	Governance
47	E-Participation Index	This index supplements the E-Government Development Index (EGDI) and focuses on the use of online services to facilitate provision of information by governments to citizens ("e-information sharing"), interaction with stakeholders ("e-consultation"), and engagement in decision-making processes ("e-decision-making").	United Nations	Governance
48	Human Capital Index	This variable reflects the human capacity dimension, which is one of the three dimensions that make up the EGDI (online service, telecommunication connectivity, and human capacity).	United Nations	Governance
49	Strength of legal rights index	This index measures the degree to which collateral and bankruptcy laws protect the rights of borrowers and lenders and thus facilitate access to loans. The index ranges from 0 (low) to 12 (high), with higher scores indicating that laws are better designed to expand access to credit.	World Bank	Governance
50	Telecommunication Infrastructure Index	This variable reflects the development status of telecommunication infrastructure, which is one of the three dimensions that make up the EGDI (online service, telecommunication connectivity, and human capacity).	United Nations	Governance
51	Corruption Perceptions Index	Countries with values close to 0 for this variable are perceived as very corrupt, and those with values close to 100 are perceived as very transparent.	Transparency International	Governance

Appendix 1 (continued)

No.	Indicator	Description / Unit of measurement	Source	Dimension
52	Online Service Index	This variable reflects the scope and quality of online services, which is one of the three dimensions that make up the EGDI (online service, telecommunication connectivity, and human capacity).	United Nations	Governance
53	Research offices	Number of research and technology offices in the city.	OpenStreetMap	Governance
54	Open data platform	Whether or not the city has an open data system.	CTIC Foundation and Open World Bank	Governance
55	Democracy Index	The top-ranked countries are the ones considered most democratic.	<i>Economist Intelligence Unit</i>	Governance
56	Reserves	Total reserves in millions of current dollars. City-level estimate based on population.	World Bank	Governance
57	Reserves per capita	Reserves per capita in millions of current dollars.	World Bank	Governance
58	CO ₂ emissions	Carbon dioxide emissions from fossil fuel use and cement production. Measured in kilotons.	World Bank	Environment
59	Methane emissions	Methane emissions caused by human activities such as agriculture and industrial methane production. Measured in kilotons of CO ₂ equivalent.	World Bank	Environment
60	Environmental Performance Index	Environmental Performance Index (from 1 [poor] to 100 [good]).	Yale University	Environment
61	CO ₂ Emission Index	Index of carbon dioxide emissions.	Numbeo	Environment
62	Pollution Index	Index of pollution.	Numbeo	Environment
63	PM ₁₀	A measure of particles in the air with a diameter of less than 10 microns (μm). Annual mean.	Global Residence Index	Environment
64	PM _{2.5}	A measure of particles in the air with a diameter of less than 2.5 μm. Annual mean.	IQAir	Environment
65	Percentage of population with access to water supply	Percentage of the population with reasonable access to an appropriate quantity of water resulting from an improvement in the supply.	World Bank	Environment
66	Renewable water resources	Renewable water resources per capita.	FAO	Environment
67	Solid waste	Average amount of municipal solid waste generated annually per person (kg/year).	Waste Management for Everyone	Environment
68	Climate vulnerability	Risk to the city due to climate change.	National Geographic	Environment
69	Bicycle, moped or scooter rental service	Whether or not the city has a bicycle, moped or scooter rental service.	NUMO	Mobility and transportation
70	Bike sharing	Number of shared bicycles in the city.	Bike-Sharing World Map	Mobility and transportation
71	Metro stations	Number of metro stations in the city.	Metrobits	Mobility and transportation
72	Traffic Inefficiency Index	This index estimates traffic inefficiencies. High values represent high driving inefficiencies, such as long travel times.	Numbeo	Mobility and transportation

Appendix 1 (continued)

No.	Indicator	Description / Unit of measurement	Source	Dimension
73	Traffic and congestion index	Index of traffic and congestion in the city.	Numbeo	Mobility and transportation
74	Exponential traffic index	This index is estimated by considering time spent in traffic. It is assumed that travel time dissatisfaction increases exponentially beyond 25 minutes.	Numbeo	Mobility and transportation
75	Metro lines	Number of metro lines in the city	Metrobits	Mobility and transportation
76	Length of metro system	Length of the metro system in the city.	Metrobits	Mobility and transportation
77	Percentage of households with bicycles	Percentage of households with bicycles.	Euromonitor	Mobility and transportation
78	High-speed train	Binary variable that shows whether the city has a high-speed train or not.	OpenRailwayMap	Mobility and transportation
79	Vehicles in the city	Number of commercial vehicles in the city.	Euromonitor	Mobility and transportation
80	Flights	Number of inbound flights (air routes) in a city.	OpenFlights	Mobility and transportation
81	Bicycles	Number of bike-rental or bike-sharing points, based on docking stations where they can be picked up and dropped off.	OpenStreetMap	Urban planning
82	Bike Advance	Whether or not the city has a bike-sharing system.	Bike Share Map	Urban planning
83	Buildings	The number of completed buildings in a city. The count includes structures such as high-rises and towers, but excludes other miscellaneous structures and buildings of varying status (under construction, proposed, etc.).	Skyscraper Source Media	Urban planning
84	Electric charging stations	Electric car charging points in the city.	OpenStreetMap	Urban planning
85	Percentage of the urban population with adequate sanitation services	Percentage of the urban population that uses at least basic sanitation services—that is, improved sanitation facilities that are not shared with other households.	World Bank	Urban planning
86	Artificial intelligence (AI) projects	Whether or not the city has AI projects.	AI Localism	Urban planning
87	Percentage of high-rises	Percentage of buildings classified as high-rises. A high-rise is a multi-floored building of at least 12 stories or 35 m in height (115 feet).	Skyscraper Source Media	Urban planning
88	Traffic accident mortality rate	Number of deaths in traffic accidents per 100,000 inhabitants.	World Health Organization	Urban planning
89	Number of passengers per airport	Annual number of passengers per airport in thousands.	Euromonitor	International profile
90	Hotels	Number of hotels per capita.	OpenStreetMap	International profile
91	Restaurant Price Index	The Restaurant Price Index compares the price of meals and drinks in restaurants and bars in a city to prices in New York City.	Numbeo	International profile

Appendix 1 (continued)

No.	Indicator	Description / Unit of measurement	Source	Dimension
92	McDonald's	Number of McDonald's outlets in the city.	OpenStreetMap	International profile
93	Number of congresses and meetings	Number of international congresses and meetings held in a city.	International Congress and Convention Association	International profile
94	Mobile broadband	Active mobile broadband subscriptions.	International Telecommunication Union	Technology
95	Innovation Cities Index (ICI)	This index is a ranking of leading cities in innovation.	2thinknow	Technology
96	Internet	Percentage of households with Internet access.	Euromonitor	Technology
97	Computers/PCs	Percentage of households with a personal computer.	Euromonitor	Technology
98	Mobile phone penetration rate	Number of mobile phones per 100 inhabitants.	International Telecommunication Union	Technology
99	Social media platforms	Registered X users in a city (in thousands of individuals) + number of registered LinkedIn members in the city.	X and LinkedIn	Technology
100	Broadband subscriptions	Broadband subscriptions per 100 inhabitants.	International Telecommunication Union	Technology
101	Telephony	Percentage of households with some kind of telephone service.	Euromonitor	Technology
102	Internet speed	Fixed-line Internet speed in megabytes per second by country.	World Population Review	Technology
103	Mobile speed	Mobile speed in megabytes per second (country).	World Population Review	Technology
104	WiFi hotspots	This variable represents options for connecting to the Internet in a city.	WiFi Map app	Technology
105	Population	Number of inhabitants.	Euromonitor	Variable used to make estimations

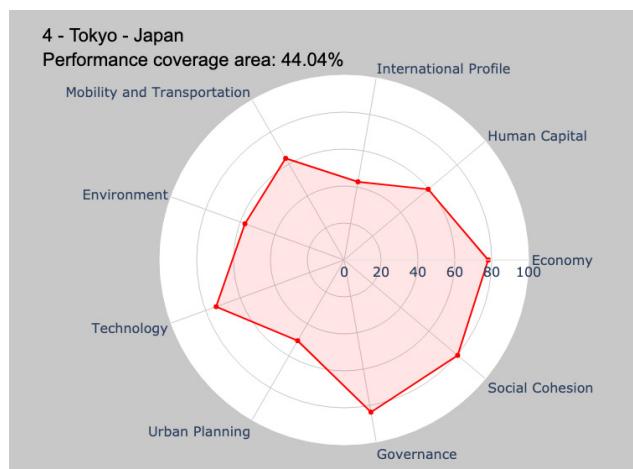
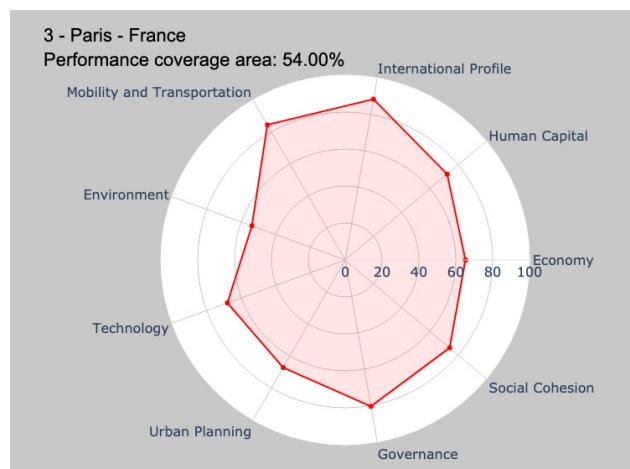
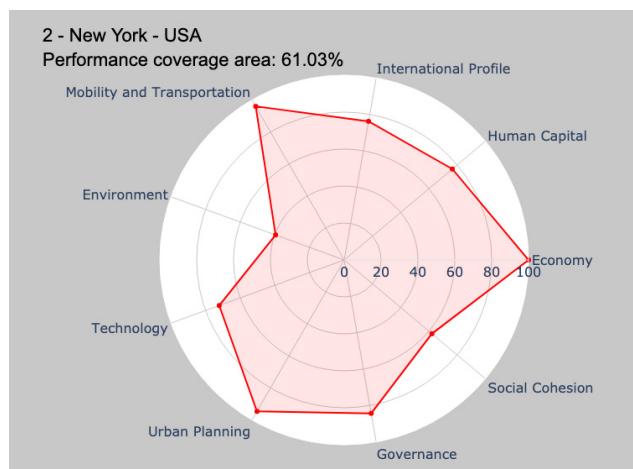
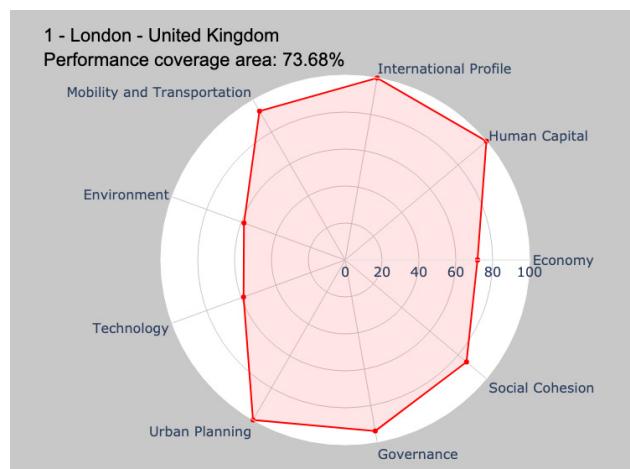
Appendix 2.

Graphical analysis of the profiles of the 183 cities

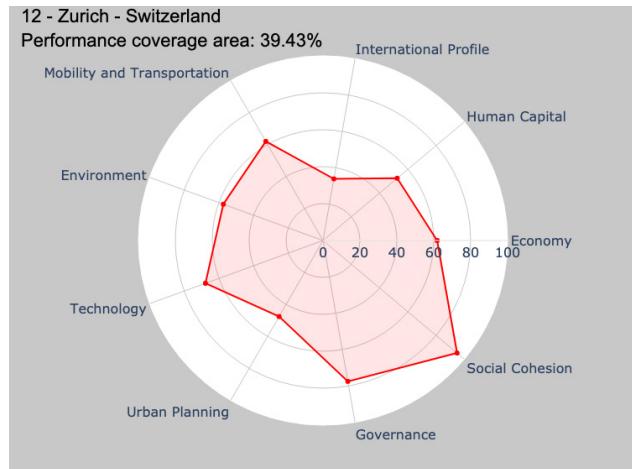
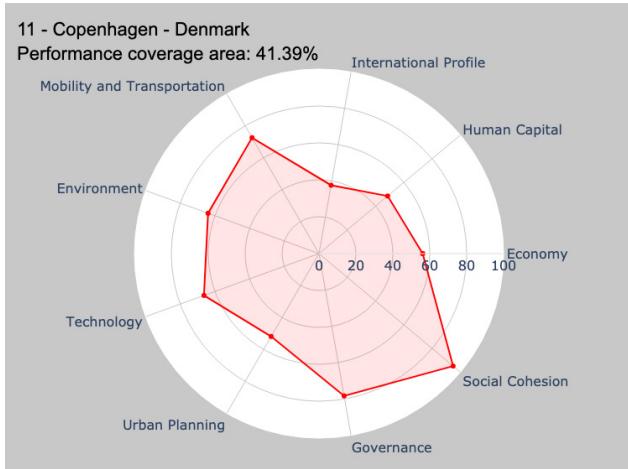
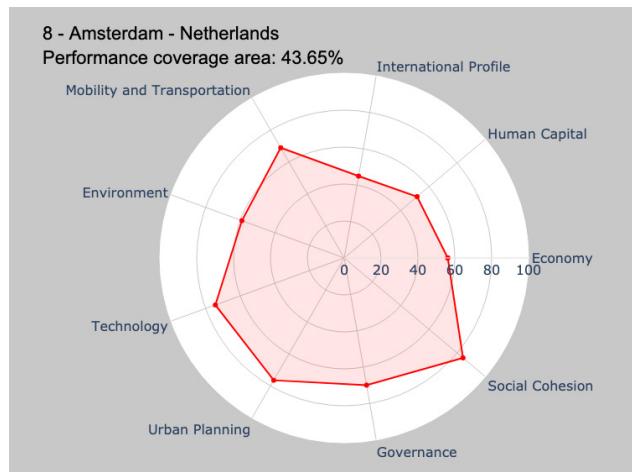
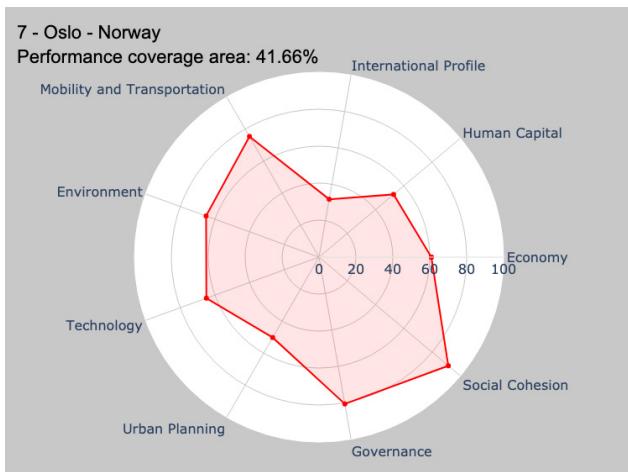
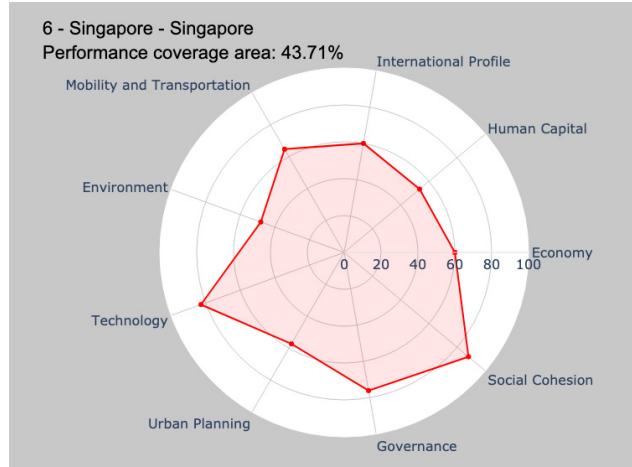
Below we present a graphical analysis of the 183 cities included in the **CIMI**, based on the nine key dimensions. These radar charts, ordered according to each city's position in the ranking, are intended to facilitate interpretation of the profile of each city by showing the values for each dimension. They also enable comparison of two or more cities at a glance.

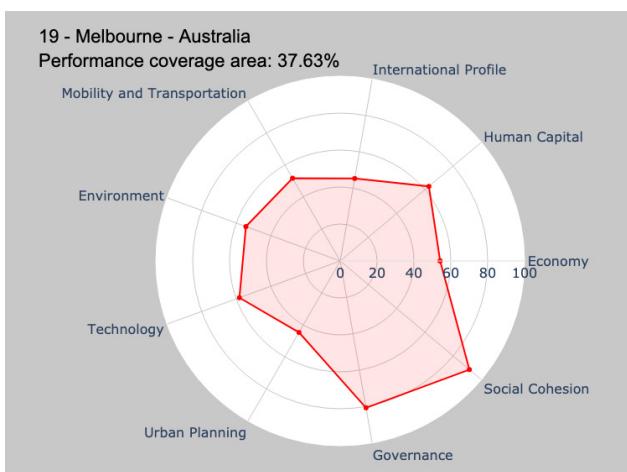
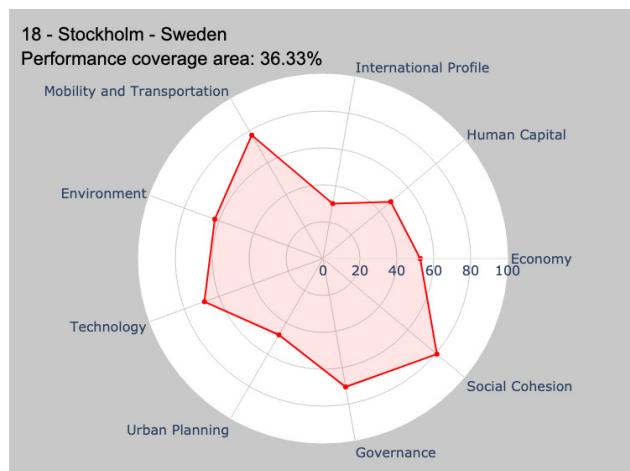
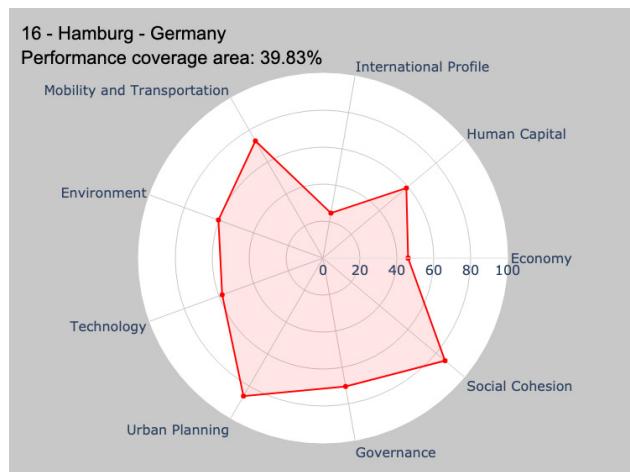
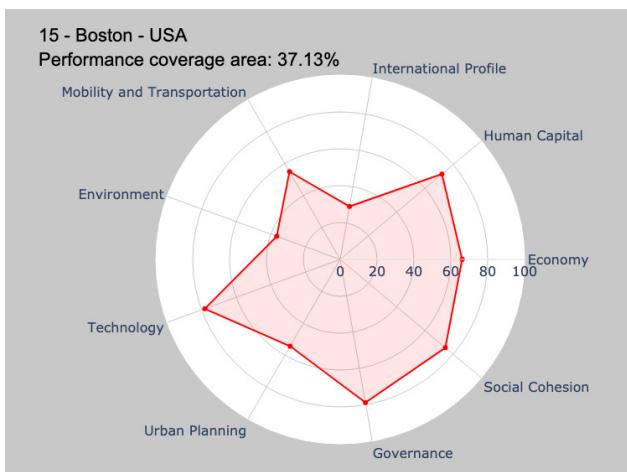
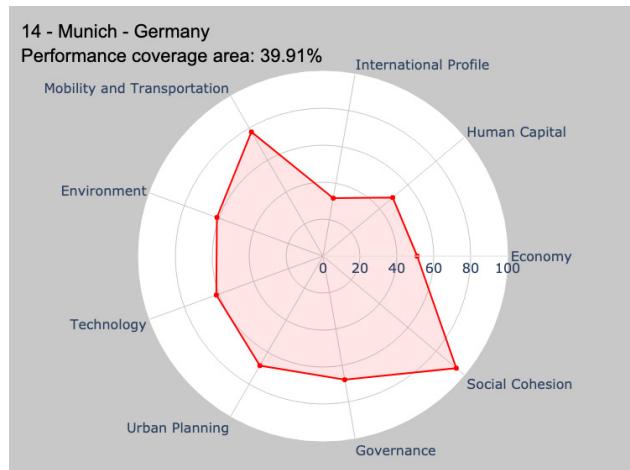
This year, we are introducing a new indicator that reflects each city's current performance and future growth potential. This indicator, called the performance coverage area,² visually represents the area covered within a nonagon (a nine-sided polygon) based on a city's ranking in the dimensions evaluated. In an ideal scenario, a perfect city that ranks first in every dimension would

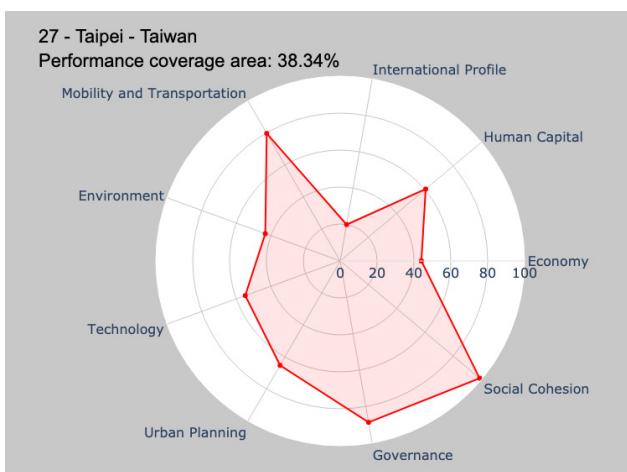
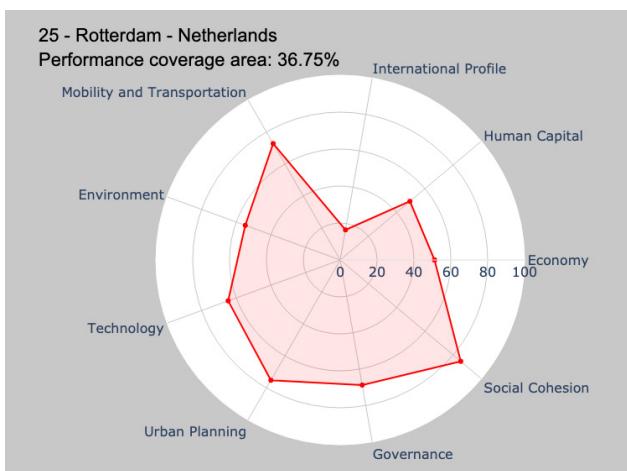
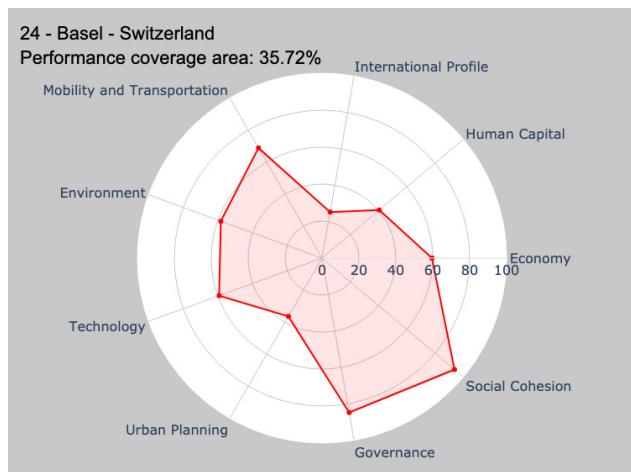
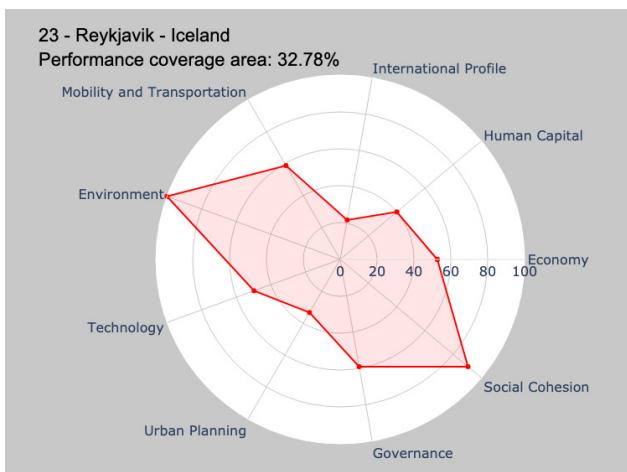
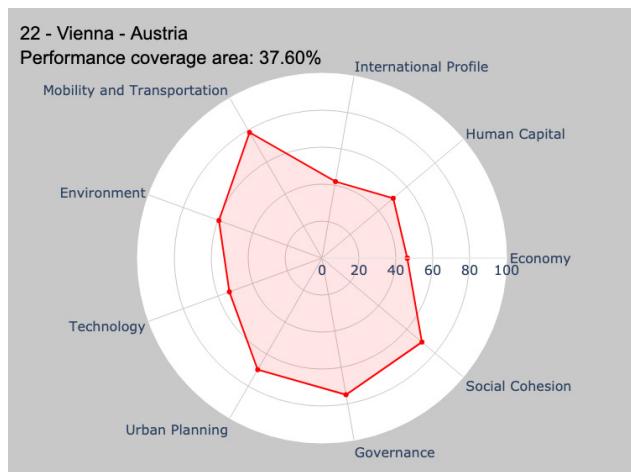
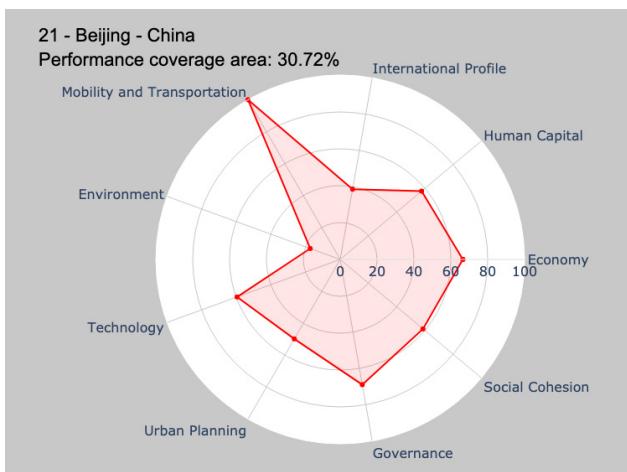
be represented on a radar chart by radii reaching the chart's outermost edge, forming a complete nonagon filled in red. Such a city would score 100% for this indicator. However, since no city is perfect and all have areas for improvement, we interpret the percentage that each city needs to gain to reach the 100% ideal score as its growth potential. For example, if London has a performance coverage area of 73.68%, this means that it has a growth margin of 26.32% to reach theoretical perfection in the nonagon model.

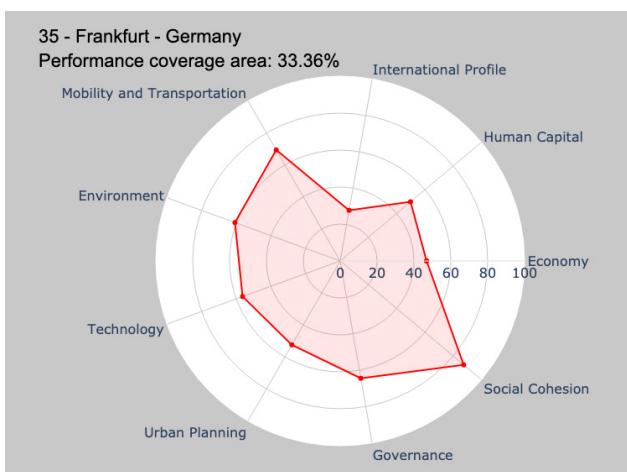
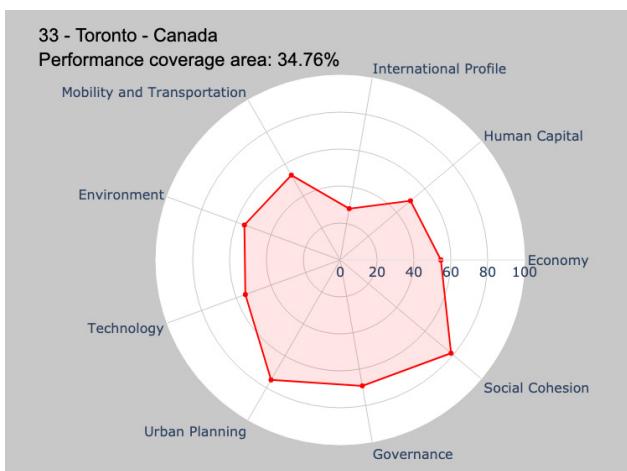
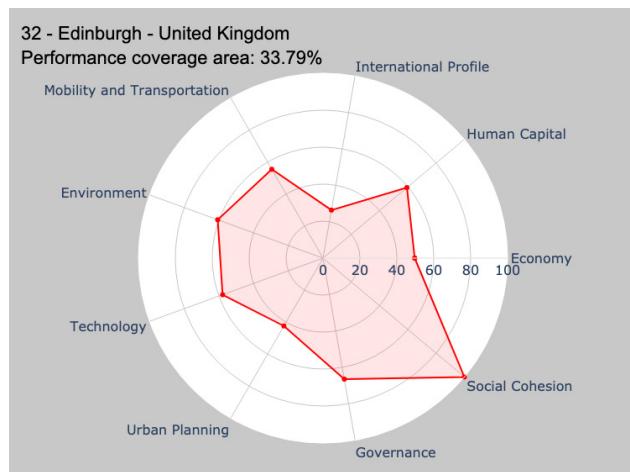
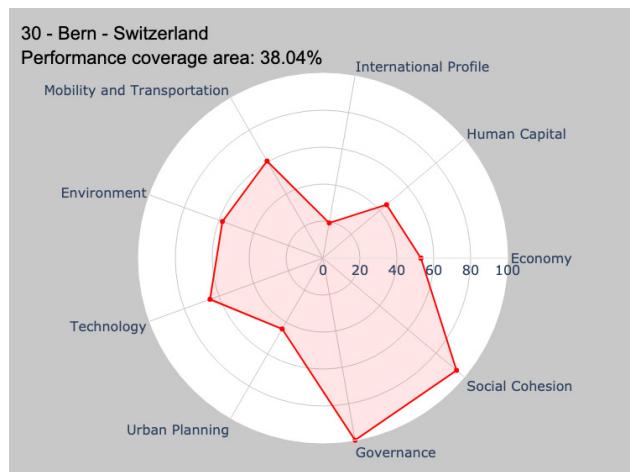
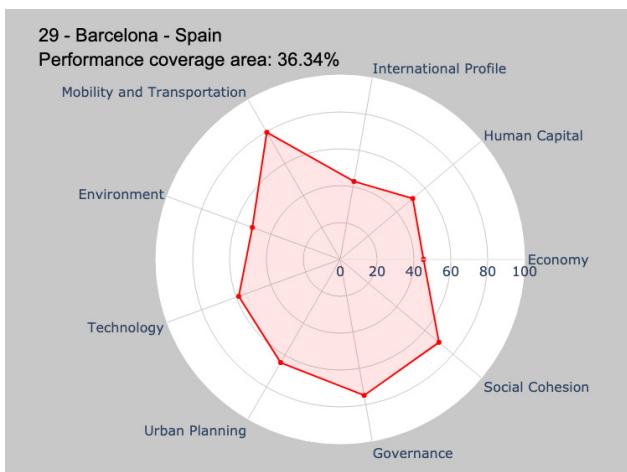


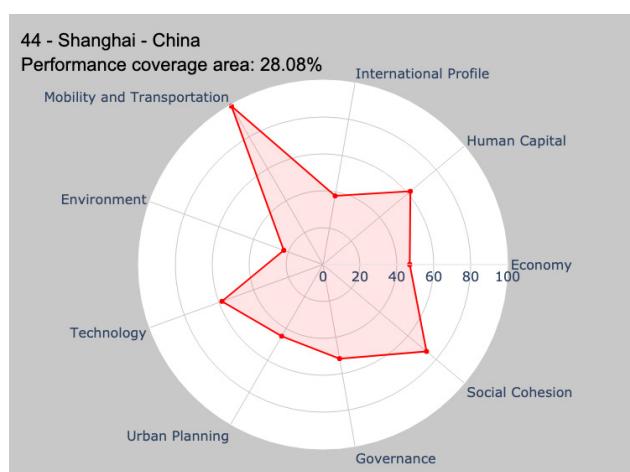
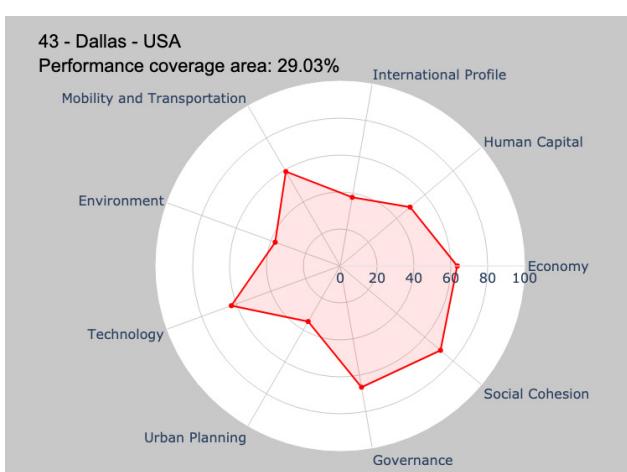
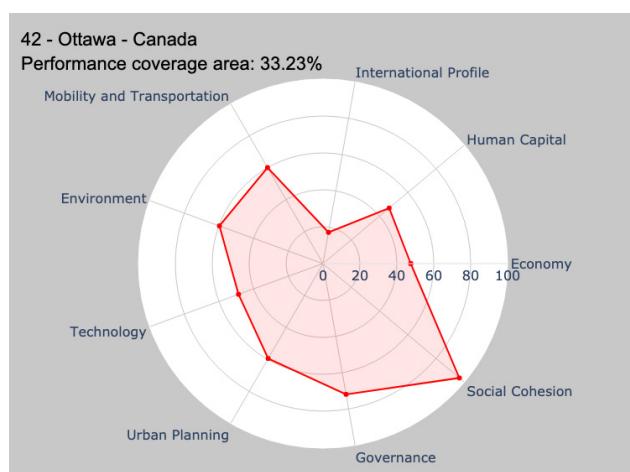
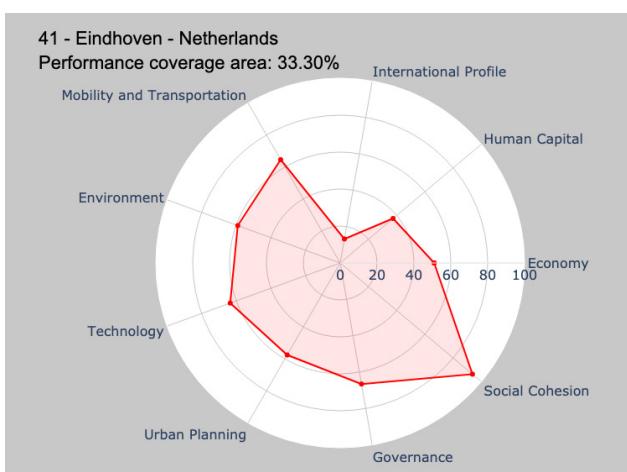
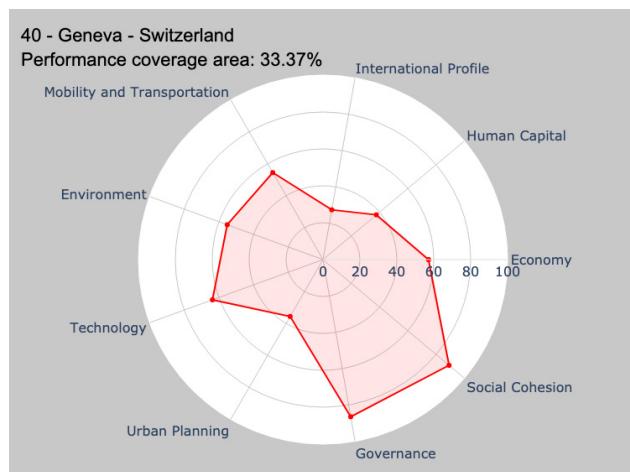
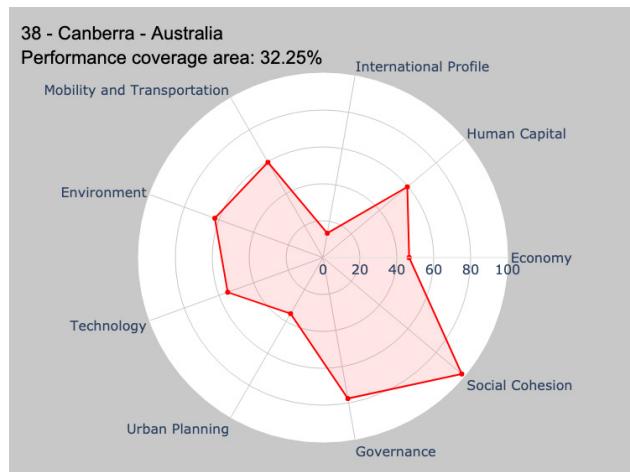
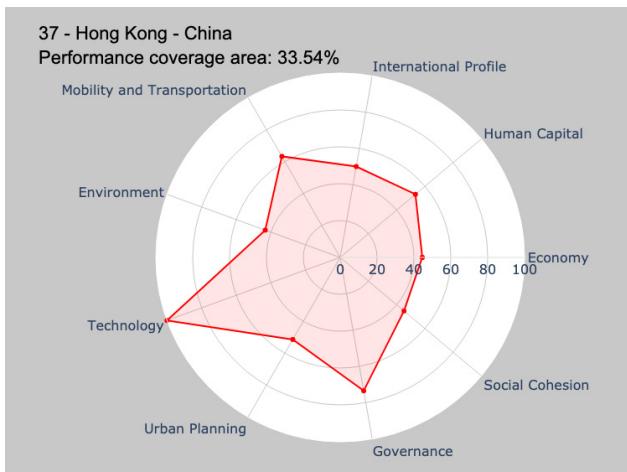
²This indicator is not directly comparable with the position of each city in the ranking, since the radar chart assigns equal weight to each dimension, unlike the methodology used to calculate the CIMI, which assigns different weights.
See IESE Cities in Motion Index: Metodología y modelización, Índice 2014

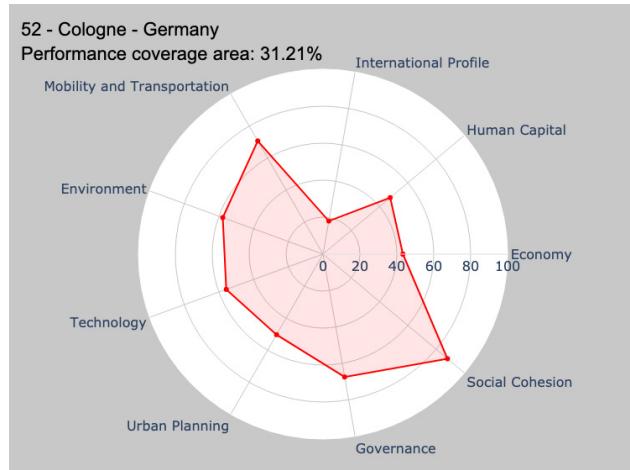
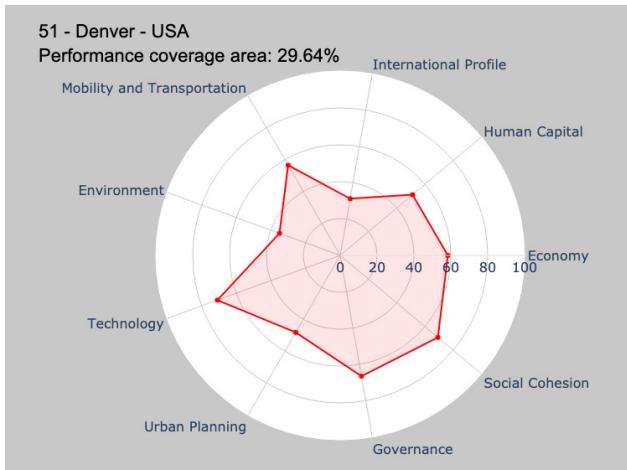
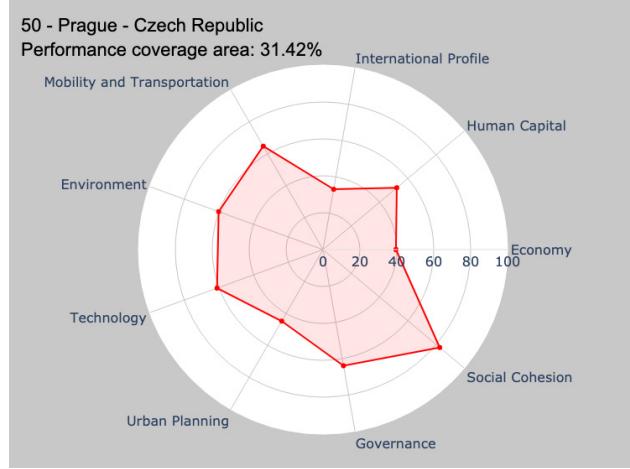
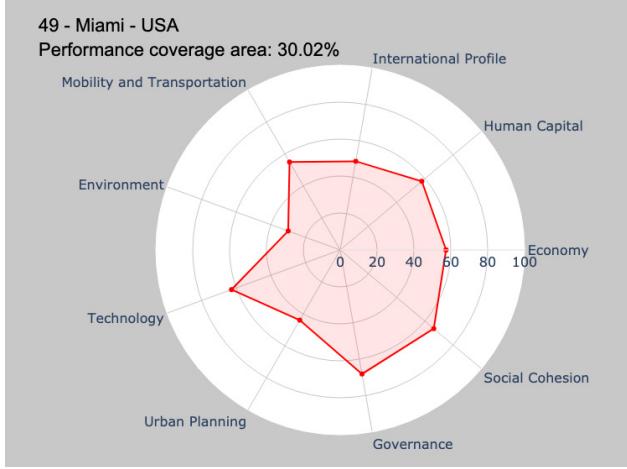
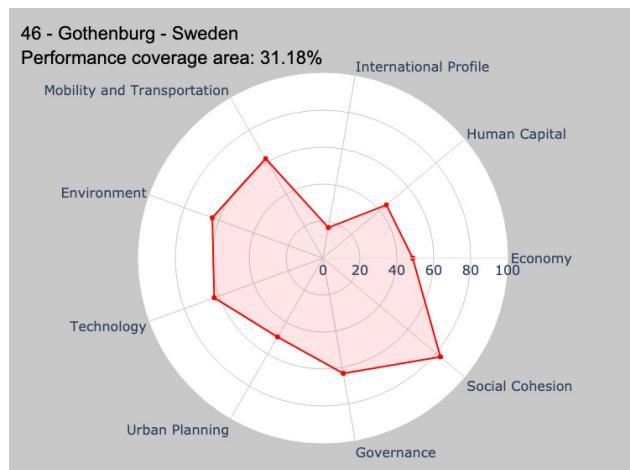
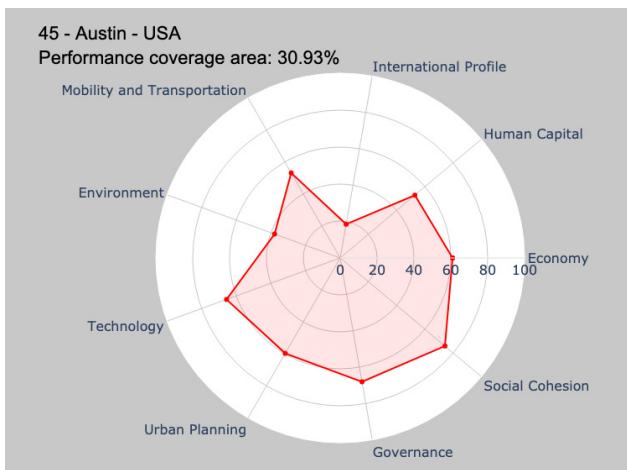


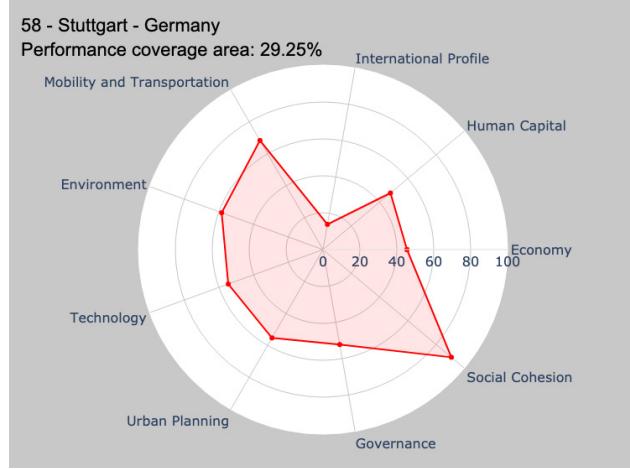
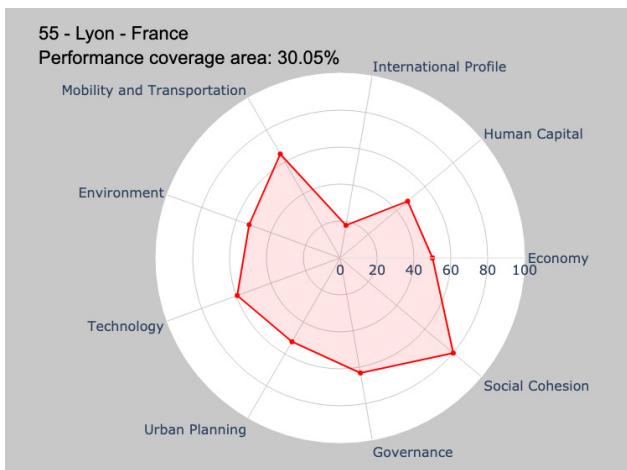


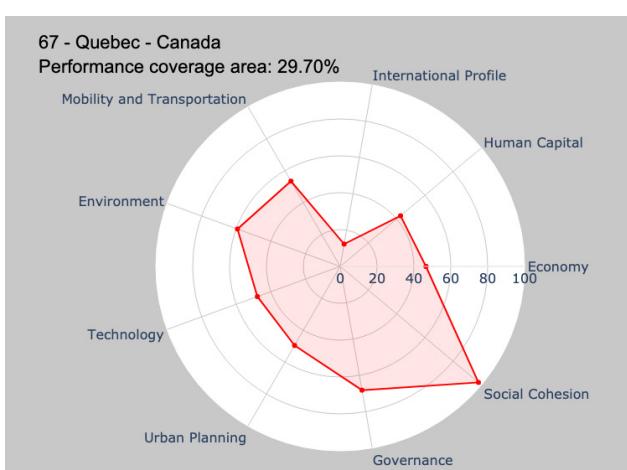
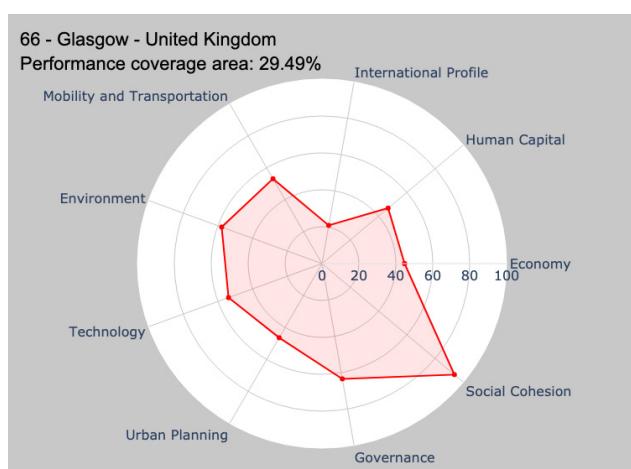
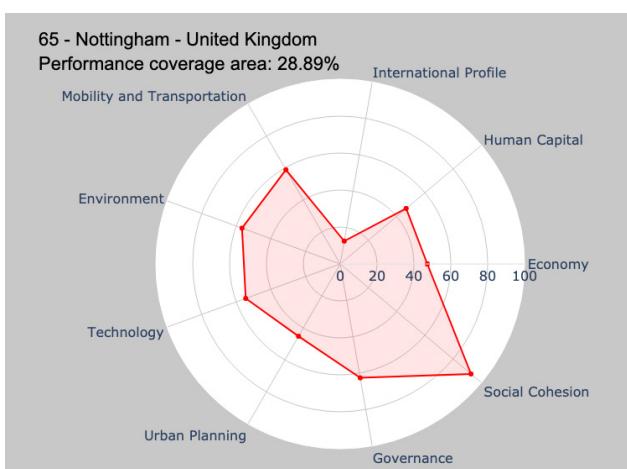
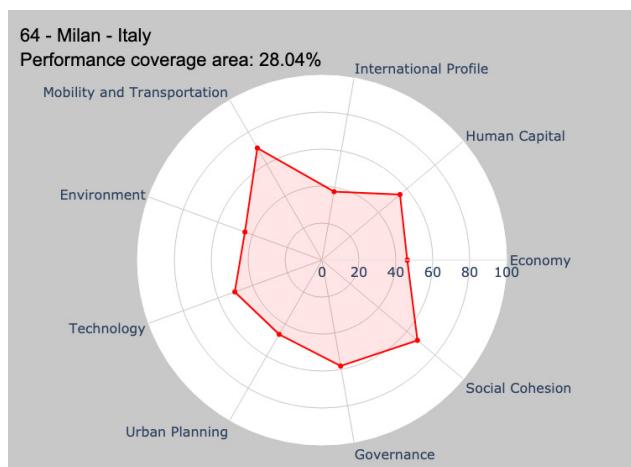
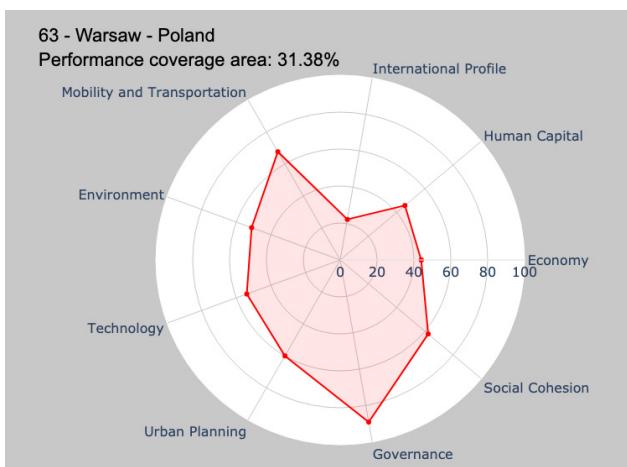
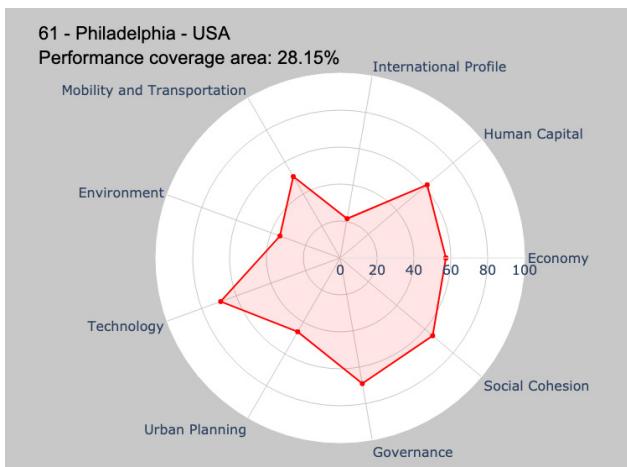


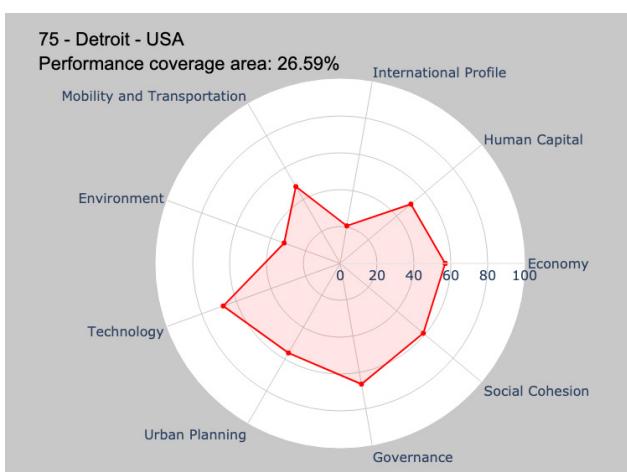
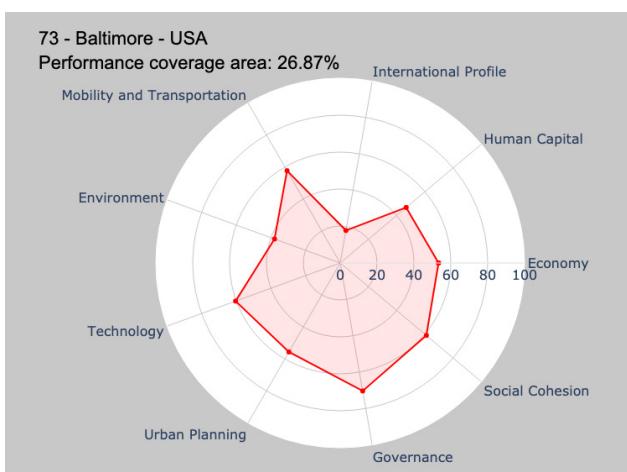
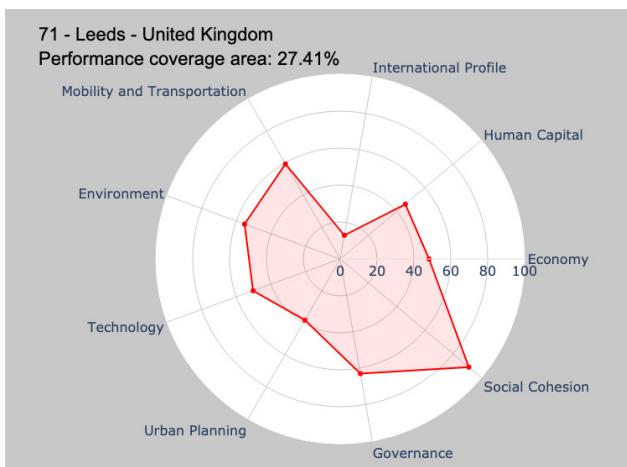
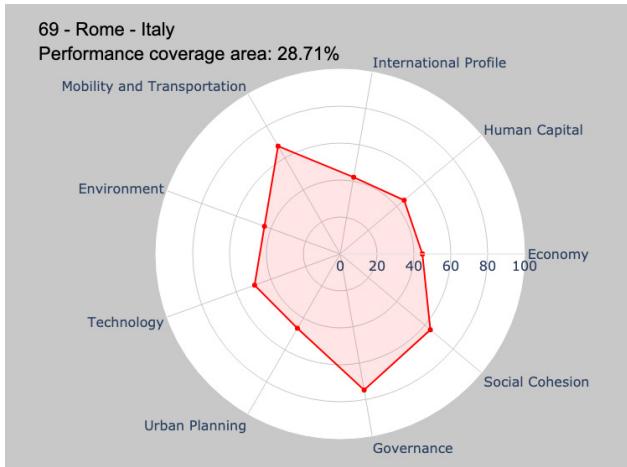


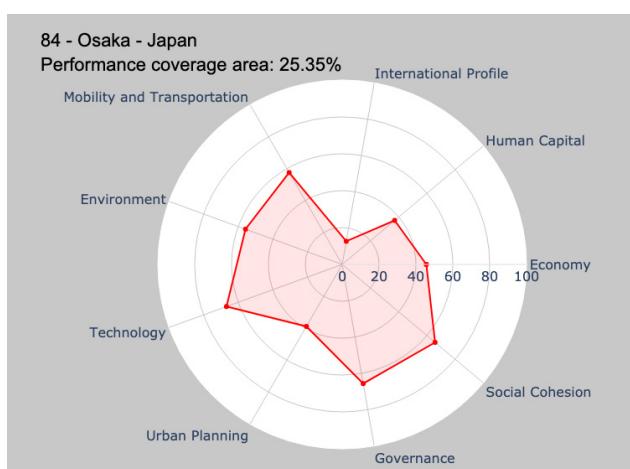
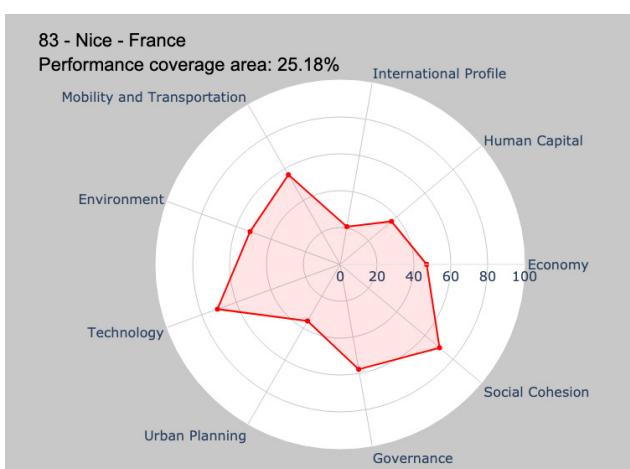
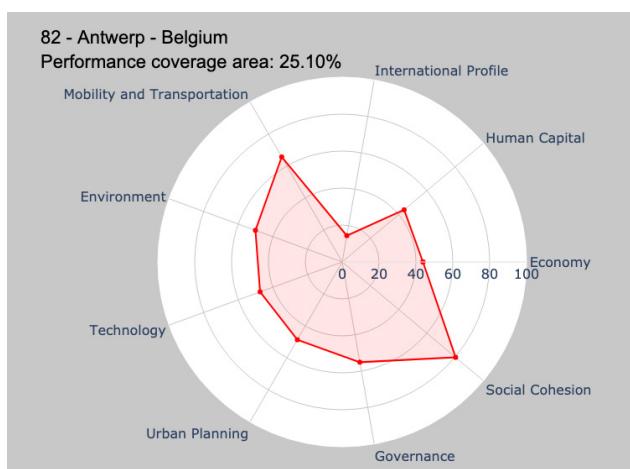
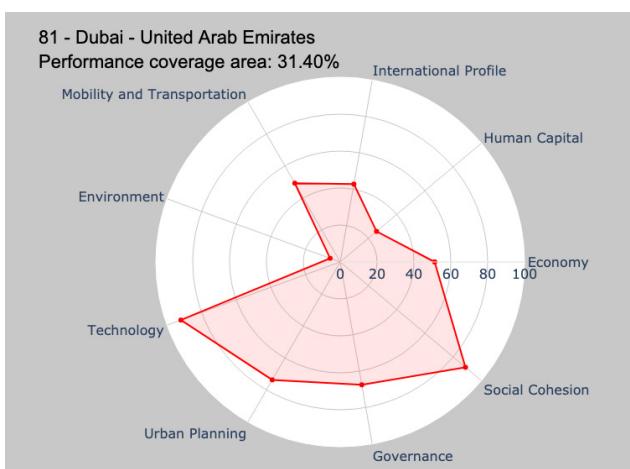
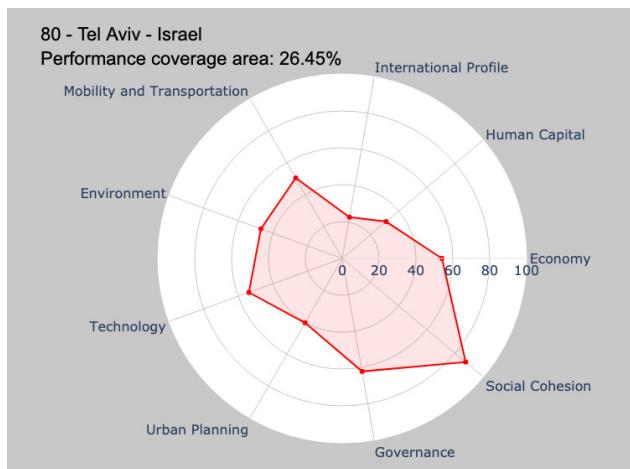
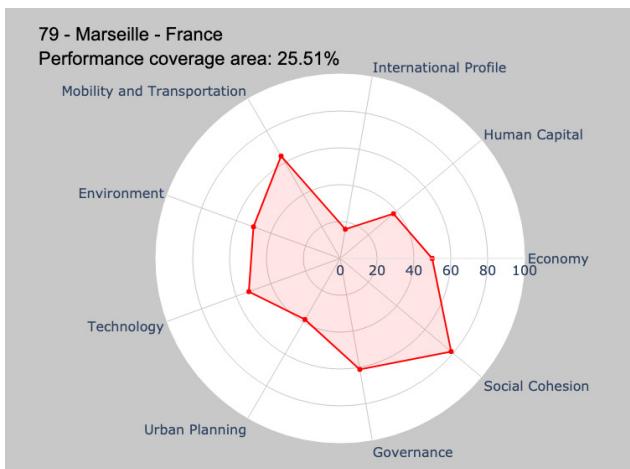
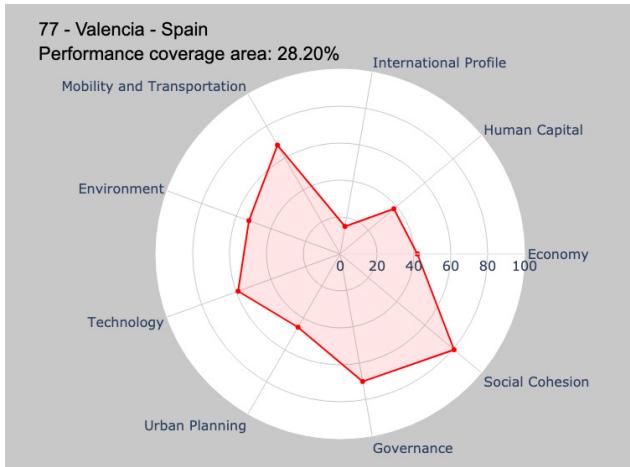


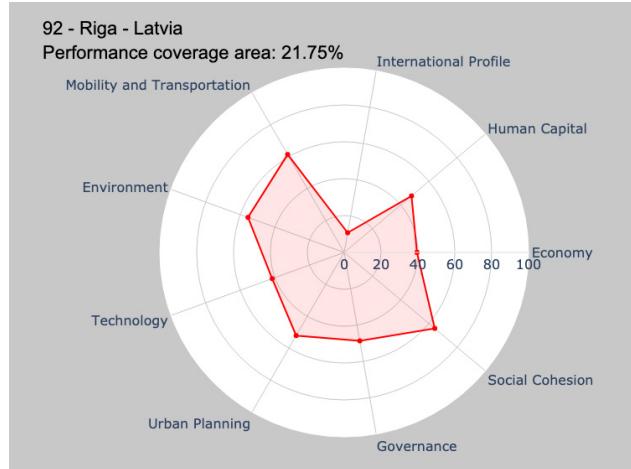
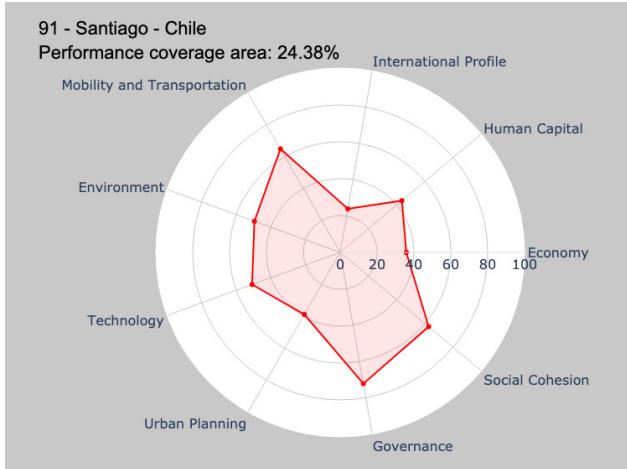
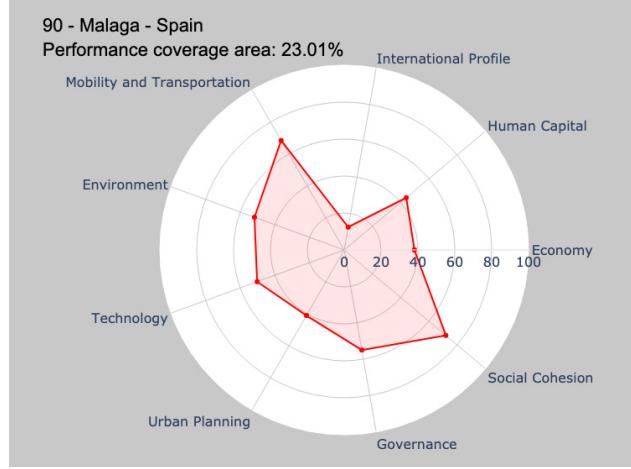
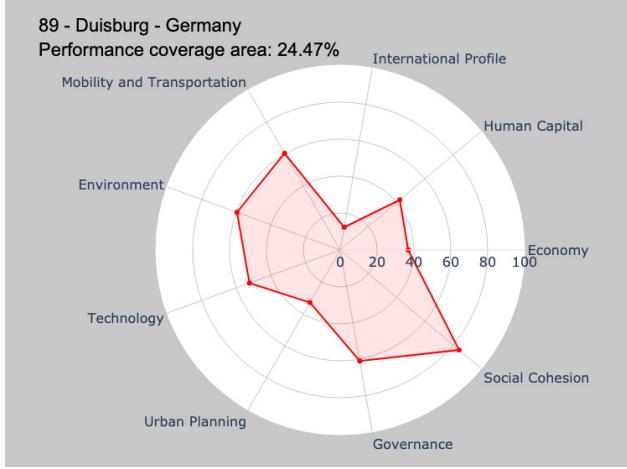
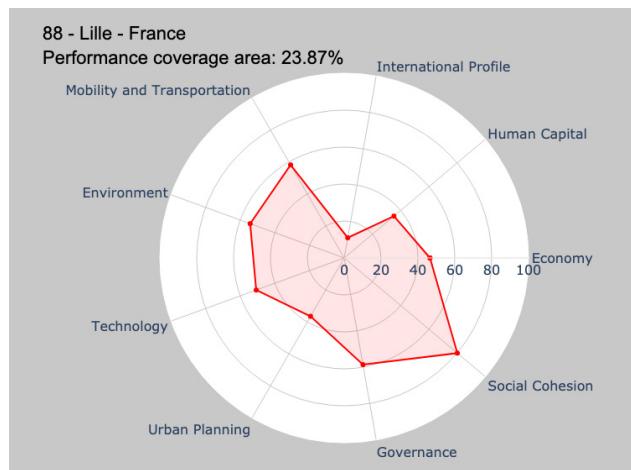
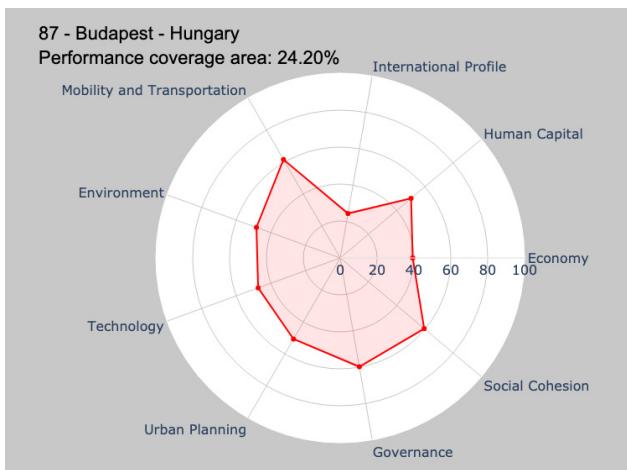
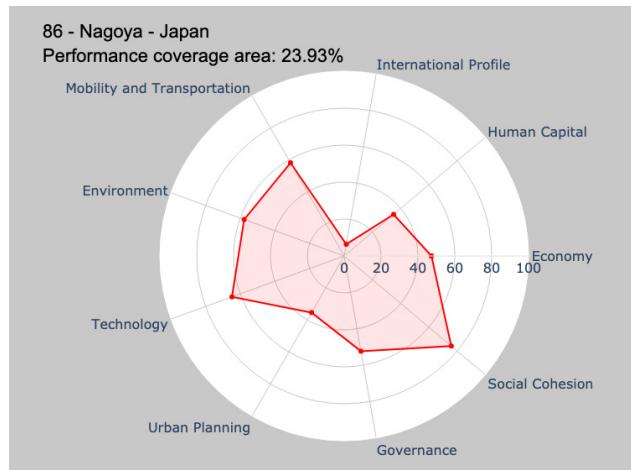
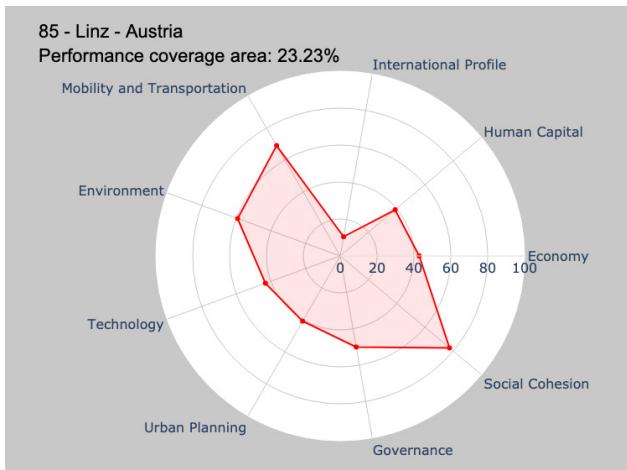


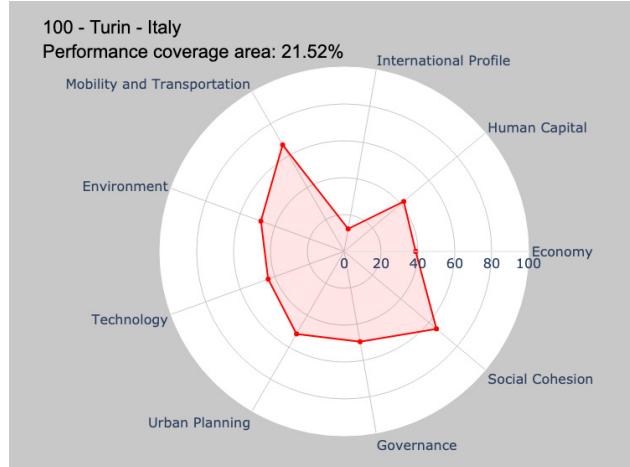
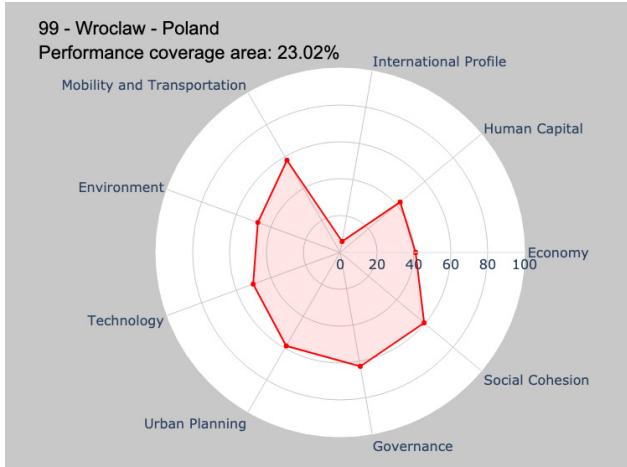
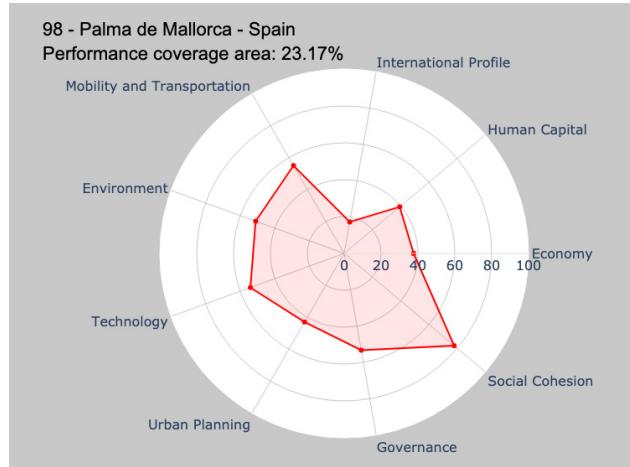
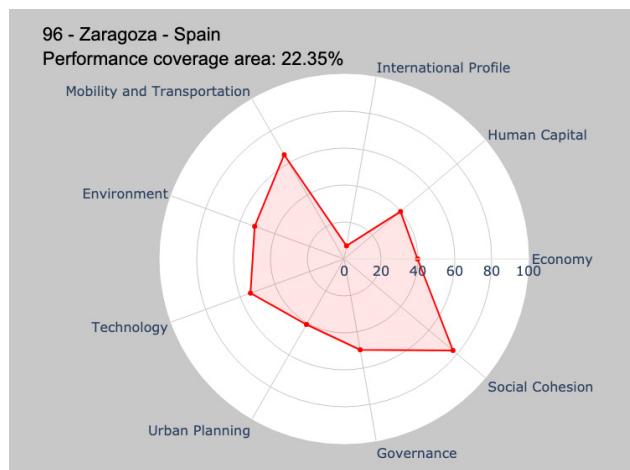
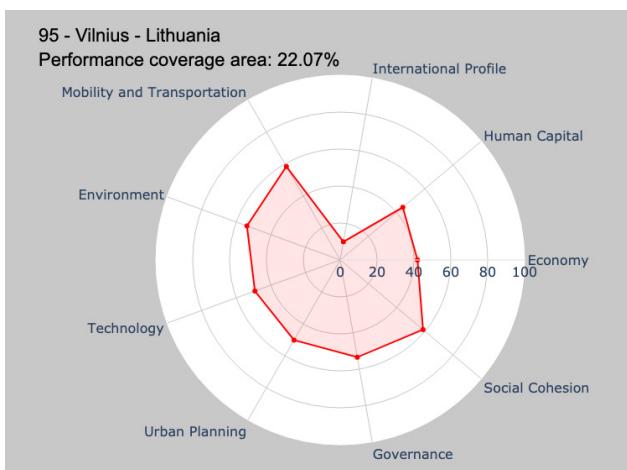
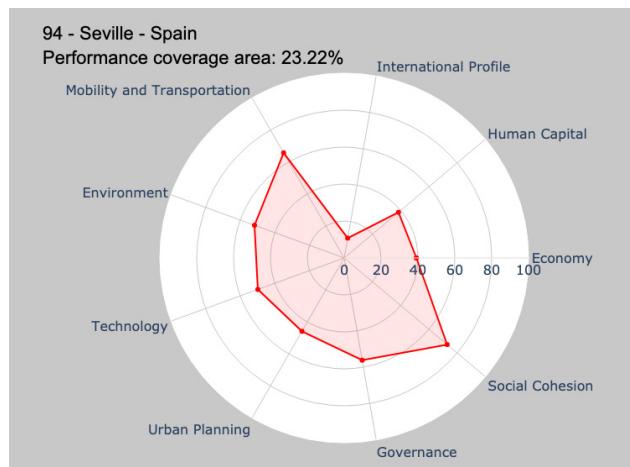
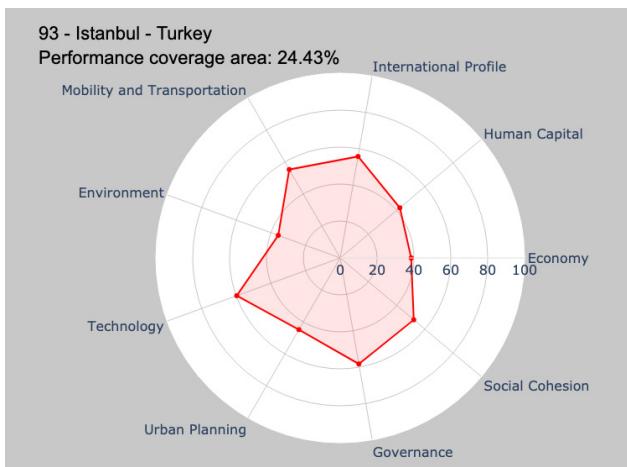


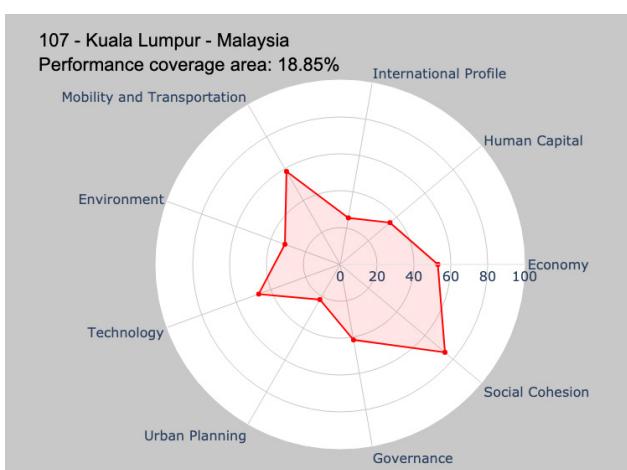
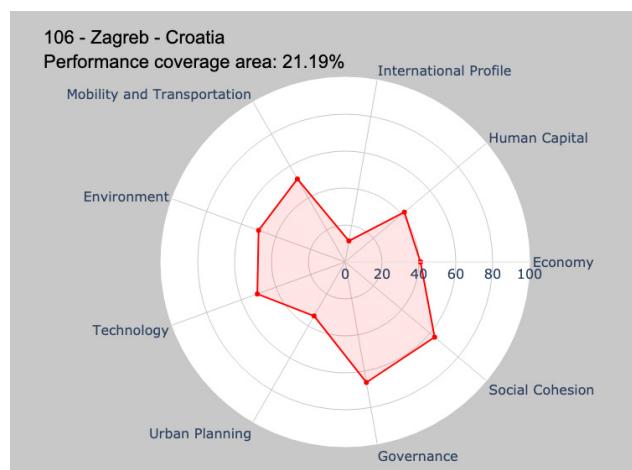
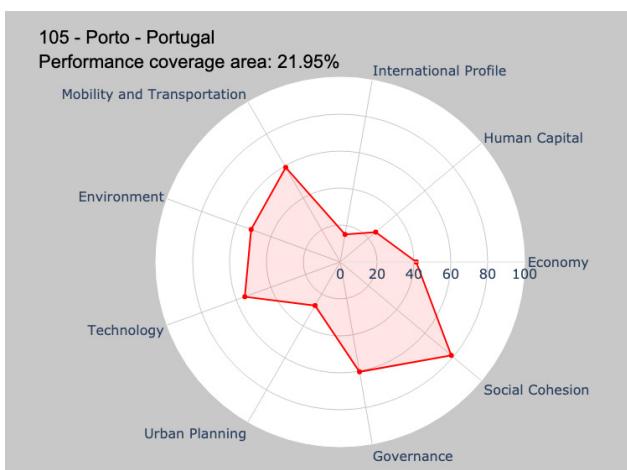
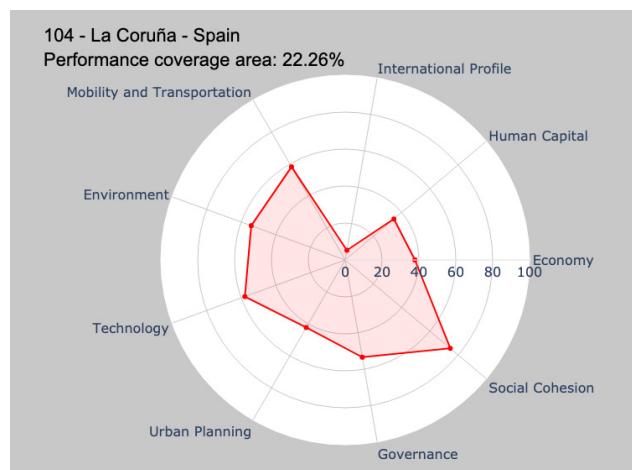
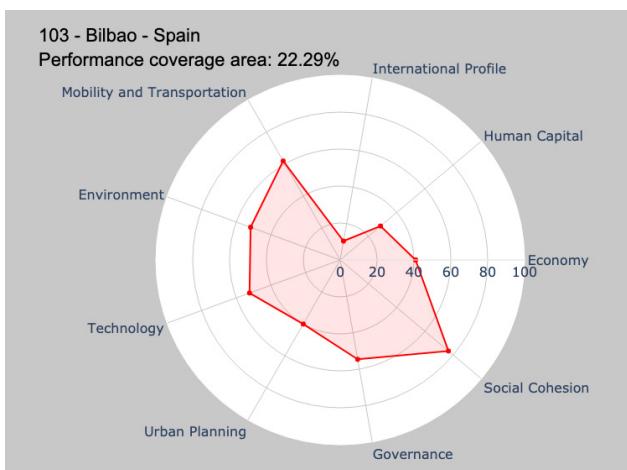
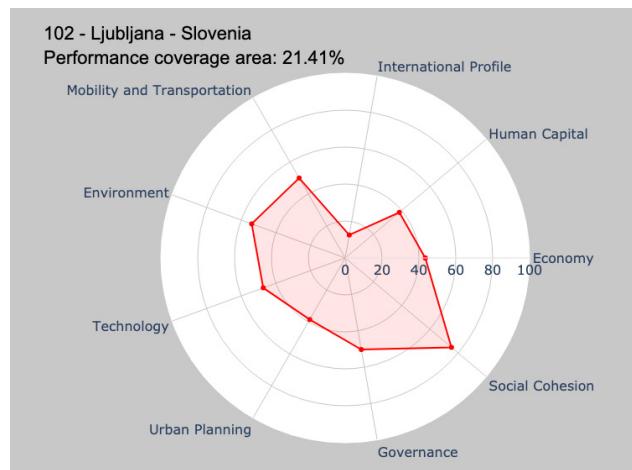
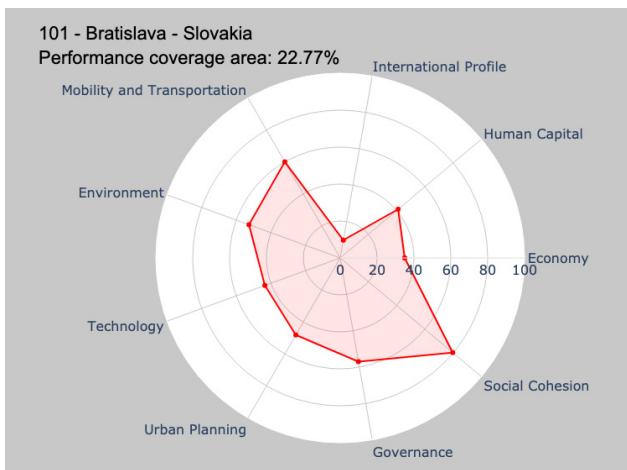


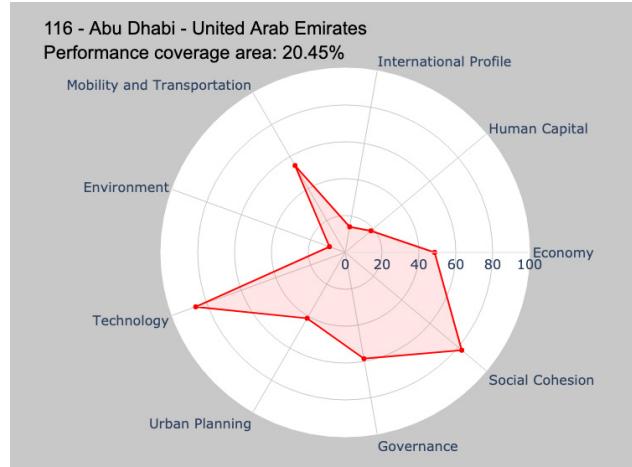
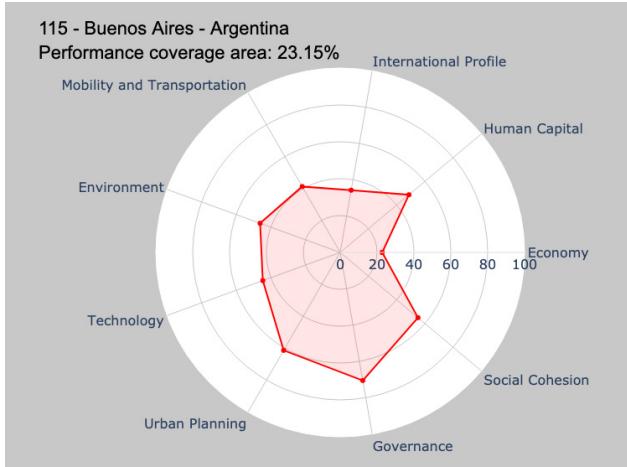
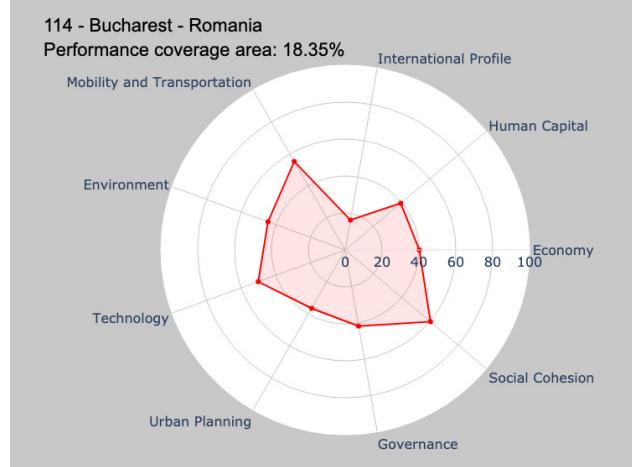
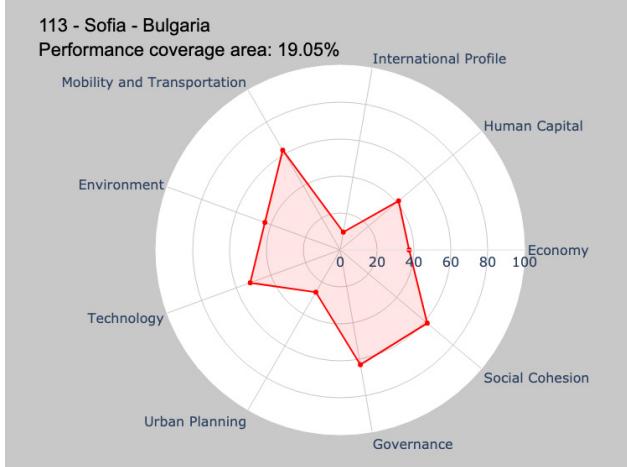
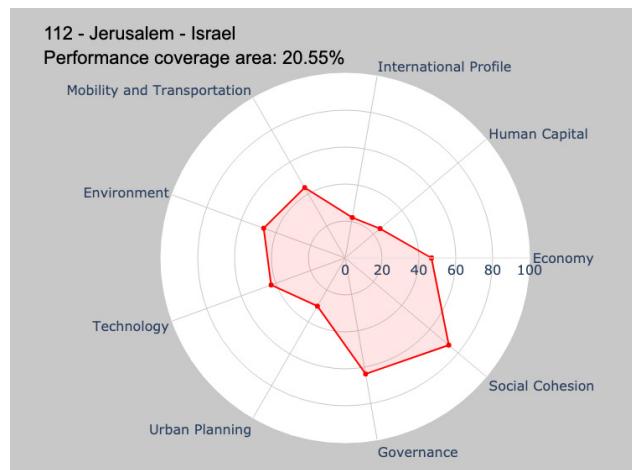
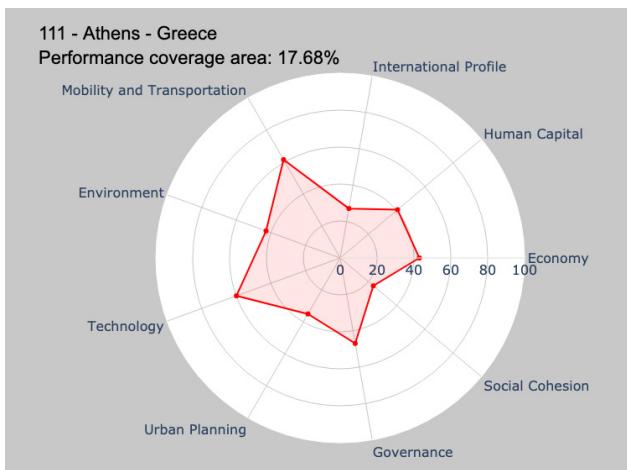
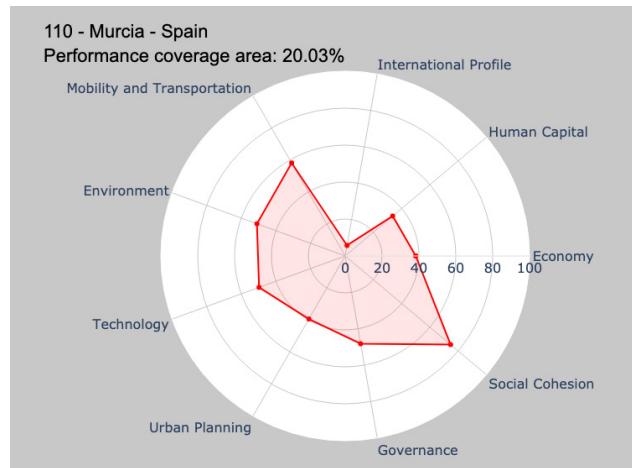
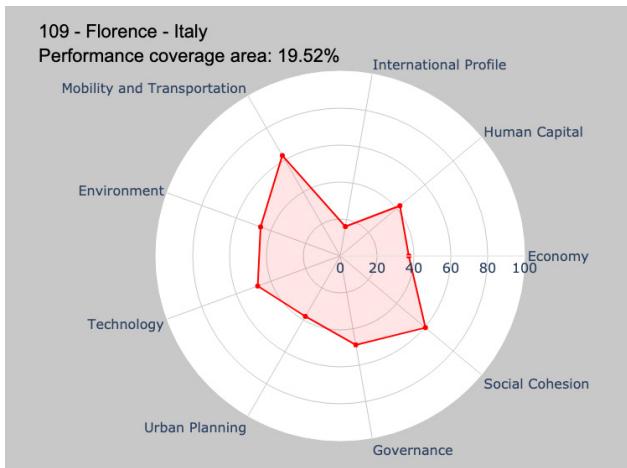


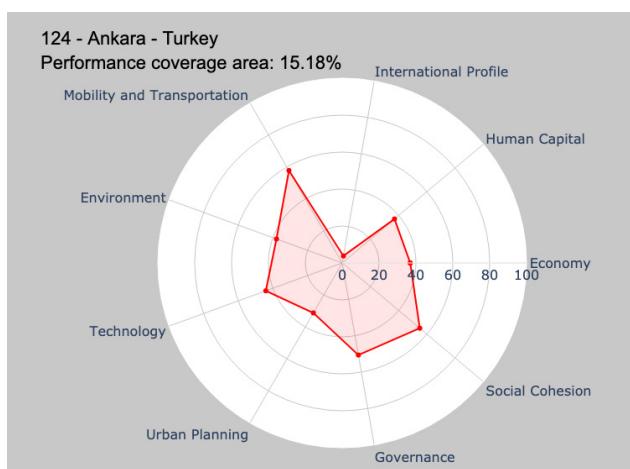
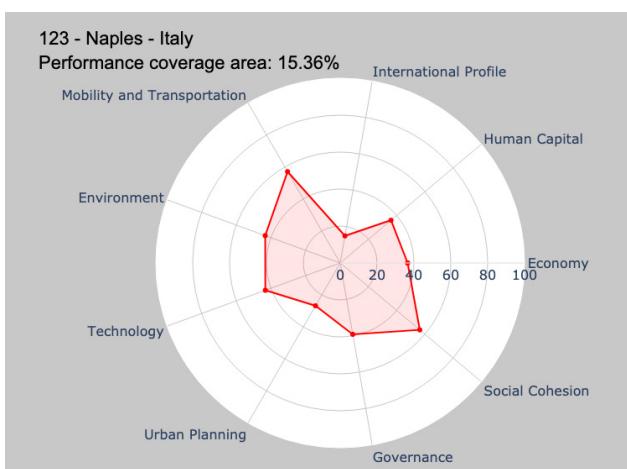
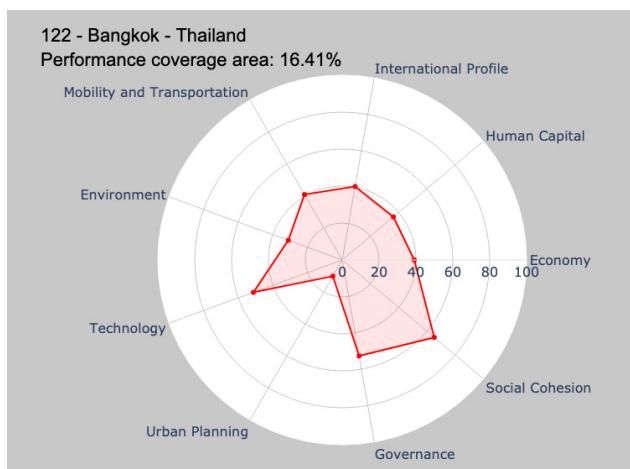
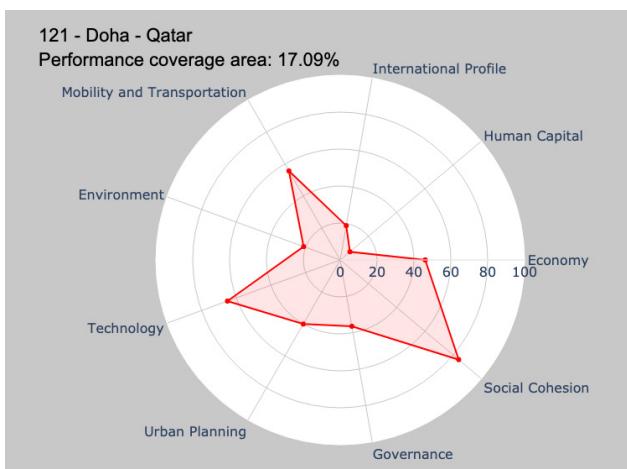
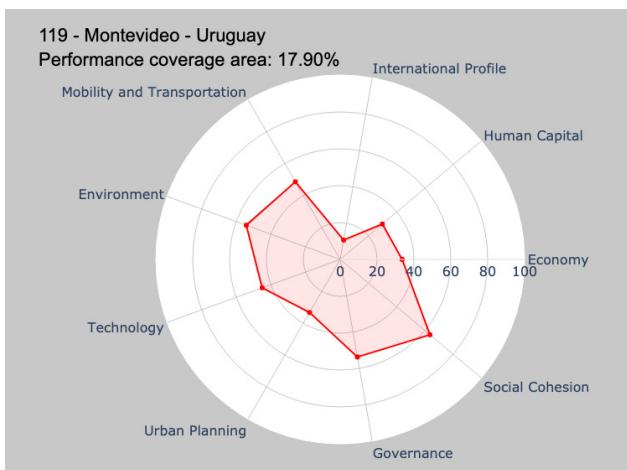
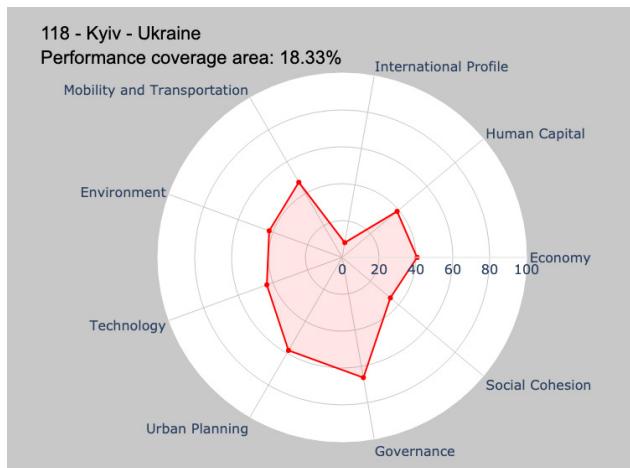


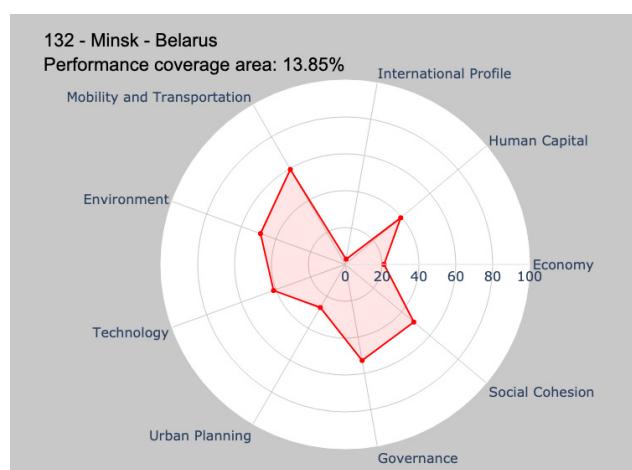
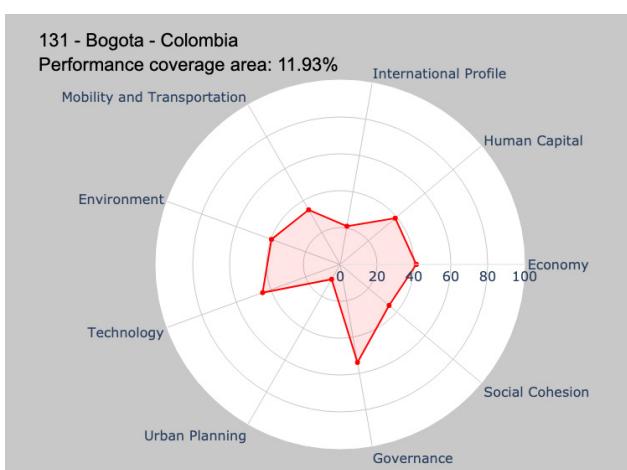
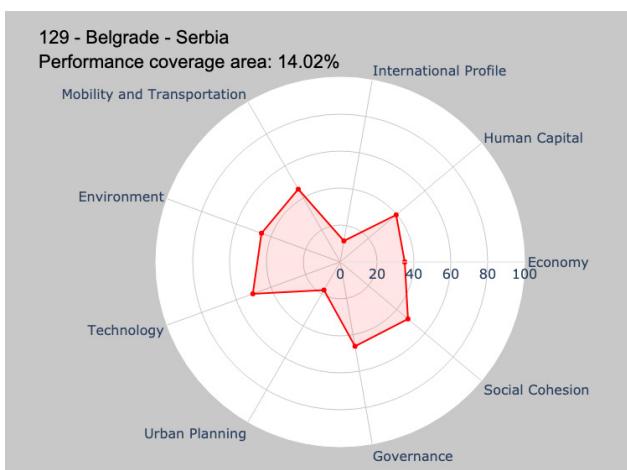
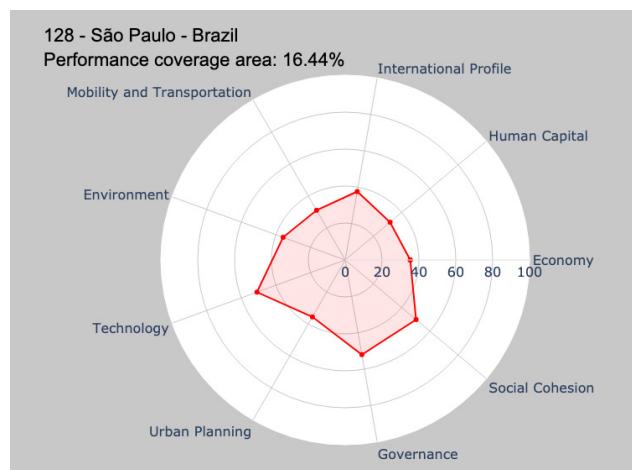
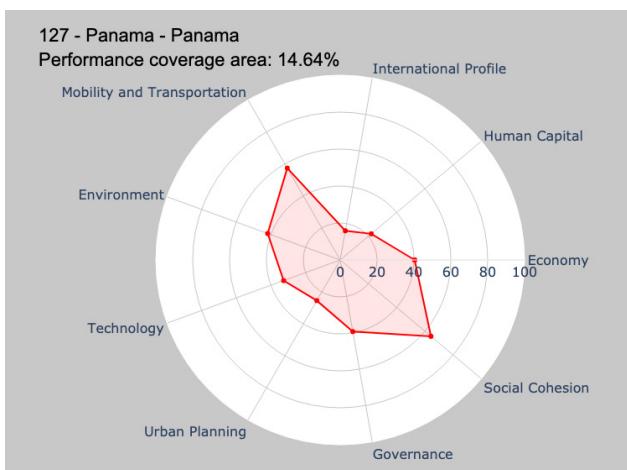
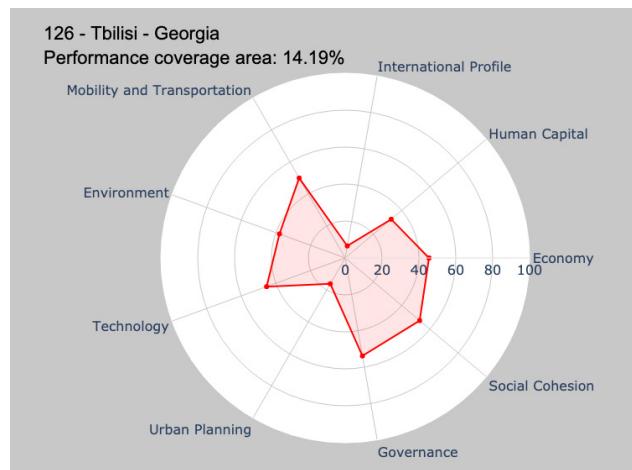
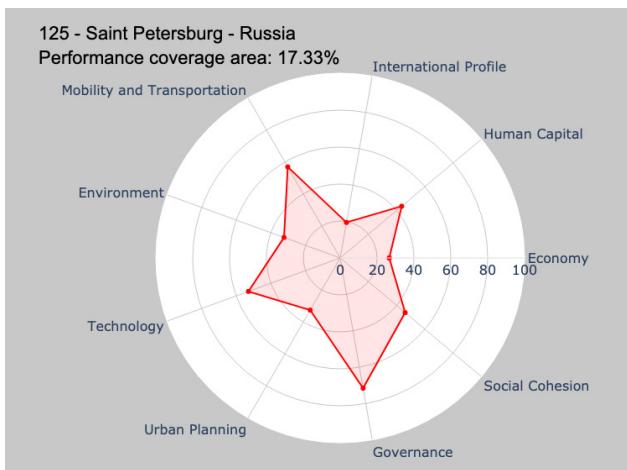


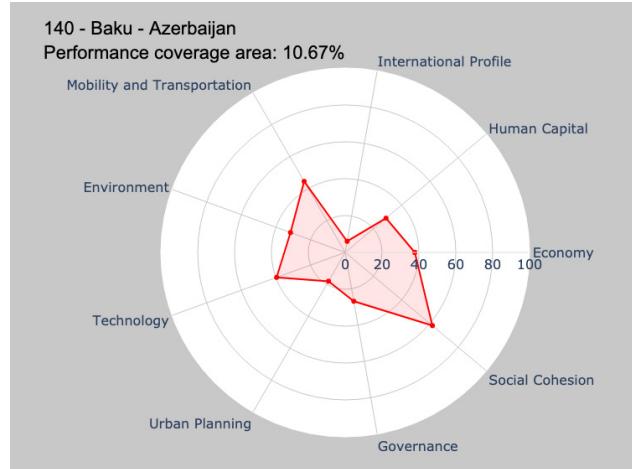
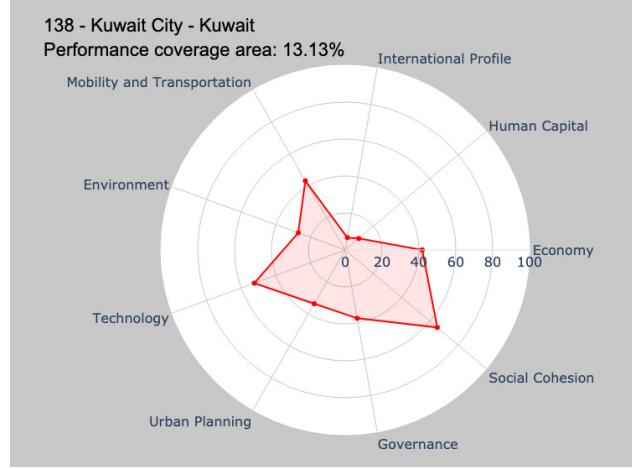
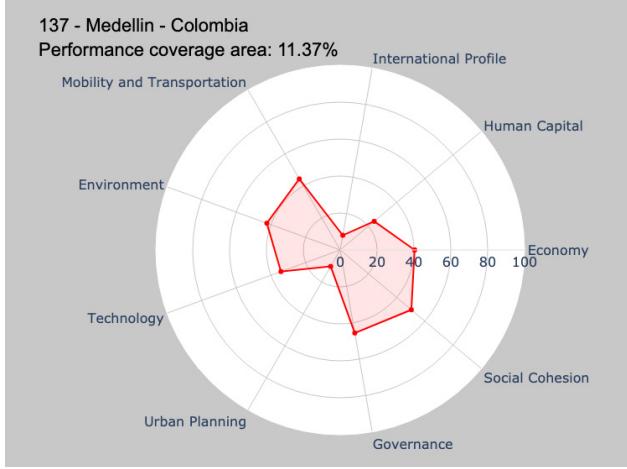
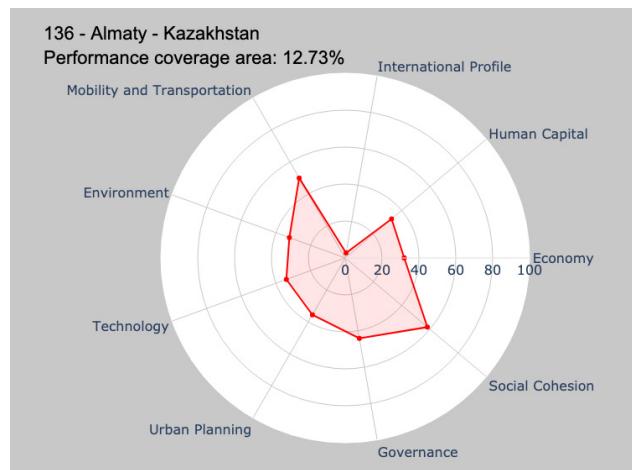
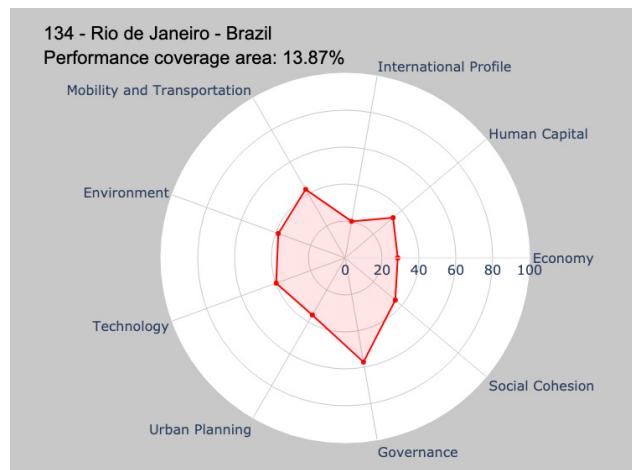
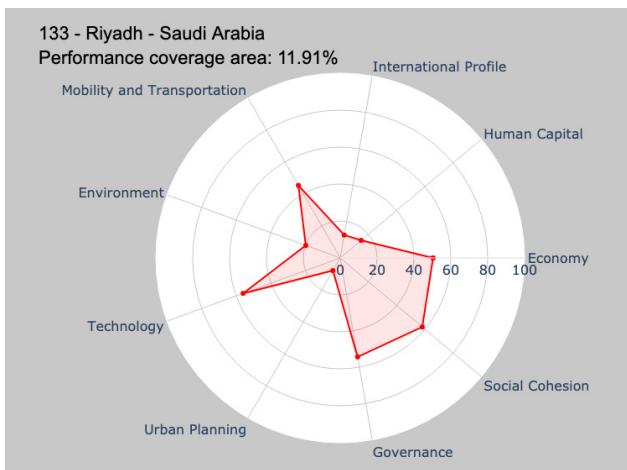


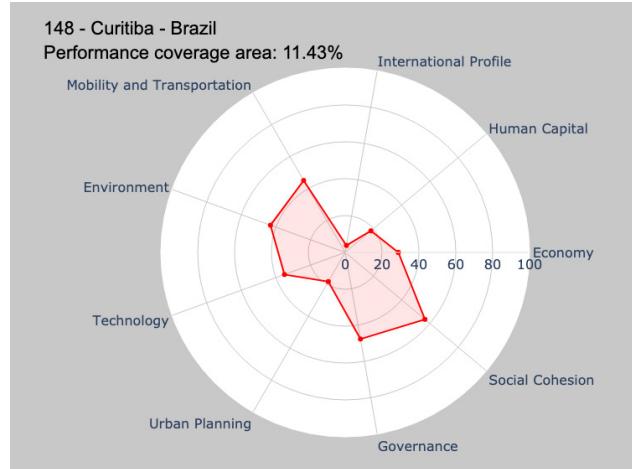
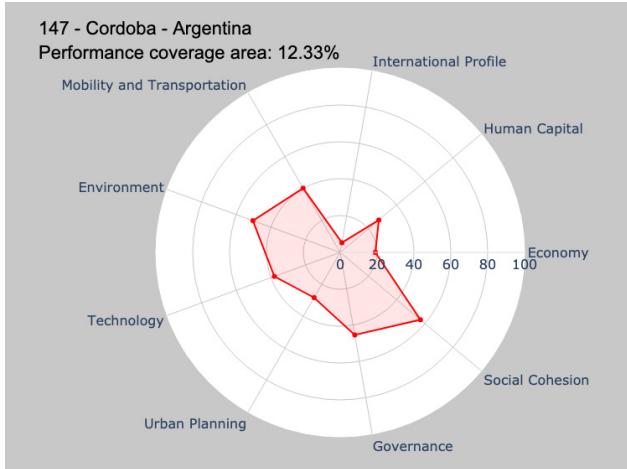
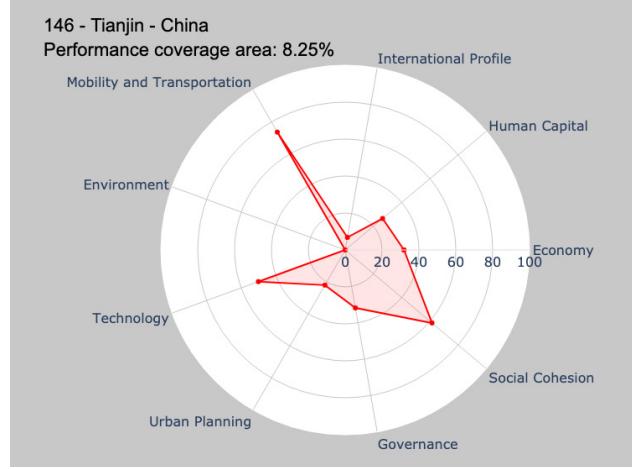
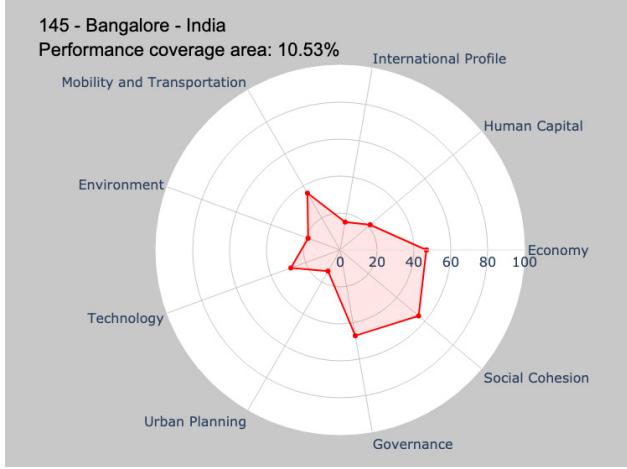
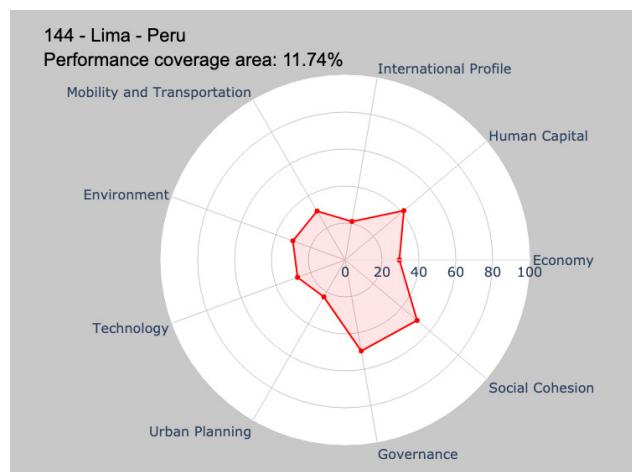
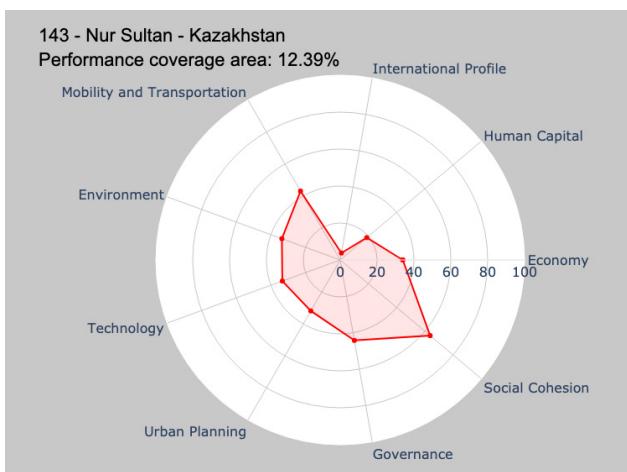
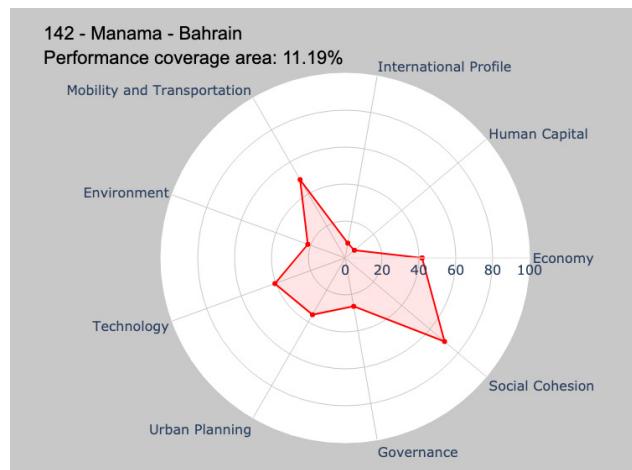
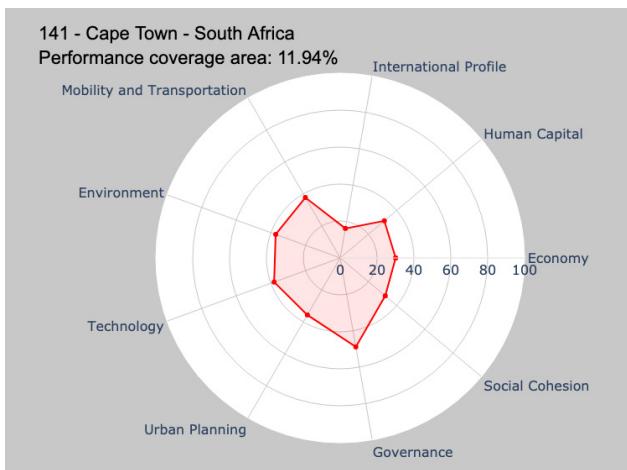


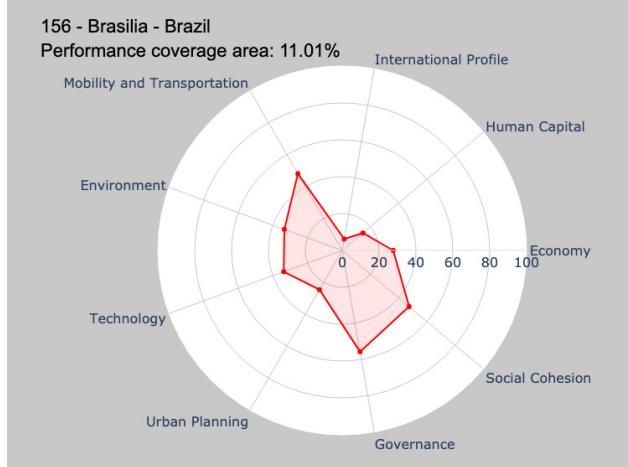
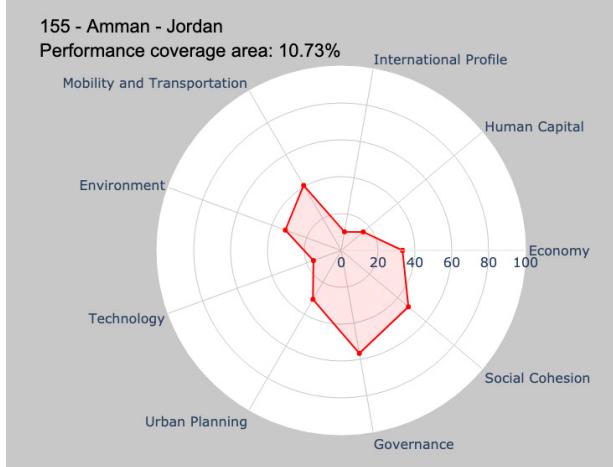
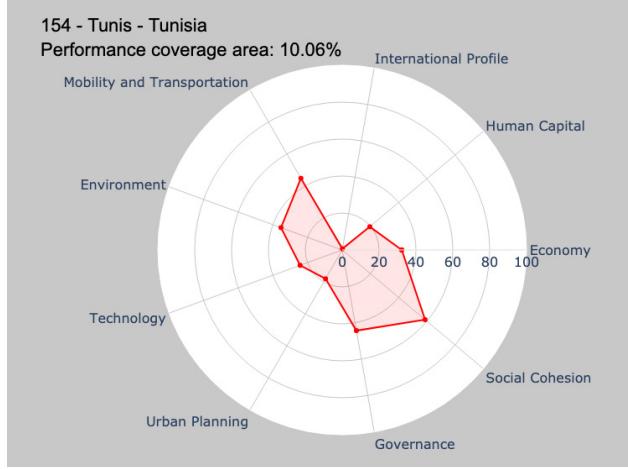
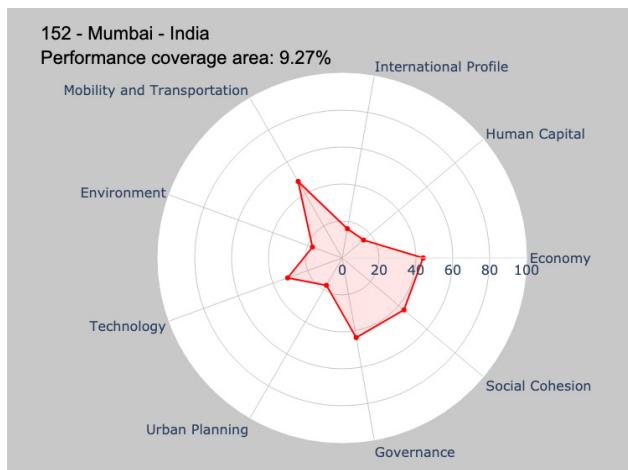
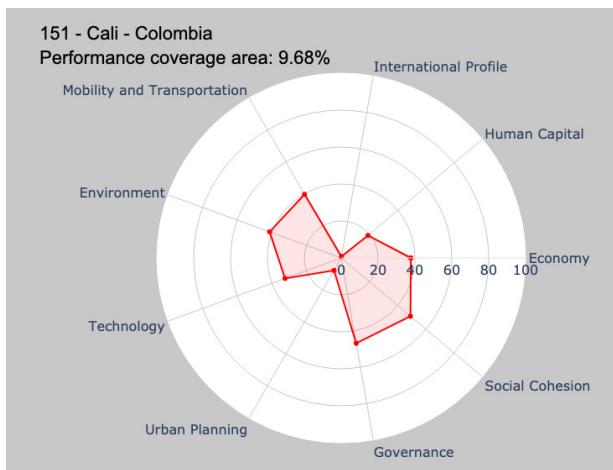
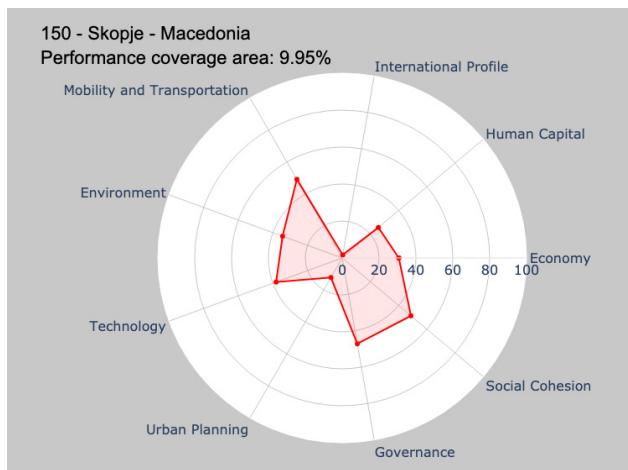
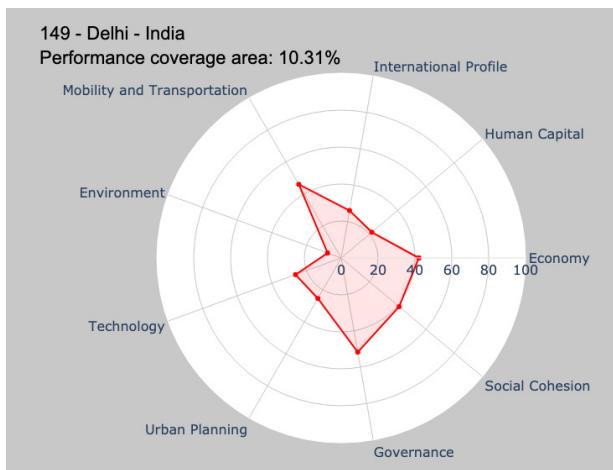


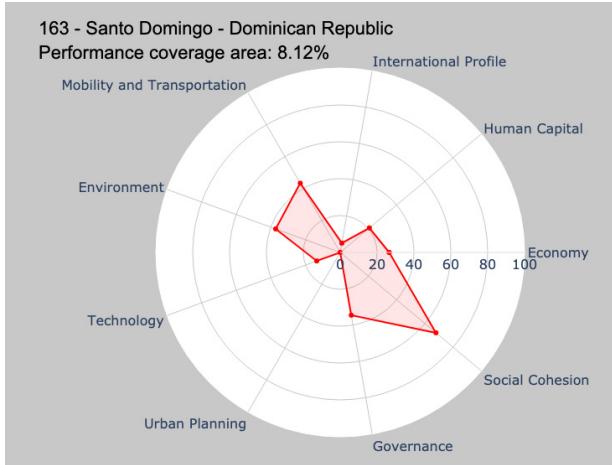
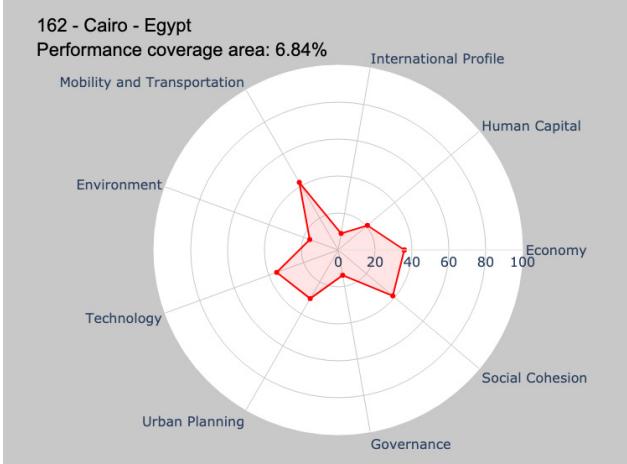
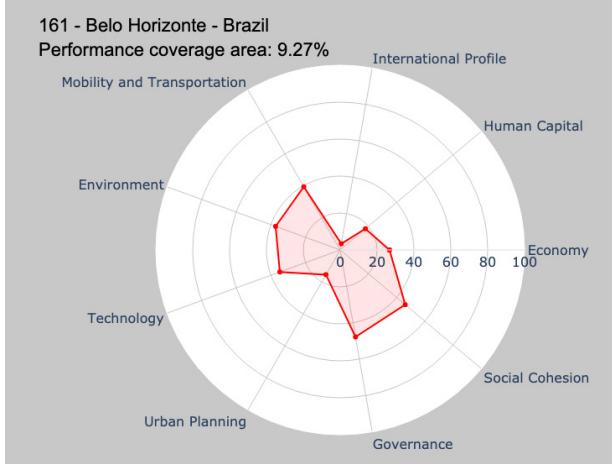
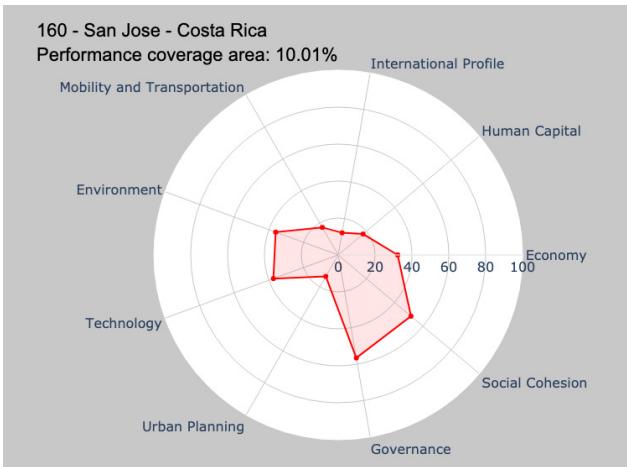
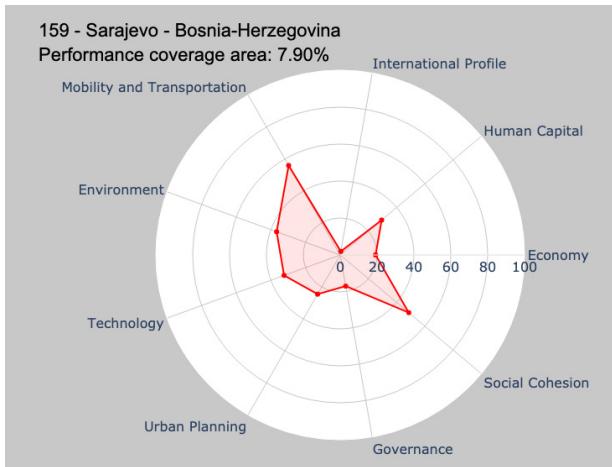
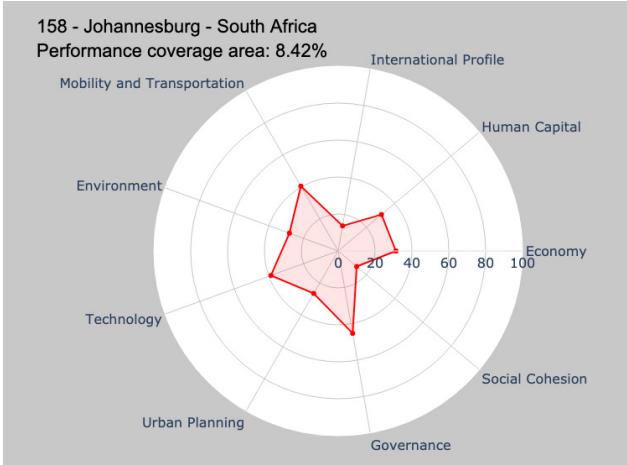
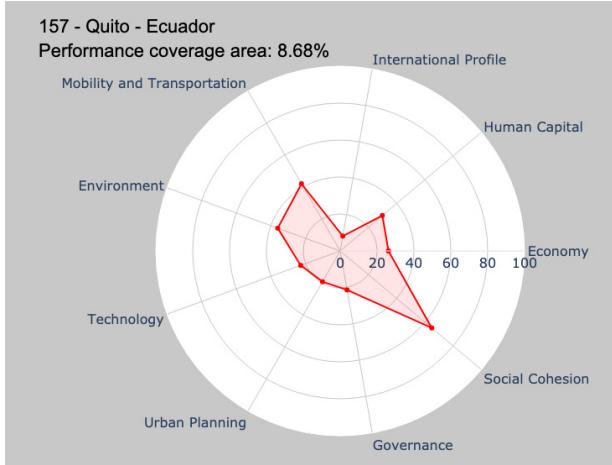


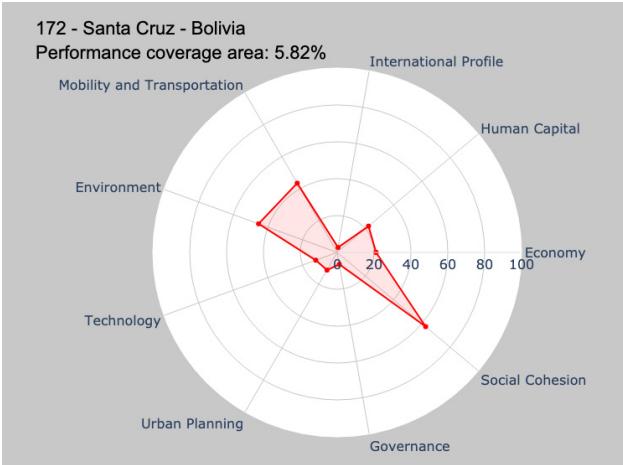
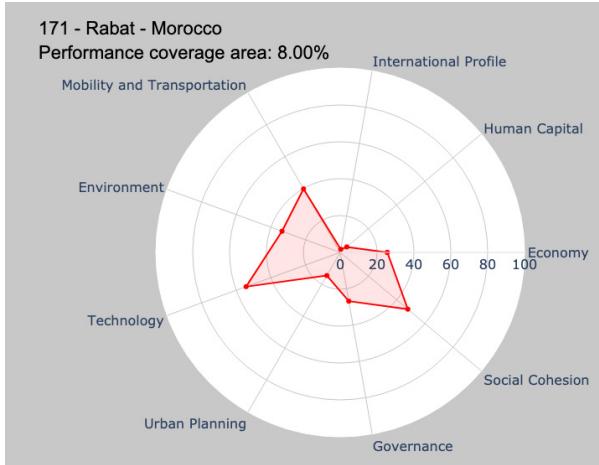
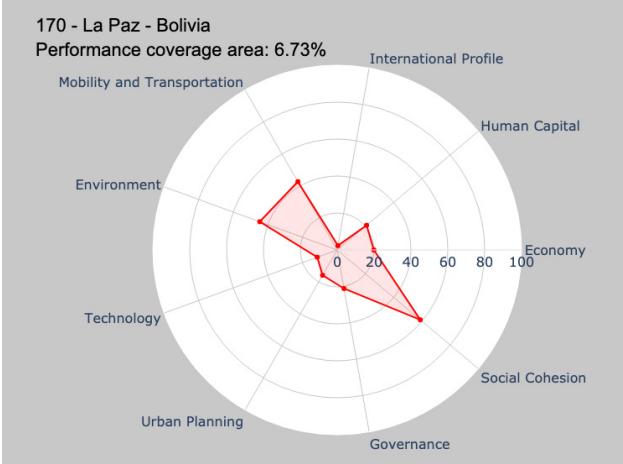
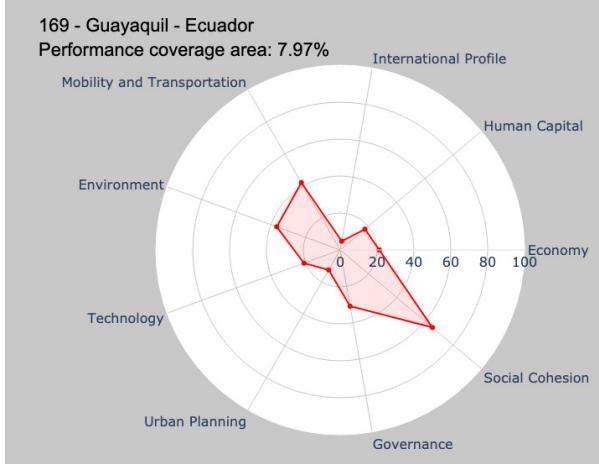
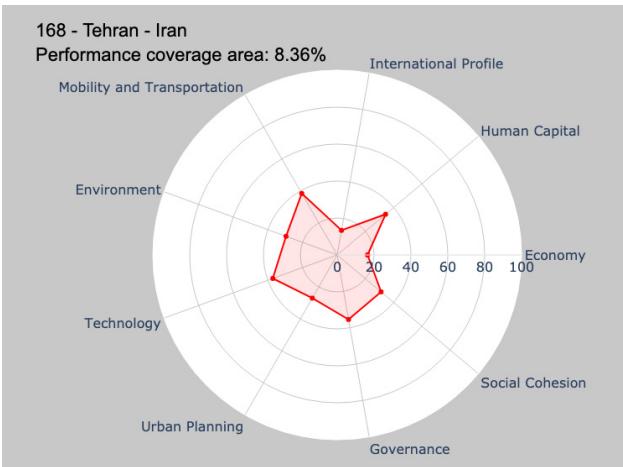
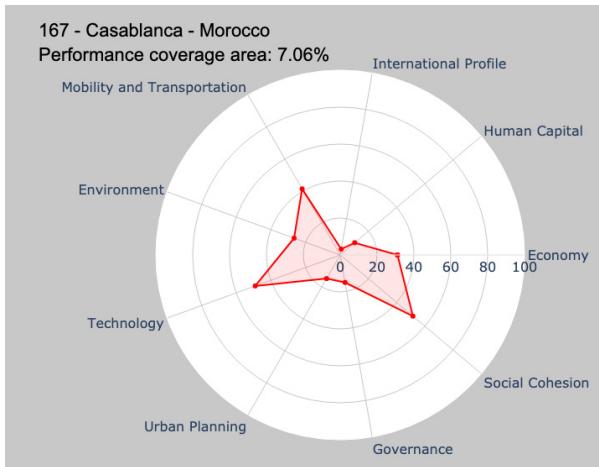
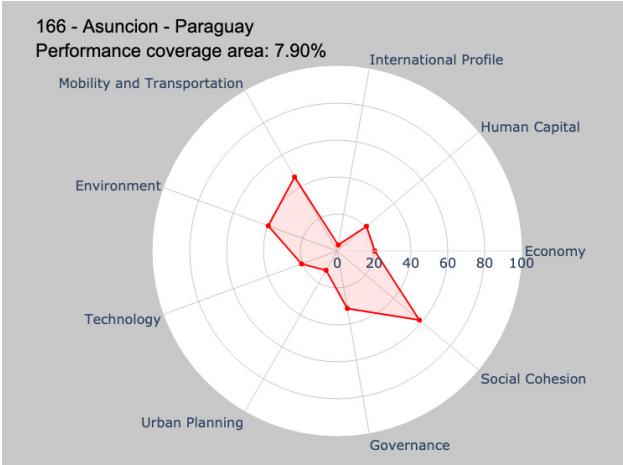


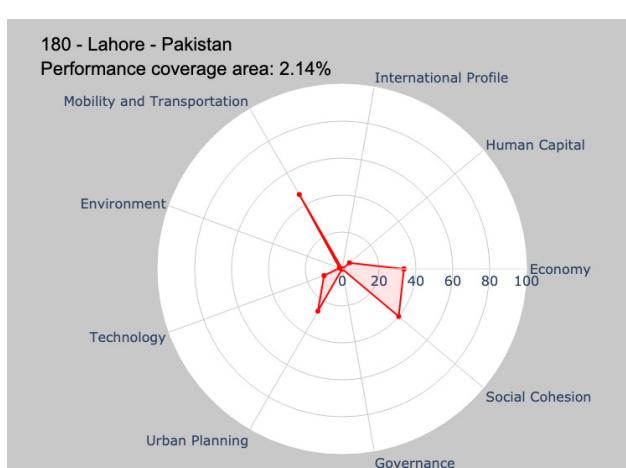
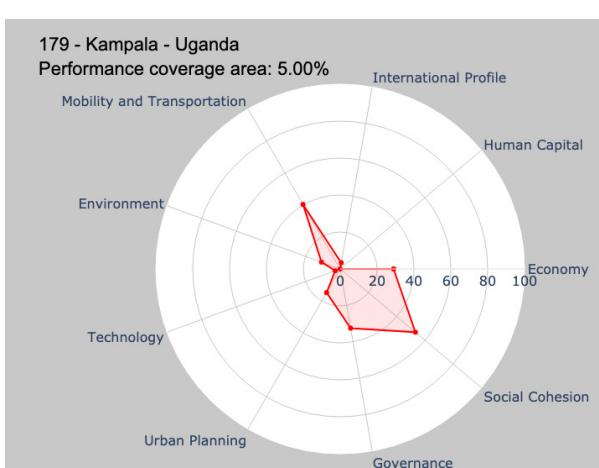
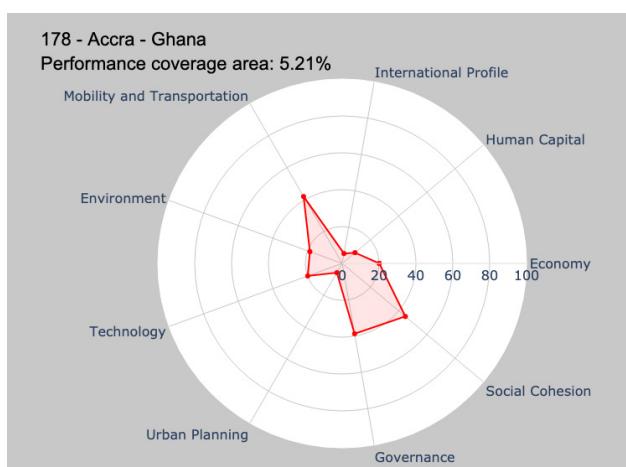
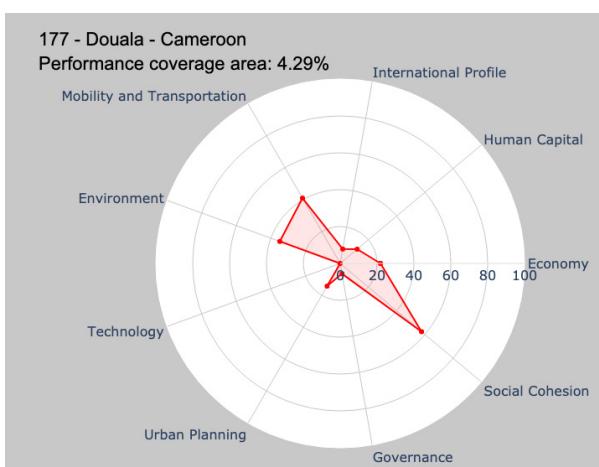
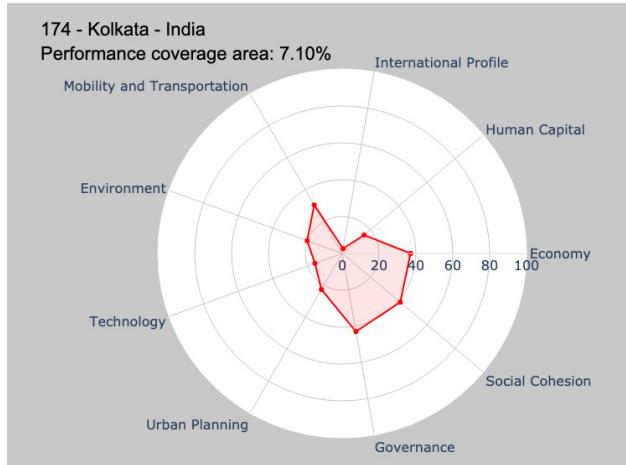
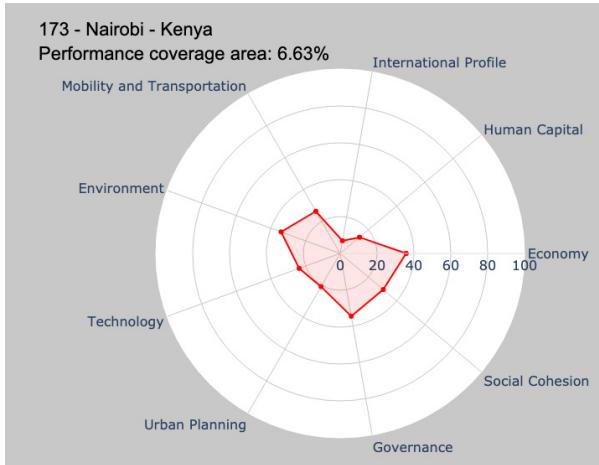


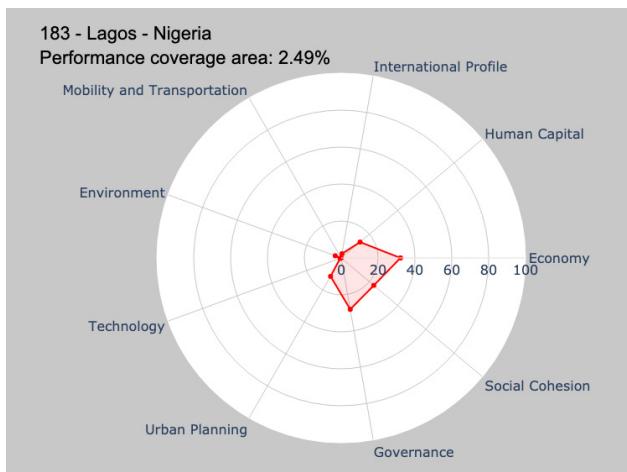
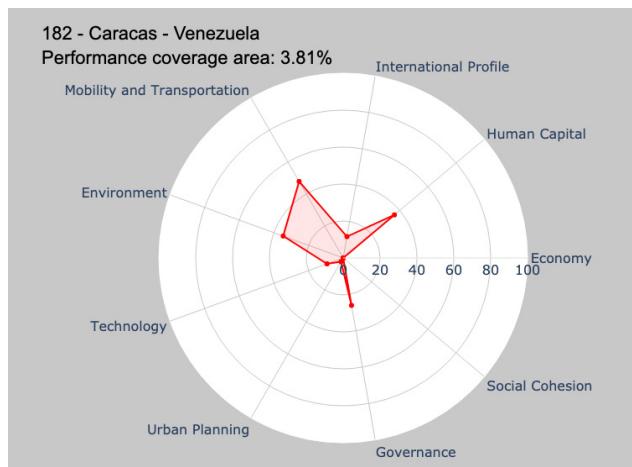
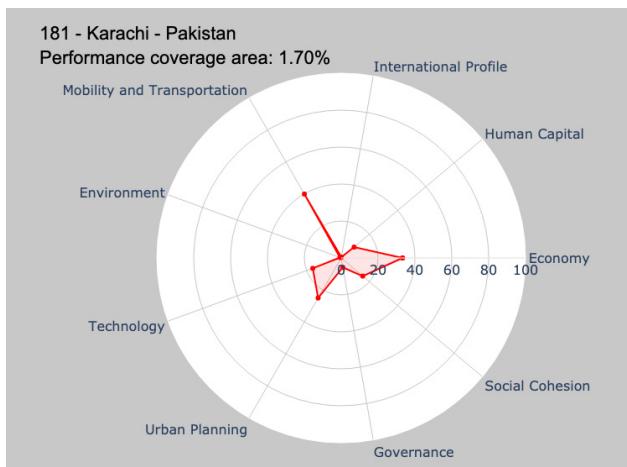












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