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FOREWORD

It is a pleasure for us to present the second edition of our Cities in Motion Index (**CIMI**), which seeks to evaluate cities as they relate to what we consider 10 key dimensions: Governance, Urban Planning, Public Management, Technology, Environment, International Outreach, Social Cohesion, Mobility and Transport, Human Capital and Economy.

As with the first edition, we faced the challenge of creating an index of cities that is superior to existing ones. Therefore, this index is objective, comprehensive, with broad coverage and guided by criteria that have conceptual relevance and statistical rigor. The first edition had a major media impact and was very well received in various forums linked to the management of cities, which has encouraged us to continue working to improve the index. During our presentations, we received many recommendations and suggestions, which we tried to incorporate in this new edition. Some of the major changes in the index this year are:

- **Increased geographical coverage**: we have increased by 10% the number of cities included in the ranking, with a total of 148 –55 of them are capitals– representing 57 countries. Among the highlights are Singapore, Hong Kong, San Francisco and Delhi.

- **Greater number of indicators:** we have increased by 35% the number of indicators that measure 10 relevant dimensions of a city, for a total of 66 indicators. In addition to sources used last year (Euromonitor, World Bank, UNESCO, Transparency International, Yale University, ICCA, Global Entrepreneurship Monitor), we have introduced new information sources such as World Health Organization, *Financial Times*, QS Top Universities, 2thinknow, Sightsmap , GaWC and Numbeo.

- **Increased variability at the city level:** as a result of the introduction of new sources of information, we were able to replace some indicators in the first edition which had been introduced at the country level with new variables at the city level, allowing an improved assessment of different cities.

- **Introduction of subjective indicators:** in addition to objective indicators used in the previous edition, one of the recommendations we received was that citizens' perceptions be incorporated. As a result, we have introduced data from Numbeo, a social network that collects information on the views that people have about cities on issues such as cost of living, access to housing, transportation, health and the environment.

- **Improved analysis:** We have added new analyses on the dynamics of the index, examining their evolution in 2012, 2013 and 2014.

- **Improvements in the methodology:** we have refined our methodology according to the latest statistical practices in creating synthetic indices.

We hope that this report will be useful to mayors, city managers, urban solutions companies and all those interest groups that aim to improve the quality of life of city inhabitants.

We see this endeavor as a dynamic project. We will continue working to ensure that future editions of the index contain better indicators, greater coverage and growing predictive value. We look forward to your suggestions for improvement and invite you to get in touch with the platform through our website: www.iese.edu/cim.

This work is the result of a collective effort that includes our team, our sponsors and many people who have participated in our workshops, meetings and training programs and who have selflessly provided us with great ideas and support. In particular, this year we want to thank IBM, which has given us the “IBM Faculty Award” for our work on cities.

We are convinced that we can live in better cities, but this will only be possible if all stakeholders —the public sector, private businesses, civic organizations and academic institutions— participate and collaborate in order to achieve this common goal. This report is our small contribution.

Prof. Pascual Berrone

Schneider Electric Sustainability
and Business Strategy Chair

Prof. Joan Enric Ricart

Carl Schroeder Chair
in Strategic Management

ABOUT US

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

The initiative unites a worldwide network of experts on cities and specialized private companies with local administrations from around the world with the objective of developing valuable ideas and innovative tools that can lead to more sustainable, smarter cities and promote changes at the local level.

The platform's mission is to promote the model of Cities in Motion, which includes an innovative approach to the governance of cities and a new urban model for the 21st century based on four main factors: a sustainable ecosystem, innovative activities, equality among citizens and a well-connected territory.

WORKING TEAM

ACADEMIC TEAM

Prof. Pascual Berrone
Schneider Electric of Sustainability and Strategy Chair

Prof. Joan Enric Ricart
Carl Schroeder Chair of Strategic Management

Carlos Carrasco
Research assistant

TECHNICAL TEAM

David Augusto Giuliodori
Econfocus Consulting

María Andrea Giuliodori
Independent researcher

CONSULTING TEAM

Juan Manuel Barrionuevo
President of the advisory board of the IESE Cities in Motion platform

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2thinknow has provided raw unfiltered actual data to the IESE professors, researchers and analysts. See http://www.citybenchmarkingdata.com or email talk@2thinknow.com

INTRODUCTION: THE NEED FOR A GLOBAL VISION

Now more than ever, cities require strategic planning. Only in this way can they begin to seek out paths for innovation and prioritize what is truly important for their future.

The strategic planning process must be participatory and flexible, with one central objective: to design a sustainable action plan which contributes uniqueness and notoriety to the metropolis. Just as no two companies can use the same recipe for success, each city must search for its own model based on a set of common considerations.

Experience shows that cities must avoid having a short-term viewpoint and expand their field of vision. They must frequently turn to innovation to improve the efficiency and sustainability of their services, promote communication and get both their people and companies involved in projects.

The time has come to exercise smart governance which bears in mind all factors and social role-players, with a global outlook.

It is because of this that, in recent decades, national and international entities have carried out studies with a focus on defining, creating and applying indicators to achieve various objectives, above all that of helping to perform a diagnosis of the status of cities. In each study, the way in which indicators are defined and the process for creating them are the result of each study's characteristics, the technical and econometric techniques which are best adapted to the theoretical model and available data, and the analysts' preferences.

At present, there are a large number of "urban" indicators, though many of them have not been standardized, or they are not consistent or comparable between cities.

In the past, numerous attempts have been made to develop indicators for cities, of a national, regional and international scale. However, few have been sustainable in the medium term, because they were studies that intended to meet the specific information needs of certain entities whose existence depended on how long their financing endured. In other cases, the system of indicators depended upon the political desires of the moment, so its creation came to a halt when political priorities or authorities changed.

However, there are also indicators specifically created by international entities that seek to achieve the consistency and strength necessary to compare cities, though in most cases these indices tend to be biased or focused on one subject matter in particular (Technology, Economy, the Environment, etc.).

The Cities in Motion Index (**CIMI**) was designed with the goal of building an indicator that "surmounts" these difficulties, in the sense that its thoroughness, properties and comparability, and the quality and objectivity of the information included, make it capable of measuring the sustainability of the largest world cities into the future, as well as their inhabitants' quality of life.

The **CIMI** seeks to allow people and governments to understand a city's performance through 10 fundamental "dimensions": Governance, Urban Planning, Public Management, Technology, The Environment, International Outreach, Social Cohesion, Mobility and Transportation, Human Capital, and The Economy. All of the indicators are combined with one strategic objective, which leads to a different type of local economic development (creating a global city, promoting an entrepreneurial spirit, innovation, etc.).

Each city is unique and exceptional. They each have their own needs and opportunities. Therefore, they must all design their own plan, which establishes priorities while remaining flexible enough to adapt to changes.

Smart cities create many different business opportunities and possibilities for cooperation between the public and private sectors. All can contribute, and therefore a networked ecosystem must be developed that involves every interest group (the people, organizations, institutions, government, universities, companies, experts, centers of research, etc.).

Working in a network provides advantages: it allows for better identification of the city's needs and those of its residents; setting common goals; establishing constant communication between different role-players; increasing learning opportunities; increasing transparency and implementing more flexible public policies. As already indicated in a report by the OECD (Organization for Economic Cooperation and Development) in 2001, a network focus ensures that local policies revolve around the people.

Private initiative also has much to gain from this system of collaboration in a network; it can cooperate with the Administration in the long term; access new business opportunities; obtain greater knowledge about the needs of the local ecosystem, increase its international visibility and attract talent.

Thanks to their technical knowledge and experience in management projects, private companies are ideal for leading and developing smart city projects, in collaboration with universities and other institutions. Moreover, they can contribute efficiency and significant savings to public-private entities.

Last of all, we must not forget that the human factor is fundamental to the development of cities. Without a participatory, active society, any strategy, no matter how intelligent and global it may be, will be destined to fail.

Beyond technological and economic development, people hold the key to making cities shift from being "smart" to "wise." That is the goal to which all cities must aspire: for the people who inhabit the city and those who govern it to put all of their talent to work in order to achieve progress.

To help cities to identify effective solutions, we have created an index that captures 10 dimensions into a single indicator and includes 148 cities worldwide. The Cities in Motion Index, due to its comprehensive and integrated view of the city, allows the identification of the strengths and weaknesses of each city.

OUR MODEL: CITIES IN MOTION

Experience shows that cities must flee a short-term vision and expand their field of view, relying more often on innovation to improve the efficiency and sustainability of their services; fostering communication and involving citizens and businesses in projects. The time has come to exercise intelligent governance that takes into account all factors, with a global vision. Through our platform, we propose a conceptual model based on the study of a large number of success stories, as well as a series of in-depth interviews with city leaders, business leaders, academics and experts related to urban development.

Our model proposes a series of steps that encompass everything from performing a diagnosis of the current situation to creating a strategy and later implementing it. The first step towards being able to perform a proper diagnosis of the situation consists of analyzing the status of the key dimensions, which we describe in the following paragraphs.

The first step toward making a good diagnosis is to analyze the situation of the key dimensions, which we set forth below.

HUMAN CAPITAL

The main objective of every city should be to improve its human capital. Therefore, it should be able to attract and retain talent; create plans to improve education, and promote creativity and research.

SOCIAL COHESION

Concerns for the social environment of the city requires an analysis of factors such as immigration, community development, care of the elderly, the efficiency of the health system, and security and civic inclusion.

ECONOMY

This dimension includes all those aspects that promote a territory's economic development: local economic promotion plans, transition plans, strategic industrial plans, the creation of clusters, innovation and entrepreneurial initiatives.

PUBLIC MANAGEMENT

This consists of actions intended to improve the efficiency of the Administration, such as designing new models of organization and management. Within this area, great opportunities are created for private initiative, which may contribute to increasing efficiency.

GOVERNANCE
People are central for solving all the challenges faced by cities. Because of this, such factors must be taken into account as people's level of participation, the authorities' ability to get business leaders and local role-players involved, and the application of e-Governance plans.

MOBILITY AND TRANSPORTATION
In this area, there are two great challenges in terms of the future: facilitating movement through cities, often of very large dimensions, and facilitating access to public services.

THE ENVIRONMENT
In this dimension, the following factors are essential to cities: improving environmental sustainability through plans to fight pollution, supporting green buildings and alternative energies, efficient management of water, and policies that help counteract the effects of climate change.

URBAN PLANNING
To improve the "livability" of any territory, one must bear in mind the local master plans and the design of green areas and spaces for public use, as well as making a commitment to intelligent growth. New urban planning methods must focus on creating compact, well-connected cities that have public services that are accessible.

INTERNATIONAL OUTREACH
Those cities that wish to progress must achieve a privileged place in the world. Maintaining global outreach means improving the city's "brand name" and its international recognition through strategic tourism plans, attracting foreign investment and having representation abroad.

TECHNOLOGY
Although cities cannot prosper through technology alone, ICTs (information and communication technologies) are a part of the backbone of any society that wishes to call itself "smart."

INDICATORS

HUMAN CAPITAL
In this dimension, representative indicators were taken that were related to the proportion of the population with secondary and higher level (PHS) studies; the number of top-level business schools (MBAR); the flow of international students in each city or country (IFS); the number of universities (WUR); the number of museums per 100,000 inhabitants (NM); the number of art galleries per 100,000 inhabitants (NAG); and spending on leisure and recreation (CER).

While human capital presents factors that make it more extensive than can be measured by these indicators, there is international consensus that education and access to culture are essential components in the measurement of human capital. In fact, one of the pillars of human development is human capital, and considering that the Human Development Index published annually by the United Nations Development Programme (UNDP) includes education and culture as dimensions, it is valid to take these indicators as explanatory of differences in human capital in a city.

For the **CIMI**, the proportion of the population with secondary and higher level (PHS) studies; the number of business schools (MBAR); the flow of international students in each city or country (IFS) and the number of universities (WUR), are considered positive.

As a measure of access to culture, the number of museums, the number of art galleries and spending on leisure and recreation, all directly related to the indicator, are considered. These indicators show the commitment that a city has to culture and human capital. Creative and dynamic cities worldwide tend to have museums and art galleries open to the public and offer visits to art collections and events dedicated to the preservation of art. The existence of a city's cultural and recreational offerings implies greater spending by the population on these activities

SOCIAL COHESION
Social Cohesion is a sociological dimension of cities, defined as the degree of consensus of the members of a social group or the perception of belonging to a common project or situation. It is a measure of the intensity of social interaction within the group. Social Cohesion in the urban context refers to the degree of coexistence between groups of people with incomes, cultures, ages and different professions who live in a city. The presence of various groups in the same space and mixing and interaction between groups is central to a sustainable urban system. In this context, social cohesion is a state in which there is a shared vision between citizens and the Government on a model of society based on social justice, the primacy of the rule of law and solidarity. This allows us to understand the relevance of policies to promote social cohesion based on democratic values.

Following the approach of measuring social cohesion adopted by the various indicators available, the following have been selected: the ratio of deaths per 100,000 po-

pulation (DR); crime index (CI); Health index (HCI); the unemployment rate (EBU); the Gini index (GIN); and the price of property as a percentage of income (PPIR).

This selection of indicators attempts to include all of the sociological sub-dimensions that Social Cohesion contains. Health and the expectations of future society are represented, in this case, by the ratio of deaths per 100,000 inhabitants, with the crime rate, both having a negative bearing and the healthcare index, with a positive bearing to this dimension.

Employment is a fundamental factor in societies, to the extent that its lack can break consensus or the implicit social contract, according to historical evidence, so the unemployment rate (UER) is incorporated with a negative sign in the creation of the indicator for this dimension. The GIN is an index calculated from the Gini coefficient and measures social inequality.

It assumes a value equal to 0 for situations where there is a perfectly equitable income distribution (everyone has the same income) and assumes a value of 100 when income distribution is quite inequitable (one person has all the income and others none). This indicator is incorporated into the Social Cohesion dimension with a negative sign, since a higher index value has a negative impact on cohesion.

Meanwhile, the price of the property as a percentage of income is linked negatively, since a greater percentage of income is needed to buy a property diminishes the incentives to belong to society in a particular city.

ECONOMY

Indicators used to show the economic dimension of a city's performance are: gross domestic product (GDP) in millions of dollars at constant 2013 prices; productivity, measured in dollars according to the labor force (LPR); the time required to start a business measured in days (TSB); ease in regulatory terms to start a business (EDB); the number of parent (headquarters) of listed companies (NHQ); and the rate of early-stage entrepreneurial activity (TEA), defined as the percentage of a population between 18 and 64 years old who are incipient entrepreneurs or business owner/administrators of new businesses (no more than 42 months).

Bearing in mind that the **CIMI** attempts to measure, through multiple dimensions, the future sustainability of the largest cities in the world and the standard of living of their inhabitants, real GDP is one measurement of the city's economic power and the income of its inhabitants, which, in turn, is an important measurement of the quality of life in cities. In numerous studies, GDP is considered to be the only measurement or most important measurement of a city's or country's performance. However, in this report, it is not considered to be exclusive nor the most relevant factor; instead it is just one further indicator among 10 dimensions of the **CIMI**. For example, if a city with a high or relatively high GDP does not have a good performance level in other indicators, it may not be placed among the top ranks. A highly productive city, for instance, that has problems with transportation, inequality, weak public finance or a production process that uses polluting technology, will probably not appear among the top positions in the ranking.

LPR is a measurement of the strength, efficiency and technological level of the production system, which, as regards local and international competitiveness, will obviously affect real salaries and the return on capital, business profits. These are all reasons why it is very important to include it within the dimension of the Economy. Varied productivity levels may explain differences in the standard of living of a city's workers and the sustainability of the productive system over time.

Other indicators selected as being representative of this dimension make it possible to measure certain aspects of a city's business environment, such as the number of headquarters for publicly traded (NHQ) companies, capacity and entrepreneurial opportunities for the inhabitants of a city (TEA), time required to start a business (TSB) and ease of starting a business in regulatory terms (EDB). These indicators measure the capacity for sustainability over time of a city and potential ability to improve the quality of life of its inhabitants. The TSB and EDB indicators are incorporated into the Economy dimension with a negative bearing, since lower values indicate greater ease of starting a business, while the NHQ and ASD have a positive relation, since high values in these indicators reflect cities prepared for the creation and development of businesses.

PUBLIC MANAGEMENT

Public Management is understood in this report to be highly correlated with a city's or country's state of public finance. In this sense, public accounts have a decisive effect on citizens' standard of living and on the sustainability of a city, insofar as it determines the level of present and future taxes which the people and system of production must pay; the expected increase in the general level of prices; potential public investment in basic social infrastructure, and the incentives aimed at private investment. Moreover, if the State has a need for funds as a result of a weak public finance system, it will compete with the private sector for the funds available in the financial system, thereby affecting investment.

The indicators that represent this dimension in this report are the tax ratio in relation to the commercial benefits (TAX), the level of central bank reserves (TR), the level of reserves per capita (TRPC), the type of government (TG), the local government scandals reported in the media (SC), the number of embassies (NE), and the number of Twitter users listed in prominent Twitter directories (NDTU).

The indicator related to the tax system (TAX), which is incorporated with a negative bearing on the value of the synthetic indicator of this dimension, covers aspects of the status of public finances, since the greater the tax burden, the weaker a city's public accounts become. The TAX measures the amount of taxes and mandatory contributions paid by businesses after accounting for allowable deductions and exemptions as a share of commercial profits. This excludes withheld taxes (such as personal income tax) or those collected and remitted to tax authorities (such as value added taxes, sales taxes or taxes on goods and services).

The level of reserves is an indicator of the strength in the short and medium term of public finances, their ability to cope with changing economic cycles, and the strength and sustainability of the economic structure in relation to the State.

The government type indicator (TG) differentiates between states with participatory governments and those that are not. Participatory governments promote the development of sustainable cities as they have a more transparent, efficient, close and participative management.

Local government scandals reported in the media (SC) refer to corruption, violence, crime, drugs, etc. A city with more scandalous situations is a city less prepared to carry out strategic plans for innovation and development. This indicator is incorporated with a positive bearing because cities with biggest scandals assume a value of 1 in a reserved scale that goes from 1 to 4.

The number of embassies (NE) is an indicator of the international importance of the city to global standards and is based on the allocation of embassies that are made to the city by foreign countries.

The number of active Twitter users with public data contained in the Twellow (NDTU) directory are those who self-identified as opinion leaders (e.g., activists, prominent critics of the government, business leaders, writers, journalists, etc). Twitter tends to be utilized by opinion leaders, so global directories provide a guide to the prominence of dissenting voices and ideas within cities. In some authoritarian countries, publishing points of view and opinions as a thought leader is taking a risk, therefore there will be fewer critical leaders in Twitter directories. This indicator has a positive bearing.

GOVERNANCE

Governance, a term commonly used to refer to the effectiveness, quality and proper orientation of State intervention, is represented by four indicators in this report: the Strength of Legal Rights Index (SLR), the Corruption Perceptions Index (CPI), the number of functions of the innovation department of the city (IDF) and the quality of web services of the local government (GWS). The SLR has been incorporated with a positive bearing and measures the degree to which collateral and bankruptcy laws protect the rights of borrowers and lenders and thus facilitate lending. The values range from 0 = low to 12 = high, where higher scores indicate that laws are better designed to expand access to credit. It is a vital role of national or local states to create conditions and ensure effective enforcement of the rights of citizens and companies based in its territory. The perception of compliance with legal rights affects all aspects of life in a country or city, as well as the business environment, investment incentives or legal certainty, among others.

The index of perceived government corruption is a way of measuring the quality of governance, since a high perception of corruption in public statements by the public is an indication that government intervention is not efficient from the standpoint of the social economy, due to the fact that utilities –understood in a broad sense– involve costs that would be higher than if corruption did not exist. In addition, incentives to invest or settle in countries or cities with a high perception of corruption will be lower than in others with low levels, thus negatively influencing the sustainability of the country or city. In the case of the **CIMI**, it is taken as an explanatory indicator of the governance dimension, with a positive bearing, following the manner of calculating the index by Transparency International, which assigns a value of 0 for countries with high corruption and 100 for highly transparent countries.

The department of innovation represents a central point of any government policy. The number of functions of this department is an indicator of governmental support of these policies. Therefore, IDF has a positive influence, as departments that have a greater number of functions show greater support for innovation.

The quality of government web services is an evaluation of a government's capacity to respond to the technological functions of a city, and the needs of its citizens and visitors (i.e., users of a city). No city can afford to ignore a commitment with users in their city, and every city should have an optimal presence on the internet This indicator has a positive bearing, since higher values relate to higher quality of web services.

ENVIRONMENT

The sustainable development of a city can be defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."[1]. In this sense, the environment is very important because current sustainability to meet the needs of future generations is closely related to this dimension. Since the **CIMI** also aims to measure the environmental sustainability of cities, the environment is included as one of the aspects to be measured.

The indicators selected for this dimension are CO_2 emissions (CO2), the rate of CO_2 (CO2i), methane emissions (MET), improvements in water supply as a percentage of total population with access to this (H2O); the PM2.5 and PM10, and the pollution index (PI) and the environmental development index (EPI).

As can be inferred, the first four selected indicators include measurements of air pollution sources and water quality in cities, which are indicators of the quality of life of their inhabitants; and the sustainability of their production or urban matrix. Emissions of carbon dioxide arise from burning fossil fuels and cement production, while methane emissions arise from human activities such as agriculture and industrial production. CO_2 and methane emissions are the factors most commonly used to measure the degree of air pollution, since they are substances that have much to do with the greenhouse effect. In fact, a decrease in the values of these indicators is included as a target in the Kyoto Protocol.

Another important indicator of air pollution in cities are PM2.5 and PM10, a denomination corresponding to small particles, solid or liquid, dust, ash, soot, metal particles, cement or pollen dispersed in the atmosphere and whose diameter is less than 2.5 and 10 micrometers (microns) respectively. These particles are formed mainly by inorganic compounds such as silicates and aluminates, heavy metals and organic material associated with carbon particles (soot). This indicator is commonly used in the indexes to measure pollution in the environment. These indicators are supplemented with information provided by the pollution or contamination index (PI) of a city, which estimates the overall pollution in the city. The greatest weight is given to cities with more air pollution.

Last of all, the EPI (Environmental Performance Index), calculated by Yale University, is an indicator based on the two large dimensions related with the environment: Environmental Health and Ecosystem Vitality. The first is divided into three sub-dimensions: effects of air pollution on human health; effects of water quality on human health, and environmental load of diseases. Ecosystem Vitality has seven sub-dimensions: effects of air pollution on the ecosystem; effects of water quality on the ecosystem; biodiversity and habitat; forestation; fish; agriculture, and climate change. Given the thorough nature of this indicator –because it includes nearly all of the aspects involving the measurement of a city's environmental status and changes in a city's environment, complemented by the other four indicators which are included in the **CIMI**– the dimension of The Environment is considered to have been represented in a well-proportioned manner.

Indicators which represent PM10 and PM.2, CO_2 and methane emissions the pollution index are considered to have a negative bearing on the dimension, whereas the remaining indicators have a positive effect on the environment.

MOBILITY AND TRANSPORTATION

Mobility and Transportation, in terms of both the highway and road infrastructure and the automobile fleet and public transportation, affect the standard of living of a city's inhabitants and may be vital to the sustainability of cities across time. However, perhaps the most important is not this, but rather the externalities that are produced in the productive system, due both to the labor force's need to commute and the need for production output. Consequently, considered as representative of this dimension were the traffic index (TI), the index of inefficiency (INIDX), the number of road accidents per 100,000 inhabitants (RIA), the number of subway stations per 100,000 (NS) and the number of air routes (inputs and outputs) a city has (NF).

The first three indicators are a measure of the efficiency and safety of roads and public transportation which, if effective and has good infrastructure, promotes a decrease in vehicular traffic on the roads and reduces the number of accidents. The IT and INIDX are estimates of the inefficiencies in traffic caused by long driving times, as well as by dissatisfaction that these situations generate in the population. These indicators, as well as the number of road accidents, are included with a negative bearing since they have a negative impact on the development of a sustainable city.

The number of subway stations per 100,000 inhabitants (NS) is an indicator of commitment to the development of the city and investment relative to population size. The number of air routes (inputs and outputs) a city has (NF) represents the infrastructure in place to facilitate commercial air routes and therefore, movement and passenger traffic. Both indicators are included with a positive bearing due to the positive influence they have on this dimension.

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

URBAN PLANNING

A city's urban planning involves various sub-dimensions and is closely related with a city's sustainability. Deficient urban planning leads to a decrease in people's standard of living in the medium term. It also has a negative effect on investment incentives, because a city which is not planned or is poorly planned creates difficulties and increases the costs of logistics and employee transportation, while affecting other factors.

Based on available information, indicators of this dimension are incorporated as measures of the quality of health infrastructure (ISF), the number of people in a household (OCC), the bicycle circulation system (BL) of a city, the number of bike shops per 100,000 inhabitants (NBS) and the number of architects per 100,000 inhabitants (NA).

The quality of health infrastructure (ISF) refers to the percentage of population with at least adequate access to excretion disposal facilities that can effectively prevent human, animal and insect contact with excretion. To be effective, facilities must be correctly built and undergo proper maintenance. This indicator is highly correlated with Urban Planning, as it can demonstrate what inevitably becomes poor planning in health problems in the short and medium term.

Additionally, from the point of urban-dwelling view, a city with proper urban planning has generally little or no overcrowding in homes, since usually housing policy in relation to the estimated growth of the population urban is a determining factor in urban planning. Therefore, within the explanatory indicators of this dimension, the number of occupants per household (OCC) was related negatively.

The bicycle is a means of effective, fast, cheap, healthy and environmentally-friendly transportation. The use of this transportation makes a positive impact on the sustainable development of a city, since it does not pollute or make use of fuels, among other benefits. Considering this positive effect, two indicators associated with this means of mobility are introduced here. The presence of infrastructure dedicated to bicycle traffic (BL) paths indicates a city's commitment to the culture using this medium. This indicator measures the extent and quality of bike lanes in a city. It has a positive bearing, because cities with highest value are those with more developed bike path systems. Also, the number of bike shops per 100,000 inhabitants (NBS) is a positive indicator of the actual use of bicycles (through equipment sales and repairs). This has a positive bearing.

Another indicator considered is the number of architectural firms (small, medium and large) that are dedicated to carrying out projects within a city, per 100,000 inhabitants (NA). Engineers, architects and planners are key to the urban transformation of a city, therefore this indicator has a positive impact on the index calculation.

INTERNATIONAL OUTREACH

Cities within the same country can have more or less International Outreach in relation to each other, but this is not independent of the degree of its own openness. This dimension is intended to include these differences and measure the International Outreach of cities.

In this sense, we have included the following indicators: international tourist arrivals (ITA); number of passengers by airlines (AEP), number of hotels in a city (NH), ranking of those most photographed in the world, according SightsMap (SM) and the number of meetings and conferences taking place in a city (MIT), according to data from the Meeting the International Congress and Convention Association. The latter is an important indicator of the International Outreach of a city, given that these events usually take place in cities with international hotels, rooms specially equipped for such purposes, positive frequency of international flights, and appropriate security measures.

All indicators of this dimension, with the exception of SM, have a positive impact on the calculation of the **CIMI** since the higher the values of the indicators, the greater the city's outreach in the world. SM is introduced with a negative bearing, since the top-ranking positions correspond to the most photographed cities.

TECHNOLOGY

Technology, as an integral dimension of CIM, is an aspect of society which improves the current standard of living, and its level of development or widespread usage is an indicator of a society's achieved or potential quality of life. Moreover, technological development is a dimension that allows cities to be sustainable across time, and to maintain or expand the competitive advantages of their production system and the quality of employment. A city that is technologically outdated has comparative disadvantages with other cities, both from the perspective of safety, education and health, which are fundamental aspects in society's sustainability, and from the perspective of the productive system, which as a result ends up with outmoded production tasks that make it difficult to achieve competitiveness without protectionism, a factor which has a negative effect on the city's ability to consume and invest, as well as reducing productivity in the workplace.

Indicators selected to measure the performance of cities in terms of technological reach and growth in cities are: the number of broadband Internet users per 100 inhabitants (FIS) - country-level data on the number of broad-

band users within a city (BIU), the number of IP addresses assigned to the city (NIAR), the number companies that offer wifi hotspots (NBW), the number of Facebook users per 1,000 inhabitants, (NF) the number of mobile phones per capita (NMPC), the quality of the websites of municipalities (QMW) and the Innovation Index (ICI), published by the Innovation Cities Program.

The first indicator (FIS) is country-level data and has a high correlation with the overall technological advancement of a city, since technological development of applications and devices is necessary for its efficient use. Complementing the FIS, the citywide indicator, BIU, which represents the number of broadband users within a city as a measure of technological development is employed. The BIU includes wired and wireless connections. The number of IP addresses assigned to the city (NIAR) is a commercial indicator of Internet adoption by citizens. Businesses and citizens equipped for Internet create economic value in the economy through the use of devices and therefore the allocation of IP addresses. The number companies that offer wifi hotspots (NBW) indicates the number of quality business wifi hotspots listed in major global directories. The number of Facebook (NF) users per 1,000 inhabitants measures the penetration of Facebook (or in the case of China, Ren Ren) within the city, based on real data from Facebook. Facebook is the network of social media par excellence, and continues with high penetration rates in many global markets. Facebook data for 2014 are provided by Facebook. For years prior to 2014, algorithmic estimates were used. This indicator is incorporated with a positive bearing. The number of mobile phones per capita (NMPC) is obtained through national data, population data and demographic information. This indicator has a positive influence, since the higher the use of mobile telephony, the more open a society is to the use of technology. The quality of a municipality's website (QMW) is an indicator reflecting the government's commitment to Information Technology policies. If a local government wants to promote the development of technologies of information and communication (ICT) in the local business sector, it is necessary that its own websites offer good quality services, showing support for strategies in this crucial sector. The ICI index is calculated by making evaluations based on various technological innovation factors in cities, in sectors such as health, general economy or of the population, among others, currently reflecting the most comprehensive indicator to measure the degree of innovation development in cities. This is methodologically divided into three aspects or dimensions: cultural, human infrastructure and networked markets. All indicators of this dimension directly relate to the technological dimension and therefore have a positive bearing.

Table 1 describes, in summary, the indicators used in each of the dimensions, description, units of measure and sources of information.

TABLE 1. INDICATORS

NO.	INDICATOR	INITIALS	DESCRIPTION / UNIT OF MEASURE	DIMENSION / CLUSTER	SOURCE
1	Population with secondary and high education	PSH	Proportion of population with secondary and higher education	Human Capital	Euromonitor
2	FT Global MBA Ranking	MBAR	Number of business schools (TOP 100)	Human Capital	Financial Times
3	International flows of mobile students at the tertiary level	IFS	International movement of higher education students. Number of students.	Human Capital	UNESCO
4	QS World University Ranking 2013	WUR	Number of universities	Human Capital	QS Top Universities
5	No. of Museums per 100,000 inhabitants	NM	Number of museums per 100,000 inhabitants	Human Capital	2thinknow
6	No. of Public Art Galleries per 100,000 inhabitants	NAG	Number of art galleries per 100,000 inhabitants	Human Capital	2thinknow
7	Consumer Expenditure on Leisure and Recreation per capita	CER	Spending on leisure and recreation. Expressed in Millions of USD 2013 prices.	Human Capital / Country Cluster	Euromonitor
8	Death Rate	DR	Ratio of deaths per 100,000 population	Social Cohesion	Euromonitor

NO.	INDICATOR	INITIALS	DESCRIPTION / UNIT OF MEASURE	DIMENSION / CLUSTER	SOURCE
9	Crime Index	CI	Crime rate	Social Cohesion	Numbeo
10	Health Care Index	HCI	Health index	Social Cohesion	Numbeo
11	Unemployment Rate	UER	Unemployment rate (number unemployed / labor force)	Social Cohesion	Euromonitor
12	Gini Index	GIN	Gini index, varies from 0-100, with 0 being perfect equality and 100 perfect inequality	Social Cohesion	Euromonitor
13	Property prices to income ratio	PPIR	Price of property as a percentage of income	Social Cohesion	Numbeo
14	Total GDP	GDP	GDP in million USD at 2013 prices	Economy	Euromonitor
15	Labour Productivity	LPR	Labor productivity measured as GDP / employed population (in thousands)	Economy	Euromonitor
16	Time Required to Start a Business	TSB	Number of calendar days required to make legally operable a business	Economy	World Bank
17	Ease of Doing Business Rank	EDB	Ease of starting a business. Top positions in the rankings indicate a more favorable regulatory environment for the establishment and operation of a local business.	Economy	World Bank
18	Global Command and Control Centres	NHQ	Number of parent (headquarters) of publicly traded companies	Economy	Globalization and World Cities (GaWC)
19	Total Early Stage Entrepreneurial Activity	TEA	Percentage of population aged 18-64 who is an incipient entrepreneur or owner / operator of a new business	Economy	Global Entrepreneurship Monitor
20	Total tax rate (% of commercial profits)	TAX	Total tax rate. Measures the amount of taxes and mandatory contributions paid by businesses after accounting for allowable deductions and exemptions as a share of commercial profits.	Public Management	World Bank
21	Total reserves	TR	Total reserves in millions of USD	Public Management	World Bank
22	Total reserves per cápita	TRPC	Per capita reserves in millions of USD	Public Management	World Bank
23	Type of Government	TG	Government type. Binary variable where 1 corresponds to systems of participatory government.	Public Management	2thinknow
24	Severity of Local Reported Scandals	SC	Local government scandals reported in the media. Rating assigned to 1-4 according to the gravity of scandal (murder, violence, drugs / crime, corruption), where extreme situations of scandal assume a value of 1 in a reserved scale that goes from 1 to 4.	Public Management	2thinknow
25	No. of Embassies per 100,000 People	NE	Number of embassies per 100,000 people	Public Management	2thinknow

NO.	INDICATOR	INITIALS	DESCRIPTION / UNIT OF MEASURE	DIMENSION / CLUSTER	SOURCE
26	No of Directoried Twitter Users	NDTU	Twitter users listed in prominent Twitter directories (e.g. Twellow). Includes users who define themselves as leaders (e.g., writers, activists, business leaders, journalists, etc.) users. In thousands of persons.	Public Management	2thinknow
27	Strength of Legal Rights Index	SLR	The index of strength of legal rights measures the degree to which collateral and bankruptcy laws protect the rights of borrowers and lenders and thus facilitate lending. The values range from 0 = low to 12 = high, where higher scores indicate that laws are better designed to expand access to credit.	Governance	World Bank
28	Corruption Perceptions Index	CPI	Index of perception of corruption. The values range from 0 = very corrupt to 100 = very transparent	Governance	Transparency International
29	Innovation Department Functions	IDF	Number of functions of the innovation department (or ministry, if any) of the city	Governance	2thinknow
30	Govt Web Service Assess	GWS	Websites of local government services. Measures the quality of web services for all users of the municipality (residents and visitors). Scale of 1 to 4.	Governance	2thinknow
31	CO_2 Emissions	CO2	Emissions of carbon dioxide from burning fossil fuels and cement manufacturing. Measured in kilotons (kt).	Environment	World Bank
32	CO_2 Emission Index	CO2I	CO_2 emission rate	Environment	Numbeo
33	Methane emissions	MET	Methane emissions arising from human activities such as agriculture and industrial production of methane. Measured in kt CO_2 equivalent	Environment	World Bank
34	Improved water source, urban (% of urban population with access)	H2O	Percentage of the population with reasonable access to an adequate amount of water coming from an improvement in the water supply.	Environment	World Bank
35	PM2.5 Annual Mean-micrograms per cubic meter	PM25	PM2.5 measures the amount of airborne particles whose diameter is less than 2.5μm. Annual average.	Environment	World Health Organization
36	PM10 Annual Mean-micrograms per cubic meter	PM10	PM10 measures the amount of airborne particles whose diameter is less than 10 microns. Annual average.	Environment	World Health Organization
37	Pollution Index 2014	PI	Pollution Index	Environment	Numbeo
38	Environmental Performance Index	EPI	Environmental performance index (1 = poor to 100 = good)	Environment	Yale University
39	Traffic Index	TI	Traffic rate estimation is based on time spent in traffic and generated dissatisfaction. Estimates of consumption of CO_2 and other traffic system inefficiencies are also included.	Mobility and Transportation	Numbeo

NO.	INDICATOR	INITIALS	DESCRIPTION / UNIT OF MEASURE	DIMENSION / CLUSTER	SOURCE
40	Inefficiency Index	INIDX	Inefficiency index is an estimate of traffic inefficiencies. High values represent high inefficiencies in driving, such as long travel times.	Mobility and Transportation	Numbeo
41	Road Injury Accidents	RIA	Number of road accidents per 100,000 population	Mobility and Transportation	Euromonitor
42	No. of Subway/Metro Stations	NS	Number of metro stations per 100,000 population	Mobility and Transportation	2thinknow
43	No. of Flights In/Out 2012	NF	Number of flights in and out (air routes) in a city	Mobility and Transportation	2thinknow
44	Improved sanitation facilities (% of population with access)	ISF	Percentage of population with at least adequate access to excretion disposal facilities that can effectively prevent human, animal and insect contact with excretion.	Urban Planning	World Bank
45	Occupants per Household	OCH	Number of people per household	Urban Planning	Euromonitor
46	Bicycle Lanes	BL	Bicycle circulation system. Coding of 1 to 4, where the highest value corresponds to cities that have a well-developed bicycle circulation system.	Urban Planning	2thinknow
47	No. of Bicycle Shops per 100,000 inhabitants	NBS	Bike shops per 100,000 inhabitants	Urban Planning	2thinknow
48	No. of Architect Firms per 100,000 inhabitants	NA	Number of architects per 100,000 inhabitants	Urban Planning	2thinknow
49	International Tourist Arrivals	ITA	Number of international tourists that visit the city. In thousands.	International Outreach	Euromonitor
50	Airline Passengers	AEP	Number of airline passengers. In thousands	International Outreach	Euromonitor
51	No. of Hotels per 100,000	NH	Number of hotels per 100,000 inhabitants	International Outreach	2thinknow
52	Sightsmap	SM	Ranking of cities according to the number of photos taken in the city and uploaded to Panoramio (online community to share photographs). The first positions correspond to cities with more pictures.	International Outreach	Sightsmap
53	Numbers of Meetings	MIT	Number of international conferences and meetings held in a city.	International Outreach	International Meeting Congress and Convention Association
54	Fixed broadband Internet Subscribers	FIS	Number of subscribers per country to a broadband digital subscriber line, modem cable modem or other high-speed technology, per 100 inhabitants.	Technology	World Bank
61	Broadband Internet Users	BIU	Number of broadband users within a city, including wired and wireless connections.	Technology	2thinknow

NO.	INDICATOR	INITIALS	DESCRIPTION / UNIT OF MEASURE	DIMENSION / CLUSTER	SOURCE
59	No. of Internet Addresses Registered	NIAR	Number of IP addresses assigned to the city	Technology	2thinknow
56	No. of Business Grade WIFI Hotspots	NBW	Number companies offering wifi hotspots. Change of data source from 2012 to 2014.	Technology	2thinknow
57	No. of Facebook Users	NF	Number of Facebook users per 1,000 inhabitants	Technology	2thinknow
58	Mobile numbers per cápita	NMPC	Number of mobile phones per capita	Technology	2thinknow
60	Quality of Municipality Websites	QMW	Quality of municipality websites. Scale of 0-5, the maximum corresponding to the web with better quality services.	Technology	2thinknow
55	Innovation Cities Index	ICI	Innovation Index. Rating 0 = no innovation to 60 = much innovation.	Technology	Innovation Cities Program
62	Population	POP	Number of inhabitants	City/Country	Euromonitor
63	Average Household Annual Disposable Income by Decile (Decil 1)	DE1	Income (annual average). Decile 1. Expressed in USD.	City Cluster	Euromonitor
64	Average Household Annual Disposable Income by Decile (Decil 2)	DE5	Income (annual average). Decile 2. Expressed in USD.	City Cluster	Euromonitor
65	Average Household Annual Disposable Income by Decile (Decil 5)	DE7	Income (annual average). 5. decile Expressed in USD.	City Cluster	Euromonitor
66	Average Household Annual Disposable Income by Decile (Decil 7)	DE9	Income (annual average). Decile 7. Expressed in USD.	City Cluster	Euromonitor
67	Average Household Annual Disposable Income by Decile (Decil 9)	ER	Income (annual average). Decile 9. Expressed in USD.	City Cluster	Euromonitor
68	Employment Rate	CEE	Percentage of employed population.	Country Cluster	Euromonitor
69	Consumer Expenditure on Education per capita	CEHC	Education spending per capita. Expressed in Millions of USD 2013 prices.	Country Cluster	Euromonitor
70	Consumer Expenditure on Health Goods and Medical Services per capita		Medical and health expenditures per capita services. Expressed in Millions of USD 2013 prices.	Country Cluster	Euromonitor
71	Consumer Expenditure on Hotels and Catering	CEH	Expenses in hospitality and catering services per capita. Expressed in Millions of USD 2013 prices.	Country Cluster	Euromonitor
72	Consumer Expenditure on Housing per capita	CEH	Housing expenditure per capita. Expressed in Millions of USD 2013 prices.	Country Cluster	Euromonitor

INDICATOR LIMITATIONS

Perhaps the most important limitation in calculating the **CIMI** relates to availability of data. However, several actions were implemented to minimize the impact of this limitation. First, for indicators that did not have available data for the analysis period, extrapolation techniques were used. For situations in which the values of the indicator at the citywide level were inexistent, but had valid values on a relevant countrywide level, individual values were assigned to each one, relating the indicator on an average country level with another variable theoretically linked on a city level. Lastly, there were cases in which indicator values were nonexistent for a specific city or group of cities for the period considered. In these cases, statistical clustering techniques were used. The scope and detail of these tools are explained in the complementary document, "Methodology and Modeling" for 2014.

At the IESE Cities in Motion platform, we continue working for more complete and accurate indicators, while we ask that cities facilitate access to the information generated.

GEOGRAPHIC COVERAGE

To calculate the **CIMI**, 148 cities were analyzed, 13 of which were added to the group last year. These new cities were selected based on their population size and economic, cultural, political importance to the country to which they belong. Therefore, 148 cities were included in this study with the geographical distribution shown in Table 2.

TABLE 2 . GEOGRAPHIC DISTRIBUTIN

Africa	Asia	Western Europe		North America
Alexandria - Egypt	Beijing - China	Berlin - Germany	Amsterdam - The Netherlands	Montreal - Canada
Cairo - Egypt	Guangzhou - China	Colonia - Germany	Eindhoven - The Netherlands	Ottawa - Canada
Cape Town - South Africa	Chongqing - China	Duisburg - Germany	Lisbon - Portugal	Toronto - Canada
Durban - South Africa	Harbin - China	Frankfurt - Germany	Porto - Portugal	Vancouver - Canada
Johannesburg - South Africa	Shanghai - China	Hamburg - Germany	Birmingham - United Kingdom	Boston - USA
Pretoria - South Africa	Shenyang - China	Munich - Germany	Glasgow - United Kingdom	Chicago - USA
Latin America	Shenzhen - China	Stuttgart - Germany	Leeds - United Kingdom	Dallas - USA
Buenos Aires - Argentina	Suzhou - China	Linz - Austria	Liverpool - United Kingdom	Phoenix - USA
Cordoba - Argentina	Tianjin - China	Vienna - Austria	London - United Kingdom	Philadelphia - USA
Rosario - Argentina	Wuhan - China	Brussels - Belgium	Manchester - United Kingdom	Houston - USA
La Paz - Bolivia	Hong Kong - China	Copenhagen - Denmark	Nottingham - United Kingdom	Los Angeles - USA
Belo Horizonte - Brazil	Busan - South Korea	A Coruña - Spain	Stockholm - Sweden	Miami - USA
Brasilia - Brazil	Daegu - South Korea	Barcelona - Spain	Gothenburg - Sweden	New York - USA
Curitiba - Brazil	Daejeon - South Korea	Bilbao - Spain	Basel - Switzerland	San Francisco - USA
Fortaleza - Brazil	Seoul - South Korea	Madrid - Spain	Geneva - Switzerland	Washington - USA
Porto Alegre - Brazil	Manila - Philippines	Malaga - Spain	Zurich - Switerland	**Oceania**
Recife - Brazil	Bangalore - India	Sevilla - Spain	**Eastern Europe**	Melbourne - Australia
Rio de Janeiro - Brazil	Mumbai - India	Valencia - Spain	Sarajevo - Bosnia-Herzegovina	Sydney - Australia
Salvador - Brazil	Calcutta - India	Helsinki - Finland	Sofia - Bulgaria	Auckland - New Zealand
São Paulo - Brazil	Delhi - India	Lille - France	Prague - Czech Republic	**Middle East**
Santiago - Chile	Jakarta - Indonesia	Lyon - France	Budapest - Hungary	Haifa - Israel
Bogota - Colombia	Osaka - Japan	Marseille - France	Riga - Latvia	Jerusalem - Israel
Cali - Colombia	Tokyo - Japan	Nice - France	Wroclaw - Poland	Tel Aviv - Israel
Medellin - Colombia	Kuala Lumpur - Malaysia	Paris - France	Warsaw - Poland	Doha - Qatar
Quito - Ecuador	Moscow - Russia	Athens - Greece	Ljubljana - Slovenia	Riyadh - Saudi Arabia
Santo Domingo - Dominican Republic	St. Petersburg - Russia	Dublin - Ireland	Ankara - Turkey	Jeddah - Saudi Arabia
Guadalajara - Mexico	Singapore - Singapore	Florence - Italy	Bursa - Turkey	Abu Dhabi - United Arab Emirates
Mexico, D.F. - Mexico	Kaohsiung - Taiwan	Milan - Italy	Istanbul - Turkey	Dubai - United Arab Emirates
Monterrey - Mexico	Taichung - Taiwan	Naples - Italy		
Lima - Peru	Tainan - Taiwan	Rome - Italy		
Montevideo - Uruguay	Taipei - Taiwan	Turin - Italy		
Caracas - Venezuela	Bangkok - Thailand	Oslo - Noruega		

CITIES IN MOTION. RANKING

The **CIMI**, which is the indicator that is the subject of this report, is a synthetic indicator and, as such, is a function of the available partial indicators.

The model on which the process for creating the synthetic indicator is based is a weighted aggregation of partial indicators that represent each of the 10 dimensions which make up the theoretical **CIMI** model. The dimensions selected to describe the reality of the cities in terms of their sustainability and the standard of living of their inhabitants, in the present and in the future, are as follows: Governance, Urban Planning, Public Management, Technology, The Environment, International Outreach, Social Cohesion, Mobility and Transportation, Human Capital, and The Economy.

The partial indicators which represent each dimension can also be categorized as synthetic indicators, which are defined as "weighted aggregations of each of the selected indicators that represent different factors of each dimension."

For the calculation of the **CIMI**, the DP2 technique was used because it is the most used worldwide and the most convenient, given the type of indicator to calculate and available data. Its methodology is based on distances – that is, the difference between a given indicator value and another value taken as a reference or objective. Also, this technique attempts to correct the dependency between the partial indicators that artificially increase the sensitivity of the indicator to variations in certain partial value. The correction consists of applying the same factor for each partial indicator, assuming a linear dependence function[2].

Given the partial indicators, factors are derived from the complement of the coefficient of determination (R2) of each indicator as compared to the rest of the partial indicators. The order in which indicators for each dimension were included, as well as their relative weight in the **CIMI** are the following: Economy: 1; Human Capital: 0.4887; International Outreach: 0.7327; Mobility and Transport: 0.6308; Environment: 0.7442; Technology: 0.4772; Urbanism: 0.4187; Public Management: 0.4955; Governance: 0.6925 and Social Cohesion: 0.7388.

While the order in which each synthetic index of each dimension is incorporated influences the value of the **CIMI**, sensitivity studies conducted conclude that there are no significant variations in it. For more information on the methodology applied, you can see the supplementary document, "Methodology and Modeling", which was published last year.

Table 3 shows the CIM ranking of cities, with the index value and a cluster of cities according to their performance, measured by the value of the synthetic indicator. Cities with a "High" (A) performance were considered those with an index greater than 90; "Relatively high" (RA) performance, between 60 and 90; "Medium" (M), between 45 and 60 and "Low" (B) below 45.

2 As linear estimates, variables that have a normal distribution are required, so in some variables log transformation was applied to obtain normality. "Outlier" techniques were also applied to avoid bias and overestimation of coefficients.

TABLE 3 . CITIES RANKING

Ranking	City	Performance	ICIM
1	London-UK	A	100.00
2	New York-USA	A	92.24
3	Seoul-South Korea	RA	88.47
4	Paris-France	RA	87.69
5	Amsterdam-Netherlands	RA	85.05
6	Vienna-Austria	RA	84.78
7	Tokyo-Japan	RA	84.15
8	Geneva-Switzerland	RA	83.85
9	Singapore-Asia Pacific	RA	83.37
10	Munich-Germany	RA	83.21
11	Boston-USA	RA	81.67
12	Zurich-Switzerland	RA	81.43
13	Helsinki-Finland	RA	80.99
14	Oslo-Norway	RA	80.64
15	Copenhagen-Denmark	RA	80.48
16	Melbourne-Australia	RA	80.44
17	Hong Kong, China-Asia Pacific	RA	80.40
18	Chicago-USA	RA	80.24
19	Washington-USA	RA	79.24
20	Liverpool-UK	RA	79.23
21	San Francisco-USA	RA	79.03
22	Dublin-Ireland	RA	78.92
23	Birmingham-UK	RA	78.36
24	Stockholm-Sweden	RA	78.12
25	Berlin-Germany	RA	78.06
26	Glasgow-UK	RA	78.02
27	Sydney-Australia	RA	77.69
28	Frankfurt-Germany	RA	75.54
29	Basel-Switzerland	RA	75.50
30	Dubai-United Arab Emirates	RA	75.30
31	Manchester-UK	RA	74.85
32	Tel Aviv-Israel	RA	74.65
33	Brussels-Belgium	RA	74.59
34	Barcelona-Spain	RA	73.74
35	Madrid-Spain	RA	73.73
36	Toronto-Canada	RA	73.36
37	Hamburg-Germany	RA	73.24
38	Auckland-New Zealand	RA	73.24
39	Lyon-France	RA	73.23
40	Nottingham-UK	RA	73.06
41	Dallas-United States	RA	72.78
42	Los Angeles-USA	RA	72.29
43	Houston-USA	RA	72.28
44	Linz-Austria	RA	72.07
45	Leeds-UK	RA	71.72
46	Osaka-Japan	RA	71.69
47	Eindhoven-Netherlands	RA	71.32
48	Stuttgart-Germany	RA	70.99
49	Ottawa-Canada	RA	70.88
50	Lille-France	RA	70.39
51	Cologne-Germany	RA	69.39
52	Montreal-Canada	RA	69.27
53	Vancouver-Canada	RA	68.72
54	Gothenburg-Sweden	RA	68.53
55	Abu Dhabi-Arab Emirates	RA	68.41
56	Prague-Czech Republic	RA	68.24
57	Haifa-Israel	RA	68.20
58	Jerusalem-Israel	RA	67.79
59	Philadelphia-USA	RA	67.67
60	Marseille-France	RA	67.62
61	Duisburg-Germany	RA	67.24

Ranking	City	Performance	ICIM
62	Lisbon-Portugal	RA	66.27
63	Florence-Italy	RA	65.85
64	Phoenix-USA	RA	65.13
65	Budapest-Hungary	RA	63.86
66	Nice-France	RA	63.77
67	Busan South Korea	RA	63.61
68	Rome-Italy	RA	63.15
69	Daegu South-Korea	RA	62.44
70	Miami-USA	RA	62.14
71	Milan-Italy	RA	62.04
72	Warsaw-Poland	RA	61.95
73	Valencia-Spain	RA	61.76
74	Taipei-Taiwan	RA	61.75
75	A Coruña-Spain	RA	61.75
76	Bilbao-Spain	RA	61.08
77	Riga-Latvia	RA	60.67
78	Turin-Italy	RA	60.57
79	Seville-Spain	RA	60.56
80	Malaga-Spain	RA	60.49
81	Porto-Portugal	RA	60.16
82	Istanbul-Turkey	M	60.00
83	Shanghai-China	M	59.80
84	Bangkok-Thailand	M	59.55
85	Sofia-Bulgaria	M	59.55
86	Santiago-Chile	M	59.45
87	Ljubljana-Slovenia	M	59.13
88	Kuala Lumpur-Malaysia	M	58.84
89	Daejeon South-Korea	M	58.18
90	Moscow-Russia	M	57.69
91	Buenos Aires-Argentina	M	57.51
92	Athens-Greece	M	57.51
93	Monterrey-Mexico	M	57.16
94	Wroclaw-Poland	M	56.47
95	Mexico, DF-Mexico	M	55.89
96	Naples-Italy	M	55.11
97	Bogotá-Colombia	M	55.03
98	Bursa-Turkey	M	54.67
99	Beijing-China	M	54.55
100	Doha-Qatar	M	54.16
101	Taichung-Taiwan	M	52.91
102	São Paulo-Brasil	M	52.50
103	Lima-Peru	M	52.13
104	Guangzhou-China	M	51.92
105	Riyadh-Saudi Arabia	M	51.91
106	Cordoba-Argentina	M	51.88
107	Medellin-Colombia	M	51.73
108	Ankara-Turkey	M	51.57
109	Montevideo-Uruguay	M	51.12
110	Cali-Colombia	M	50.67
111	Curitiba-Brazil	M	50.39
112	Brasilia-Brazil	M	50.39
113	Guadalajara-Mexico	M	50.19
114	Rosario-Argentina	M	49.78
115	Saint-Petersburg-Russia	M	49.35
116	Jeddah-Saudi Arabia	M	49.29
117	Cape Town-South Africa	M	49.11
118	Shenzhen-China	M	48.55
119	Kaohsiung-Taiwan	M	48.24
120	Sarajevo Bosnia and Herzegovina	M	48.09
121	Quito-Ecuador	M	47.66
122	Tainan-Taiwan	M	46.81

Ranking	City	Performance	ICIM
123	Jakarta-Indonesia	M	45.13
124	Durban-South Africa	B	44.96
125	Porto Alegre-Brasil	B	44.93
126	Fortaleza-Brazil	B	44.27
127	Manila-Philippines	B	44.24
128	Recife-Brazil	B	43.83
129	Pretoria-South Africa	B	43.23
130	Johannesburg-South Africa	B	43.12
131	Chongqing-China	B	43.12
132	Delhi-India	B	42.94
133	Rio de Janeiro-Brazil	B	42.64
134	Salvador-Brazil	B	41.45
135	Tianjin-China	B	41.18

Ranking	City	Performance	ICIM
136	Wuhan-China	B	40.78
137	Cairo-Egypt	B	40.77
138	Suzhou-China	B	40.71
139	Belo Horizonte-Brazil	B	39.14
140	Bangalore-India	B	38.54
141	Mumbai-India	B	38.21
142	Shenyang-China	B	38.17
143	Alexandria-Egypt	B	37.62
144	La Paz-Bolivia	B	36.93
145	Santo Domingo-Dominican Republic	B	36.58
146	Harbin-China	B	36.45
147	Caracas-Venezuela	B	35.83
148	Calcutta-India	B	35.35

In 2014, it can be seen that 54.7% of cities (81) reflect a performance of A or RA, according to this ranking, led by London and New York. There are 42 cities with a performance of M (28.4%), while B performances comprise 16.9% of the selected cities. No city appears with a MB grade. Among the top 25 cities, 15 are European; five are in the US; four are in Asia and one is in Oceania.

CITIES IN MOTION: RANKING BY DIMENSION

This section includes a ranking of cities using the dimensions mentioned in the index, including the overall position of the city and its ranking along each individual dimension. To offer a more intuitive and visual reading, the ranking uses dark green to represent the most highly ranked, dark red to denote the least favorably ranked, and yellow tones to indicate intermediary rankings.

An interesting case is that of New York (United States), which ranks second in the overall ranking thanks to its performance in the dimensions of Economy (first place), Technology (second place), Public Sector Management (third place) and Human Capital (fourth place), despite ranking 103rd in Social Cohesion and 111th in Environment.

Another noteworthy case is Dubai (United Arab Emirates), which, despite occupying third place worldwide in the Social Cohesion dimension, ranks 30th in the overall ranking due to its relatively low performance in Urban Planning, Human Capital and Environment.

The interpretation of Table 4 is very important in analyzing the results since it highlights the relative position of all of the cities along each one of the dimensions. The following section offers a more detailed description of ranking by dimension.

HUMAN CAPITAL

The city that occupies the first place in this dimension is London (United Kingdom). London stands out as the city with the largest number of universities and top-ranked business schools. Moreover, a large percentage of the city's population has secondary and higher education.

SOCIAL COHESION

Doha (Qatar) obtained the highest ranking in this dimension. It's the city with the lowest unemployment rate (less than 1%). In addition, it also has one of the lowest crime rates and murder rates per 100,000 inhabitants, along with other Middle Eastern cities like Abu Dhabi and Dubai.

ECONOMY

New York leads the ranking in this dimension. This city has relatively high rankings in all indicators, particularly in terms of GDP and the number of head offices of publicly traded companies.

PUBLIC SECTOR MANAGEMENT

In this case, London (United Kingdom) once again comes first place, earning with high marks for nearly every indicator, especially its per capita reserves.

GOVERNANCE

Birmingham (United Kingdom) ranks first in this dimension, standing out for the strength of its legal framework and web services at the local level.

ENVIRONMENT

The cities that rank highest in this dimension are Zurich and Geneva, Switzerland, and Helsinki, Finland. These cities have low levels of pollution and CO_2 emissions and are among the highest ranked in the Environmental Performance Indicator.

MOBILITY AND TRANSPORTATION

The city of Frankfurt (Germany) tops the ranking, with high marks for all of the indicators included in this dimension.

URBAN PLANNING

Oslo (Norway) occupies the first place in this dimension, coming in first place for nearly every indicator.

INTERNATIONAL OUTREACH

Paris (France) ranks first in this dimension, while London (United Kingdom) ranks second. This is because Paris is the second city with the most international tourists, occupying the leading position in the ranking for the number of pictures taken of the city and uploads to Panoramio. It is also the city that hosts the most international conferences and trade fairs. For its part, London is the city with the highest number of airline passengers, which is consistent with the fact that it is among the cities with the most airline route.

TECHNOLOGY

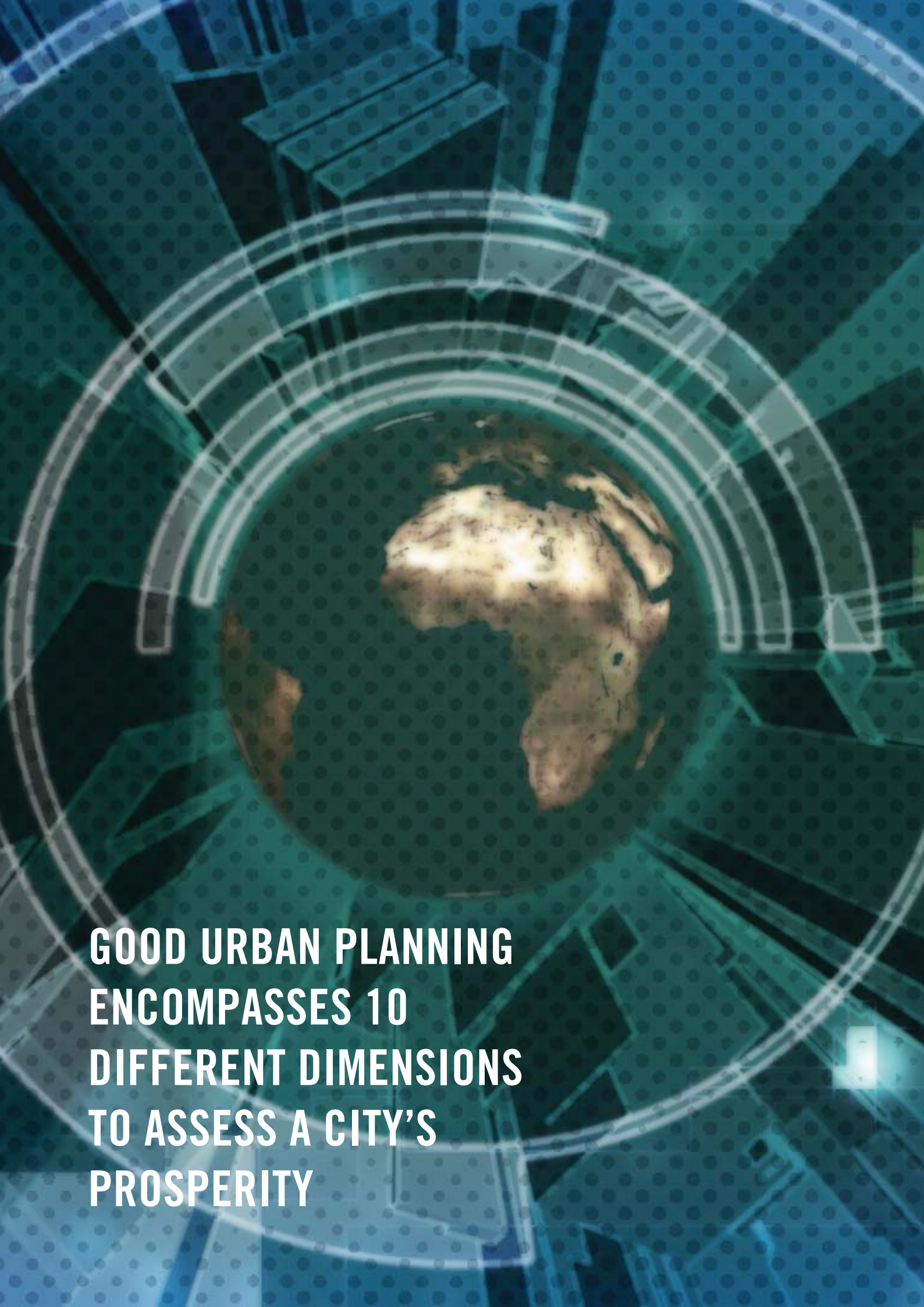
Hong Kong (China) tops this ranking. This city earns high marks for all of the indicators, especially the number of broadband users. Hong Kong is considered as the window of innovation and technology in the Chinese market and Asia Pacific region.

TABLE 4 . RANKING BY DIMENSIONS

City	Economy	Human Capital	Social Cohesion	Environment	Public Management	Governance	Urban Planning	International Outreach	Technology	Mobility and Transportation	Cities in Motion
London-UK	4	1	90	28	1	13	21	2	11	10	1
New York-USA	1	4	103	111	3	15	49	5	2	28	2
Seoul-South Korea	19	15	10	62	22	18	28	25	4	6	3
Paris-France	3	7	70	50	87	44	63	1	8	8	4
Amsterdam-Netherlands	30	14	43	26	41	28	3	9	14	13	5
Vienna-Austria	39	60	55	6	27	32	9	8	40	2	6
Tokyo-Japan	2	9	9	36	82	52	30	19	15	81	7
Geneva-Switzerland	11	42	33	2	2	30	7	23	38	44	8
Singapore-Asia Pacific	13	44	54	29	25	10	74	15	9	33	9
Munich-Germany	32	20	20	9	17	36	5	49	26	3	10
Boston-USA	15	2	42	96	15	8	67	76	10	26	11
Zurich-Switzerland	20	33	8	1	48	30	11	55	27	19	12
Helsinki-Finland	38	53	31	3	29	7	35	61	29	9	13
Oslo-Norway	14	39	21	7	18	53	1	32	44	32	14
Copenhagen-Denmark	25	80	58	20	72	12	8	29	32	4	15
Melbourne-Australia	21	35	27	24	47	11	27	63	18	35	16
Hong Kong, China-Asia Pacific	33	37	94	41	137	3	81	3	1	40	17
Chicago-USA	9	8	88	101	28	9	78	36	6	16	18
Washington-USA	8	3	60	109	4	8	55	48	7	136	19
Liverpool-UK	37	31	14	13	43	4	52	30	100	51	20
San Francisco-USA	6	6	61	105	6	15	62	40	5	61	21
Dublin-Ireland	22	58	104	11	8	16	20	17	61	29	22
Birmingham-UK	51	22	18	37	39	1	54	74	87	38	23
Stockholm-Sweden	24	57	51	5	35	22	13	50	36	15	24
Berlin-Germany	63	13	37	18	16	39	12	22	33	17	25
Glasgow-UK	53	11	29	43	42	4	51	54	53	41	26
Sydney-Australia	17	48	32	32	30	21	17	37	16	95	27
Frankfurt-Germany	36	16	66	14	33	64	33	70	56	1	28
Basel-Switzerland	85	24	11	4	10	30	2	24	114	59	29
Dubai-United Arab Emirates	91	107	3	82	7	27	94	11	54	24	30
Manchester-UK	62	25	26	58	32	13	70	91	28	36	31
Tel Aviv-Israel	57	67	22	56	5	26	4	39	102	87	32
Brussels-Belgium	28	29	64	65	50	45	25	18	43	11	33
Barcelona-Spain	73	40	129	49	98	24	24	6	49	20	34
Madrid-Spain	58	43	124	44	52	33	42	13	55	7	35
Toronto-Canada	35	36	36	113	44	5	40	56	30	63	36
Hamburg-Germany	41	26	77	21	36	29	37	102	52	5	37
Auckland-New Zealand	46	94	48	8	75	6	22	101	24	43	38
Lyon-France	47	30	46	38	71	31	31	62	37	27	39
Nottingham-UK	37	45	28	35	49	13	60	123	66	66	40
Dallas-United States	12	18	68	120	20	8	112	64	23	46	41
Los Angeles-USA	5	5	78	130	13	23	80	43	19	103	42
Houston-USA	7	21	47	127	56	8	41	72	20	123	43
Linz-Austria	29	69	41	17	23	47	10	27	111	100	44
Leeds-UK	65	32	12	47	45	13	91	92	88	69	45
Osaka-Japan	27	65	13	52	62	20	106	93	58	60	46
Eindhoven-Netherlands	66	68	5	25	53	37	6	108	31	119	47
Stuttgart-Germany	75	87	17	22	57	19	57	118	70	23	48
Ottawa-Canada	97	95	4	91	11	2	48	115	21	122	49

City	Economy	Human Capital	Social Cohesion	Environment	Public Management	Governance	Urban Planning	International Outreach	Technology	Mobility and Transportation	Cities in Motion
Lille-France	49	51	44	57	76	31	64	68	81	22	50
Cologne-Germany	43	72	15	40	67	80	32	85	39	18	51
Montreal-Canada	54	62	40	104	26	17	19	65	25	111	52
Vancouver-Canada	52	59	35	92	61	17	23	67	41	89	53
Gothenburg-Sweden	45	56	50	10	63	51	47	52	101	25	54
Abu Dhabi-Arab Emirates	10	130	6	86	9	61	121	109	46	47	55
Prague-Czech Republic	102	41	49	12	65	79	56	42	106	14	56
Haifa-Israel	31	66	24	59	21	75	61	53	72	105	57
Jerusalem-Israel	64	109	25	69	70	14	117	71	76	85	58
Philadelphia-USA	16	10	101	123	64	15	75	110	13	84	59
Marseille-France	60	52	63	54	92	31	26	79	75	39	60
Duisburg-Germany	81	49	16	34	12	64	53	98	74	94	61
Lisbon-Portugal	71	92	117	31	38	50	73	31	50	48	62
Florence-Italy	50	50	109	19	123	71	16	35	68	86	63
Phoenix-USA	26	17	65	122	31	15	103	139	48	82	64
Budapest-Hungary	95	54	106	48	85	65	15	26	85	52	65
Nice-France	34	46	45	42	74	96	39	21	136	64	66
Busan South Korea	78	93	76	71	40	43	66	140	42	45	67
Rome-Italy	76	47	134	64	91	104	38	7	47	76	68
Daegu South-Korea	79	108	53	72	37	25	45	147	59	65	69
Miami-USA	23	19	99	121	46	38	14	41	77	133	70
Milan-Italy	55	28	120	51	93	93	46	34	83	71	71
Warsaw-Poland	86	100	92	55	19	62	34	66	103	49	72
Valencia-Spain	88	71	79	27	104	67	105	77	62	31	73
Taipei-Taiwan	93	64	23	134	127	49	84	38	3	106	74
A Coruña-Spain	61	55	98	39	107	40	92	129	91	90	75
Bilbao-Spain	40	81	122	15	100	54	101	114	112	37	76
Riga-Latvia	83	38	123	46	34	72	59	57	109	102	77
Turin-Italy	70	70	97	80	108	56	58	82	93	54	78
Seville-Spain	89	76	111	30	105	54	29	78	80	101	79
Malaga-Spain	88	63	75	23	106	85	109	47	84	55	80
Porto-Portugal	82	98	85	16	58	102	107	73	104	21	81
Istanbul-Turkey	72	140	19	93	81	109	82	12	51	115	82
Shanghai-China	92	12	95	136	147	59	95	10	12	34	83
Bangkok-Thailand	80	129	34	108	140	106	88	14	22	58	84
Sofia-Bulgaria	108	61	112	63	51	88	44	81	90	50	85
Santiago-Chile	44	99	83	68	24	63	71	87	121	109	86
Ljubljana-Slovenia	98	85	71	33	78	68	77	137	89	97	87
Kuala Lumpur-Malaysia	84	128	56	85	141	46	125	33	63	70	88
Daejeon South-Korea	79	89	53	70	69	73	18	148	34	80	89
Moscow-Russia	48	27	139	114	54	69	128	51	67	62	90
Buenos Aires-Argentina	122	112	69	89	132	42	50	45	79	124	91
Athens-Greece	87	84	140	60	84	81	36	60	71	56	92
Monterrey-Mexico	56	96	39	87	125	84	96	128	128	108	93
Wroclaw-Poland	118	138	87	53	118	62	100	126	17	83	94
Mexico, DF-Mexico	59	142	62	118	124	55	116	83	92	104	95
Naples-Italy	96	82	116	45	112	97	79	90	64	116	96
Bogota-Colombia	68	115	108	81	121	78	89	84	110	98	97
Bursa-Turkey	101	113	7	66	86	109	124	96	125	75	98
Beijing-China	90	23	105	148	148	98	110	4	45	12	99

City	Economy	Human Capital	Social Cohesion	Environment	Public Management	Governance	Urban Planning	International Outreach	Technology	Mobility and Transportation	Cities in Motion
Doha-Qatar	18	78	1	119	99	113	141	75	148	74	100
Taichung-Taiwan	100	74	38	135	119	57	120	111	35	125	101
São Paulo-Brazil	121	102	133	95	96	76	85	46	69	92	102
Lima-Peru	77	114	93	125	83	58	113	94	134	117	103
Guangzhou-China	105	79	100	137	145	59	114	16	65	30	104
Riyadh-Saudi Arabia	42	147	2	84	120	92	142	141	113	146	105
Cordoba-Argentina	123	116	86	73	135	83	69	97	60	114	106
Medellin-Colombia	69	123	107	78	131	78	132	107	95	107	107
Ankara-Turkey	94	126	30	94	80	101	122	130	116	120	108
Montevideo-Uruguay	109	119	96	61	60	77	108	95	108	134	109
Cali-Colombia	67	122	113	75	122	90	130	121	123	112	110
Curitiba-Brazil	135	90	128	76	101	70	65	88	98	99	111
Brasilia-Brazil	127	73	73	67	94	99	111	119	138	96	112
Guadalajara-Mexico	74	104	52	90	133	107	136	120	137	78	113
Rosario-Argentina	123	101	119	74	134	83	43	124	99	118	114
Saint-Petersburg-Russia	117	34	132	115	55	94	127	86	117	128	115
Jeddah-Saudi Arabia	99	118	59	79	117	92	131	144	140	57	116
Cape Town-South Africa	110	121	142	88	68	35	83	113	124	137	117
Shenzhen-China	106	77	74	140	144	98	97	20	82	42	118
Kaohsiung-Taiwan	111	106	57	138	130	89	99	89	57	68	119
Sarajevo-Bosnia and Herzegovina	129	75	137	103	77	100	76	112	86	121	120
Quito-Ecuador	104	111	127	77	103	115	129	104	131	93	121
Tainan-Taiwan	113	97	57	139	97	105	102	127	78	110	122
Jakarta-Indonesia	112	135	115	129	66	91	143	69	118	129	123
Durban-South Africa	114	136	135	100	79	34	140	143	139	142	124
Porto Alegre-Brazil	134	91	130	83	110	95	68	103	146	88	125
Fortaleza-Brazil	139	120	114	110	116	60	93	131	127	140	126
Manila-Philippines	120	146	84	124	89	112	118	100	107	126	127
Recife-Brazil	139	110	81	107	111	95	87	132	132	130	128
Pretoria-South Africa	116	117	131	99	14	103	119	146	144	135	129
Johannesburg-South Africa	103	124	144	116	73	48	134	145	119	79	130
Chongqing-China	125	125	82	143	142	59	135	28	130	77	131
Delhi-India	133	141	72	144	113	41	148	80	96	73	132
Rio de Janeiro-Brazil	131	86	143	97	109	99	72	58	94	131	133
Salvador-Brazil	137	105	138	102	115	87	86	122	133	91	134
Tianjin-China	107	88	80	142	146	98	98	117	115	53	135
Wuhan-China	119	83	91	145	143	98	139	44	105	113	136
Cairo-Egypt	128	137	102	128	59	111	126	136	126	145	137
Suzhou-China	124	127	89	141	138	74	137	59	97	139	138
Belo Horizonte-Brazil	140	103	118	106	128	108	104	116	120	143	139
Bangalore-India	136	139	67	131	114	82	145	125	122	138	140
Mumbai-India	132	148	125	132	102	66	146	106	73	147	141
Shenyang-China	124	132	82	147	139	86	90	99	129	127	142
Alexandria-Egypt	130	134	121	117	90	110	123	133	147	144	143
La Paz-Bolivia	115	131	110	112	136	114	144	135	141	141	144
Santo Domingo-Dominican Republic	126	144	136	126	88	116	115	138	145	67	145
Harbin-China	124	133	82	146	129	98	138	105	135	132	146
Caracas-Venezuela	141	143	141	98	95	117	133	134	143	72	147
Calcutta-India	138	145	126	133	126	82	147	142	142	148	148



GOOD URBAN PLANNING ENCOMPASSES 10 DIFFERENT DIMENSIONS TO ASSESS A CITY'S PROSPERITY

REGIONAL RANKING

TOP 5 EUROPE

CITY	REGIONAL POSITION	GLOBAL POSITION 2012	GLOBAL POSITION 2013	GLOBAL POSITION 2014
London-United Kingdon	1	1	1	1
Paris-France	2	4	4	4
Amsterdam-The Netherlands	3	6	7	5
Vienna-Austria	4	9	6	6
Geneva-Switzerland	5	10	9	8

In Europe, the city that tops this ranking is London, which also ranks first in the global ranking, a position that it has maintained for the past three years. Within Europe, London is followed by Paris, Amsterdam and Vienna, which had the biggest jump in the global ranking, ascending three positions. The table concludes with Geneva.

TOP 5 ASIA PACIFIC

CITY	REGIONAL POSITION	GLOBAL POSITION 2012	GLOBAL POSITION 2013	GLOBAL POSITION 2014
Seoul-South Korea	1	2	3	3
Tokyo-Japan	2	5	8	7
Singapore-Asia-Pacific	3	20	18	9
Melbourne-Australia	4	13	12	16
Hong Kong-China	5	32	23	17

Seoul tops the ranking in the Asia Pacific region, placing third globally and falling back one position since 2012. Tokyo is in second place within the region, followed by Singapore, Melbourne and Hong Kong. It should be noted that both Singapore and Hong Kong are the cities that have progressed the most on our index, moving up 11 and 15 positions, respectively.

TOP 5 LATIN AMERICA

CITY	REGIONAL POSITION	GLOBAL POSITION 2012	GLOBAL POSITION 2013	GLOBAL POSITION 2014
Santiago-Chile	1	89	86	86
Buenos Aires-Argentina	2	92	93	91
Mexico, D.F.-Mexico	3	94	105	95
Bogota-Colombia	4	96	98	97
São Paulo-Brazil	5	101	99	102

Santiago, Chile leads the ranking among the best Latin American cities, jumping three positions over the last three years in the global ranking. Buenos Aires is in second place, followed by Mexico City. The table concludes with Bogota and São Paulo. It is worth noting that the progression of the major cities in this geographic region was much more modest than in other emerging markets.

TOP 5 MIDDLE EAST

CITY	REGIONAL POSITION	GLOBAL POSITION 2012	GLOBAL POSITION 2013	GLOBAL POSITION 2014
Dubai-United Arab Emirates	1	29	28	30
Tel Aviv-Israel	2	36	35	32
Abu Dhabi-United Arab Emirates	3	53	57	55
Haifa-Israel	4	54	55	57
Jerusalem-Israel	5	66	64	58

The Middle Eastern ranking is led by the city of Dubai, which is also included in the Top 30 cities in the overall ranking. Tel Aviv tails Dubai by two positions. The cities of Abu Dhabi, Haifa and Jerusalem round out the list of the top five cities in the region. It should be noted that unlike other regions, in which the top five cities are distributed in different countries, the top five Middle Eastern cities are located in only two countries: United Arab Emirates and Israel.

TOP 5 NORTH AMERICA

CITY	REGIONAL POSITION	GLOBAL POSITION 2012	GLOBAL POSITION 2013	GLOBAL POSITION 2014
New York-USA	1	3	2	2
Boston-USA	2	24	16	11
Chicago-USA	3	21	13	18
Washington-USA	4	16	26	19
San Francisco-USA	5	30	20	21

In North America, the ranking is led by New York, which ranks second in the overall classification. Boston comes in second place on a regional level and 11th globally. Chicago, Washington D.C. and San Francisco complete the list of the five best North American cities. It is worth mentioning that no Canadian cities are included in the top five cities in this region (Toronto is the highest ranked city in the country in the 36th position).

A FEW NOTABLE CASES

This section includes a description of some interesting cases worth highlighting. The study's annex section includes a graphic analysis of the 148 cities included in Cities in Motion Index.

AMSTERDAM

Amsterdam is the capital of the Netherlands. It is currently the country's largest city and an internationally renowned financial and cultural hub. This city is listed fifth in the overall ranking and third within its region. It has solid performance in all of the dimensions, particularly Urban Planning and International Outreach.

BARCELONA

Listed 34th overall, Barcelona is the highest ranking Spanish city. It outperforms Madrid in Human Capital, Urban Planning, International Outreach and Technology.

BOSTON

One of the oldest cities in the United States, Boston is the capital and most populated city of the state of Massachusetts. It's considered the economic and cultural center of the region. The city ranks 11th overall and second in the region, earning high marks in Human Capital and Governance.

BUENOS AIRES

Buenos Aires is the capital and most populous city in Argentina. Furthermore, it's the most visited city in South America and has the second-highest number of skyscrapers in the region. It ranks 91st overall and second in the region.

DUBAI

Located in the United Arab Emirates, it is among the cities with the highest growth rates over the past decade. It holds the 30th place in the overall ranking and places first within its region. Especially noteworthy are its marks in Social Cohesion, Public Sector Management and International Outreach.

HONG KONG

A Special Administrative Region of the People's Republic of China, Hong Kong is formed by a peninsula and several islands located on the southern coast of the South China Sea. It is currently one of the most influential cities in southeastern Asia. It ranks 17th overall and fifth in the region, ranking first in Technology and third in Governance.

LONDON

London is the capital of England and the United Kingdom, and the largest city and urban area of Great Britain. It's a fundamental hub for the arts, business, education, entertainment, fashion, finance, media, research, tourism and transport. For these reasons, it ranks first in the overall ranking, with high marks in nearly every dimension. It stands out in the dimensions of Human Capital, Public Sector Management and International Projection, and also occupies the top positions in Economy, Technology, and Mobility and Transport. Nonetheless, it shows its worst side in Social Cohesion, where it's positioned 90th in the ranking.

MADRID

Madrid is the second Spanish city included in the ranking, right behind Barcelona. It stands out in the dimensions of Mobility and Transport, where it ranks seventh, and International Outreach, where it occupies the 13th position.

NEW YORK

New York is among the three largest and most densely populated urban areas in the world, and is second largest metropolitan area in North America after Mexico City. New York ranks second in the overall ranking and first in the region. It is the most important global economic center in the world, and, along with Tokyo, one of the world's most important economic hubs.

PARIS

The French capital is the world's most popular tourist destination, drawing more than 42 million international tourists per year. Paris has one of Europe's most important business districts, which is home to the headquarters of nearly half of France's leading companies and 20 of the world's largest 100 firms. It ranks fourth in the overall ranking and first in terms of International Projection. The city also excels in Human Capital, Technology, and Mobility and Transport.

SANTIAGO, CHILE

The Chilean capital ranks 86th overall and tops the lists among Latin American major cities, surpassing Buenos Aires, São Paulo and Mexico City. In addition, the city stands out for its Public Sector Management, which is listed 24th in the ranking.

SEOUL

The capital South Korea is one of the largest metropolitan areas of the world. The city is home to some of the world's largest companies, like Samsung, LG Group, Hyundai and Kia Motors, among others. It's ranked third overall and first in the region. Seoul stands out in Technology, Social Cohesion, and Mobility and Transport, although it ranks among the Top 25 cities in nearly every dimension.

SYDNEY

Sydney is Australia's largest and most populous city and the country's main tourist destination. It ranks 27th in the general ranking and earns high marks in Economy, Technology and Urban Planning.

SINGAPORE

Singapore is a city-state located in Southeast Asia. Founded as a British trade colony in 1819, since its independence it has become of the world's most prosperous cities and has the most active port in the world. It occupies the ninth place in the overall ranking and third in the region. It stands out in Technology, Governance, Economy and International Outreach.

TEL AVIV

Tel Aviv is the second-largest city in Israel. It's considered the country's cultural capital due to cosmopolitan and modern character. Although it places 32nd in the ranking, the city ranks fourth in Urban Planning and fifth in Public Sector Management. Moreover, it ranks second in its region.

TOKYO

The capital of Japan, Tokyo is the world's most populated metropolis and among the cities with the highest labor productivity rates. It's in seventh place in the overall ranking and second in its region. Moreover, it ranks second in the dimension of Economy, and 9th in Human Capital and Social Cohesion.

VIENNA

Vienna is the capital of Austria, as well as the country's most populous city. Given its rich cultural scene and high standard of living, it's known as the country's most important cultural and political center. It ranks sixth overall and is included among the top 5 European cities. It stands out for Mobility and Transport, where it ranks second, as well as Environment, Urban Planning and International Outreach, where it ranks among the top 10.

ZURICH

The capital of Switzerland, Zurich is the financial engine and cultural epicenter of the country. It was chosen as the city with highest standard of living in the world in 2006 and 2008. Zurich occupies 12th place in the ranking and first in Environment. It also stands out in the dimensions of Social Cohesion and Urban Planning.

EVOLUTION OF THE CITIES IN MOTION INDEX

The evolution of a city is vital for understanding where its development goals lie. That is why this section presents the evolution the CIMI over the last three years for the first 50 cities in the ranking of 2014.

The results show certain stability at the top. The most notable changes include Seoul's drop from the number 2 position, which it held in 2012 and which New York occupied in 2013. Tokyo, which was ranked 5th in 2012, fell 2 places during the period. Vienna reflects the opposite case, rising three spots between the years 2012-2014.

Strides in development taken by Singapore and Hong Kong are noteworthy. Singapore showed major advances during the period of 2012-2014, moving up from 18th place in 2013 to 9th in 2014. Hong Kong rose 15 positions between 2012-2014, from number 32 to 17. This breakthrough for the city is largely due to improvements in the dimensions of Human Capital, Environment, Mobility and Transport and Technology.

In the United States, positive developments in cities took place during 2012-2014, with the exception of Los Angeles. A highlight is the evolution of Boston, which rose from 24th to 11th place. This development is chiefly due to improvements in the dimensions of Governance, Social Cohesion and Public Management. Los Angeles experienced a downward trend during this period, particularly due to poorer performance in the dimension of Mobility and Transport, as well as Economy.

Table 5 features the evolution of the index, over the last three years, for the first 50 cities in the 2014 ranking.

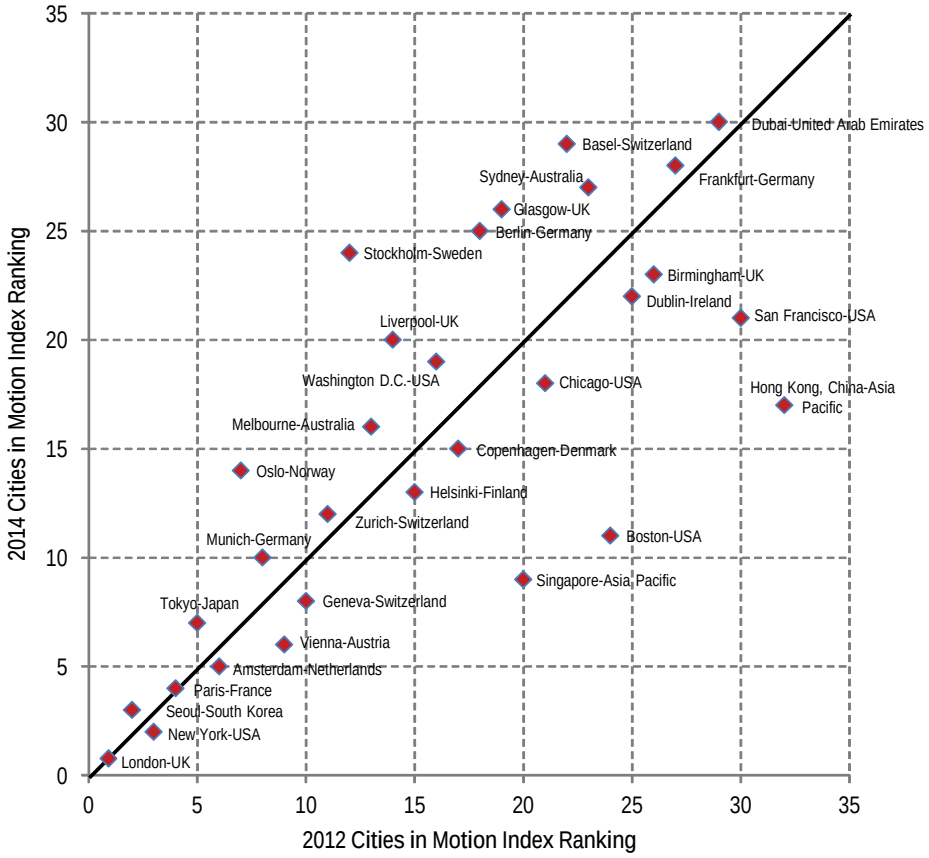
TABL 5 . EVOLUTION OF THE INDEX FOR THE FIRST 50 CITIES IN THE 2014 RANKING (THREE LAST YEARS)

City	2012	2013	2014	2012-2013	2013-2014
London-UK	1	1	1	0	0
New York-USA	3	2	2	1	0
Seoul-South Korea	2	3	3	-1	0
Paris-France	4	4	4	0	0
Amsterdam-Netherlands	6	7	5	-1	2
Vienna-Austria	9	6	6	3	0
Tokyo-Japan	5	8	7	-3	1
Geneva-Switzerland	10	9	8	1	1
Singapore-Asia Pacific	20	18	9	2	9
Munich-Germany	8	5	10	3	-5
Boston-USA	24	16	11	8	5
Zurich-Switzerland	11	11	12	0	-1
Helsinki-Finland	15	19	13	-4	6
Oslo-Norway	7	10	14	-3	-4
Copenhagen-Denmark	17	14	15	3	-1
Melbourne-Australia	13	12	16	1	-4
Hong Kong, China-Asia Pacific	32	23	17	9	6
Chicago-USA	21	13	18	8	-5
Washington D.C.-USA	16	26	19	-10	7
Liverpool-UK	14	17	20	-3	-3
San Francisco-USA	30	20	21	10	-1
Dublin-Ireland	25	22	22	3	0
Birmingham-UK	26	29	23	-3	6
Stockholm-Sweden	12	15	24	-3	-9
Berlin-Germany	18	24	25	-6	-1
Glasgow-UK	19	25	26	-6	-1
Sydney-Australia	23	21	27	2	-6
Frankfurt-Germany	27	30	28	-3	2
Basel-Switzerland	22	27	29	-5	-2
Dubai-United Arab Emirates	29	28	30	1	-2
Manchester-UK	34	36	31	-2	5
Tel Aviv-Israel	36	35	32	1	3
Brussels-Belgium	28	31	33	-3	-2
Barcelona-Spain	47	46	34	1	12
Madrid-Spain	31	34	35	-3	-1
Toronto-Canada	39	32	36	7	-4
Hamburg-Germany	33	33	37	0	-4
Auckland-New Zealand	46	42	38	4	4
Lyon-France	37	38	39	-1	-1
Nottingham-UK	38	37	40	1	-3
Dallas-USA	45	39	41	6	-2
Los Angeles-USA	35	44	42	-9	2
Houston-USA	42	41	43	1	-2
Linz-Austria	41	43	44	-2	-1
Leeds-UK	40	40	45	0	-5
Osaka-Japan	44	47	46	-3	1
Eindhoven-Netherlands	48	49	47	-1	2
Stuttgart-Germany	43	45	48	-2	-3
Ottawa-Canada	55	48	49	7	-1
Lille-France	56	56	50	0	6
Cologne-Germany	49	50	51	-1	-1

Graphic 1 shows the positions of the cities, in 2012 and in 2014, for the first 30 cities in the ranking.

Those that experienced positive development are below the 45-degree angle that forms the diagonal line; meanwhile, cities whose evolution was not positive are above that line. For example, Basel had a negative trend since in 2012 it ranked 22th in the rankings, and in 2014, dropped to 29th. In contrast, Hong Kong had a positive evolution, going from 32nd to 17th in 2014.

GRAPHIC 1



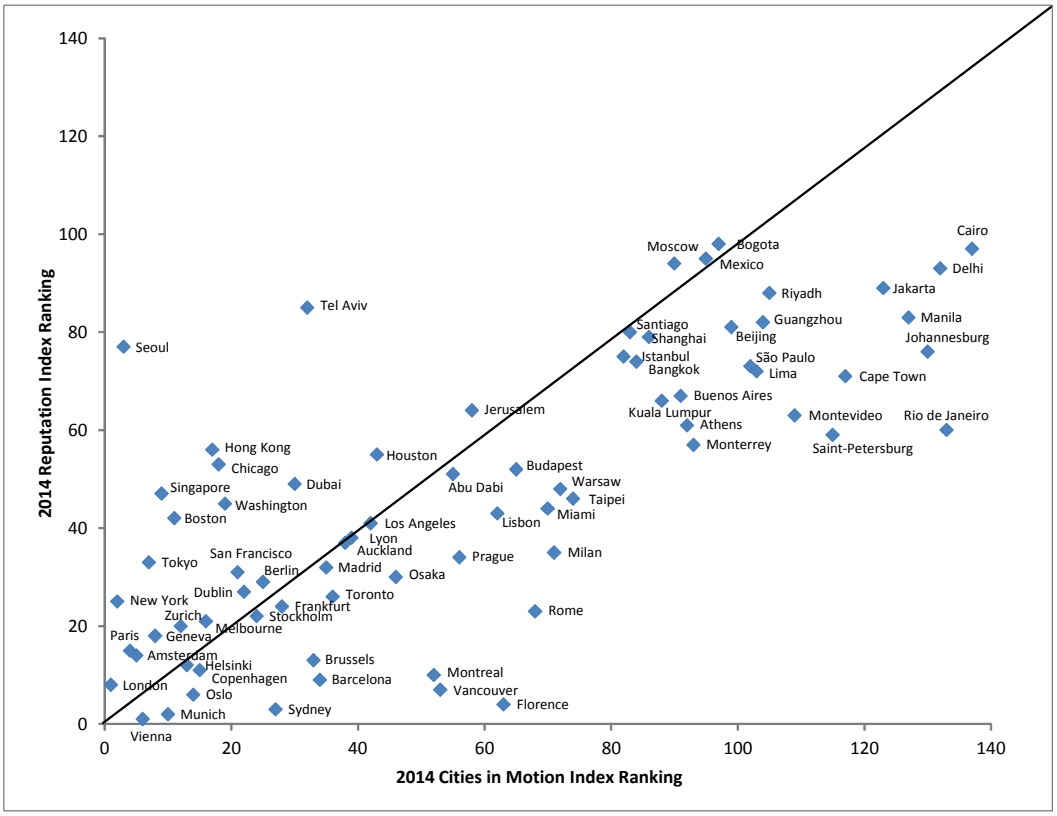
CITIES IN MOTION VS. REPUTATION INDEX

In this section, we perform a comparative study of the CIMI with the Reputation Index (IR), created by the Reputation Institute, which compiles the opinions of more than 22,000 people worldwide. The IR measures the extent to which people trust, admire, respect and have a good feeling about their city or have an emotional bond with it. This index has been calculated since 1999 for both cities and countries.

Graphic 2 presents a comparison between the rankings of the CIMI and the IR in 2014. All cities above the diagonal line enjoy an improved CIM ranking with respect to the IR position. The opposite happens with cities that are below the line. Particular cases are New York and Seoul, which rank 2nd and 3rd respectively in the CIMI and yet are placed 25th and 77th in the IR. The same applies to cities such as Singapore, Hong Kong and Tel Aviv (Israel). Conversely, cities such as Santo Domingo (Dominican Republic), or Florence and Milan (Italy) enjoy a reputation beyond what is indicated by the CIMI. Vienna (Austria) holds the 1st position in the IR and the 5th in the CIMI.

Cities close to the line are those with a reputation aligned with the criteria of the CIMI. Within this group are, for example, Budapest (Hungary), Toronto (Canada), Frankfurt (Germany) and Stockholm (Sweden).

GRAPHIC 2



CITIES IN MOTION: A DYNAMIC ANALYSIS

To evaluate trends in growth and the potential of cities, we created a chart that attempts to capture these aspects. The graph shows the current position of each city in the CIMI index (x-axis) and trend (y-axis). As a measure for calculating the trend, the numerical change in position in the CIMI ranking between 2012 and 2014 has been applied. This means that the positions that are on the top of the chart are those who have gained higher positions, while those that are in the lower part of the graphic have dropped in position. Cities located in the central part of the graph are those that have not undergone significant changes in placement during the years analyzed.

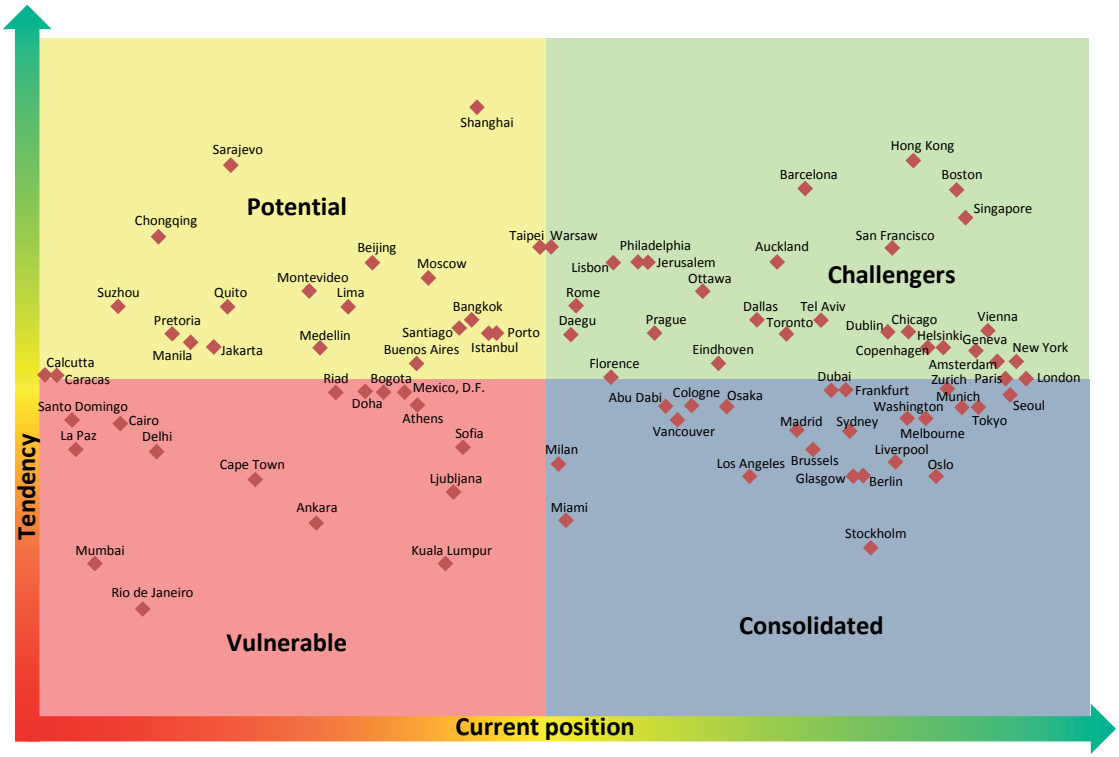
The graphic is divided into four quadrants of cities: consolidated, challenging, potential and vulnerable.

The first group, consolidated cities (lower right quadrant), are cities with a generally medium-high position, but which have maintained their position throughout the period or have dropped slightly. The group consists of cities in different geographies, such as: Washington, Los Angeles and Vancouver, which are located in North America; London, Zurich and Munich, all European cities; the Scandinivian capitals of Oslo and Stockholm; and Asian cities such as Tokyo and Seoul.

The challenging cities are the second group observable in the graph (upper right quadrant). This group consists of cities that have improved their positions in the index at a brisk pace and are already in the high zone. Examples are the two Asian cities of Hong Kong (the most prominent city for its rapid growth in this group) and Singapore, as well as Barcelona, Boston and San Francisco.

The third group consists of cities with high potential and comprises those that, despite their current position, are in the lower middle area index and are evolving positively and rapidly (upper left quadrant). In this group, we find Latin American cities such as Buenos Aires, Quito, Lima or Montevideo, in addition to Asian cities such as Shanghai (the city that has gained the most positions during the period analyzed), Bangkok and Taipei.

The last group of cities includes those in a vulnerable position (lower left quadrant). This group is growing at a slower pace than others are and is in the medium-low position in the standings. It consists of cities such as Bombay, Ankara and La Paz. In this group, Rio de Ja-



neiro stands out as the city that has dropped the largest number of positions during the period analyzed.

The chart above is complemented with a variance analysis of the dimensions of the cities. This is because it is necessary not only to understand how much they have developed, but also how they have done this. To do this, we calculate the variation of the different dimensions for each of the cities. Cities in the bottom of the part of the graphic are cities that have similar positions in all dimensions and therefore have a more homogeneous distribution. Those in the top part are cities that stand out in one or more dimensions, but in others are placed in a relatively low position. This information, combined with the current position of each city, allows us to identify four categories of cities.

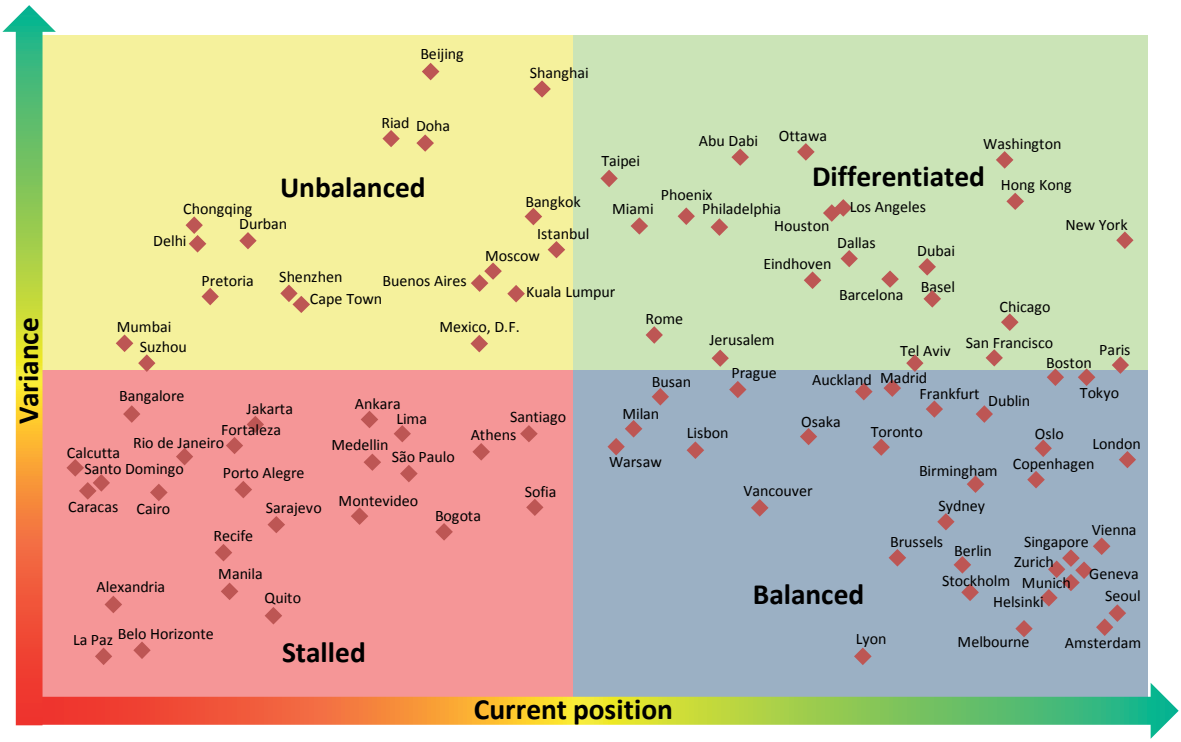
The first category is "Balanced" cities (lower right quadrant): those cities that are positioned in the upper middle of the graphic and have relatively high values in all dimensions. Within this category are cities such as Amsterdam, Seoul, Melbourne, Helsinki, Stockholm, Zurich and Vienna.

The second category is "Differentiated" cities (upper right quadrant), which are those cities in high positions in the ranking and do very well in some dimensions, but relatively poorly in others. An example is the city of Hong Kong, which is located among the top positions in the dimensions of technology and International Outreach but is among the worst in terms of Public Administration.

Or the city of New York, which is located among the top positions of various dimensions (economy, technology, International Outreach) but does relatively poorly in the dimensions of Social Cohesion and the Environment. In this category are cities such as Dubai, Barcelona, Los Angeles and Ottawa.

The third quadrant (upper left quadrant) reflects cities that are at the bottom of the table but which excel in one dimension. An example is the city of Beijing, which is among the top 5 cities in International Outreach, but below position 100 in the dimensions of Social Cohesion, Environment, Public Management and urbanism. In this category, we find cities such as Shanghai, Riyadh and Doha.

The last quadrant (lower left quadrant) are those cities that make them relatively poor in (almost) all dimensions. An example is the city of La Paz, located below the 100th position in all dimensions. In this category, we find cities such as Caracas, Manila and Quito.



CONCLUSIONS

The CIM synthetic index provides, through an objective calculation methodology, a ranking of cities that takes into account various factors. The 10 dimensions analyzed offer a broad and integrated vision what a city represents, while allowing a deeper understanding of its composition and evolution over time. A comparative and in-depth analysis of the distinct profiles reflected the different cities in the CIMI analysis offers the following conclusions:

- **There is no single model of success**.The cities that top the rankings are not identical, but they prioritize different dimensions (see Annex graph). There are different ways through which a city can climb to the top of the index. This means that cities must reject the "one-size-fits-all" approach. The evidence presented in this report is consistent with the message that our platform managers transmits to cities: the first step to be a better city is to define what kind of city it wants to be and in what dimensions you want to improve.

- **It is not enough to be good in one dimension**. There are cities located at the top of the ranking in certain dimensions. Such are the cases of Taipei, in Technology (3); Beijing in International Outreach (4) and Riyadh on Social Cohesion (2), which, in the general ranking, are located in positions 74, 99 and 105, respectively. These are the cities that the variance analysis we have called "unbalanced." If they want to play in the Champions League, the recommendation for these cities is that they should aspire to achieve an acceptable minimum in all dimensions.

- **It is important to consider the whole and break out of "silos"**. In relation to the previous point, and consistent with the proposed model, it is important to instill a comprehensive vision of the process of urban management. The separation of the 10 dimensions is a useful tool for facilitating the analysis. However, in practice, the elements are linked. For example, models for Mobility and Transportation that a city chooses will affect its environment dimension, in the same way Governance and Public Management are not independent. One of the main responsibilities of city managers is to understand the links among a city's different dimensions, as well as their advantages and disadvantages. In this sense, the city's structure should reflect these interrelationships avoiding "silos" between different departments in municipalities and strike an appropriate balance.

- **The perfect city does not exist**. It is very difficult for a city to maximize all dimensions. Even those that are located at the top of the ranking have weaknesses. For example, cities like London and New York have a long way to go in the Social Cohesion dimension. These cities have been classified as "differentiated" cities and

we recommend that they leverage the dimensions helping them to advance overall in the positions where they are behind. For example, a city can leverage its technological leadership to improve its Environment dimension. Cities classified as "balanced" (such as Amsterdam, Melbourne and Seoul), should not "rest on their laurels." Despite more harmonious growth, they still have room for improvement.

- **Change is slow for most cities**. While our temporal analysis of CIMI indicates that there are cities that are able to make great progress in a relatively short time and move up quickly (Singapore, Boston, Barcelona, Hong Kong, Shanghai), in general, change in position among cities in the ranking was not significant from one year to another. This is due, in large part, to the time needed for major projects to crystallize. Therefore, cities that seek to make necessary changes to become smart and sustainable cities should adopt long-term policies as soon as possible –especially those that are less well-placed and what we call in our analysis "stagnant." There are many cities that still have problems dealing with the major challenges such as: lack of collaboration among public and private organizations, civic institutions and citizens; inability to promote new business models that provide financing for new businesses; and a myopic view of intelligent cities. Many of these cities still see technology as the main ingredient of a smart city and do not consider other critical dimensions that define the urban reality.

- **The use of CIMI as a planning tool**. In order to define the city of future that it wants to be, that is, its vision, it is important to start with a good diagnosis. This report provides a conceptual framework and empirical evidence that can assist cities included in the index, as well as those that have been left out to make that diagnosis. For the first group, it offers the current status of each, indicating in what respects there is room for improvement. For the latter, this report can serve to identify the relevant dimensions to consider in urban planning, as well as help define the group of cities it would like to emulate. In this sense, benchmarks provided by the CIMI should be understood as such; the index does not present a roadmap to follow to the letter. It is also important to note that our recommendation to urban managers is to pay more attention to the trend (dynamic analysis) than to position.

- **Cities do not always have the reputation they deserve**. The comparative study of what the city is (CIMI) and the perception that the general public has of the city (IR) indicate that there are cities that should work more effectively at communicating their virtues (e.g., Seoul, which is ranked 3rd in the CIMI, but 77th in the IR). Moreover, there are cities that enjoy a reputation above what is indicated by the CIMI (such as Florence, which is positioned as 63rd in the CIMI, but ranks 4th in the IR). These cities must be careful, because if the distance between "what the city really is" and "what it says it is" is very wide, this may negatively affect its legitimacy.

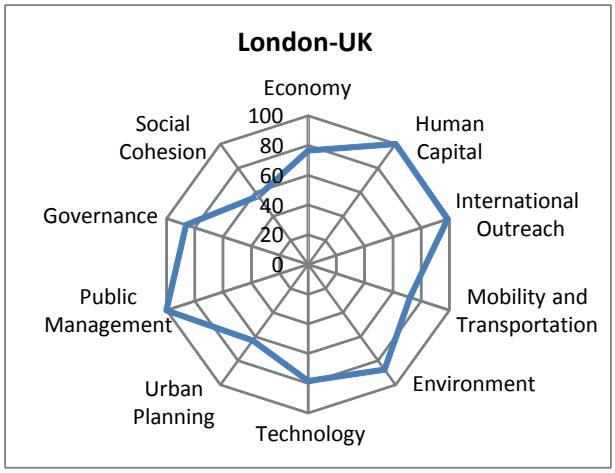
- **Cities do not operate in isolation**. Every city is different, but none operates in isolation from the realities of the country in which they find themselves. While it is true that investors, talent, and tourists tend to compare and decide among cities, these decisions are not independent of the conditions of the countries where these cities are located. Thus, the urban manager must be able to identify threats and opportunities that the national context offers to avoid the first and take advantage of the latter.

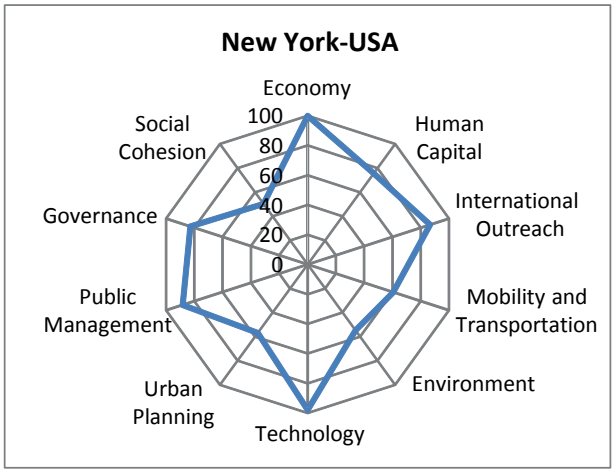
Urbanization is one of the most important challenges of the 21st century. As the world's population increasingly moves to cities, existing problems grow and generate new ones, which also are deeply influenced by the globalization process. This trend implies a closer relationship between global dynamics and cities, generating local impact: effects on the economy, demographics, social divisions and environmental impact.

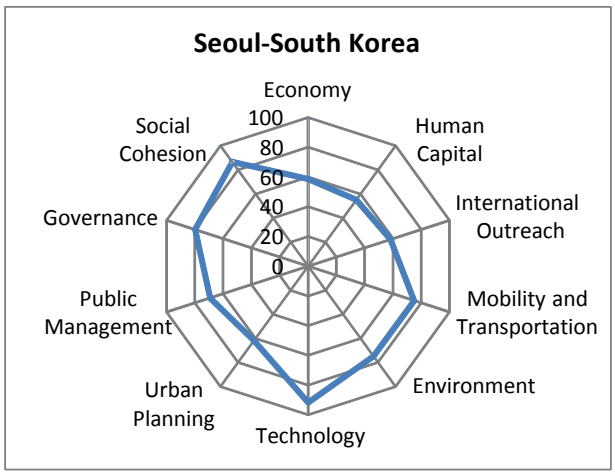
Despite these challenges, cities and their leaders or managers have little time and few tools to step back and analyze their problems, find out what other cities do or learn what best practices are being carried out in other parts of the world. The day-to-day management of the city makes it difficult for cities to ask questions, such as how to promote the positive effects of urbanization and reduce the negative one. That's why the IESE Cities in Motion platform seeks to create awareness and generate innovative tools to help foster smarter governments. With this index, we hope to have contributed toward reaching this goal.

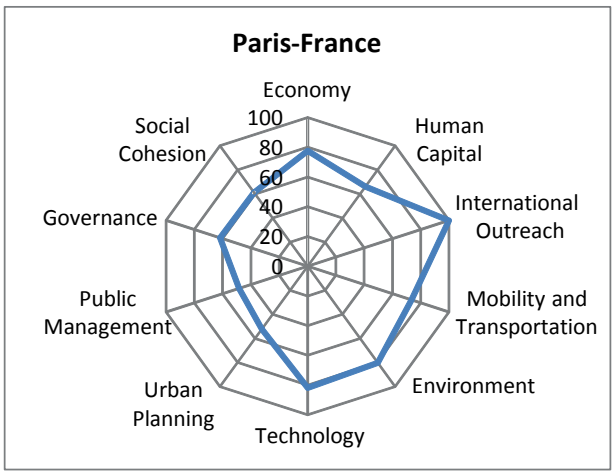
GRAPHIC ANNEX. PROFILES OF 148 CITIES

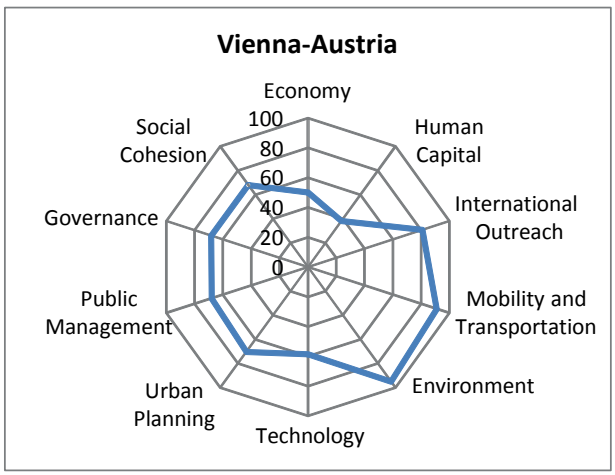
Below is a graphic analysis of 148 cities included in the CIMI, based on 10 key dimensions. These radar charts are intended to facilitate the interpretation of each city profile, identifying the values of different dimensions. At the same time, they permit a quick comparison of two or more cities.

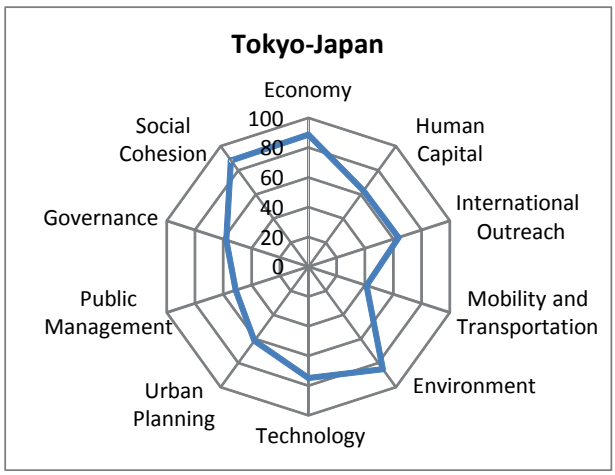











Tokyo-Japan
Economy
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International Outreach
Mobility and Transportation
Environment
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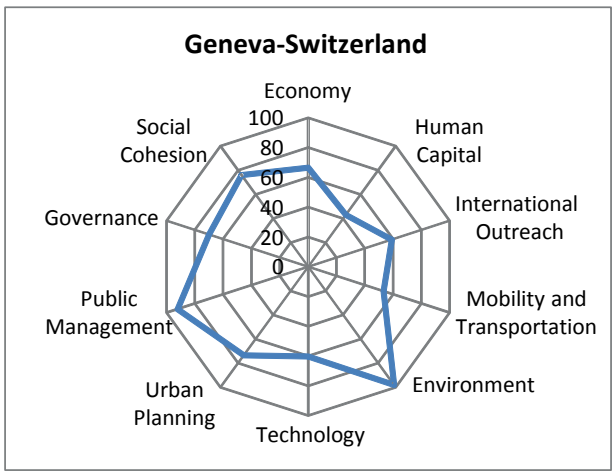
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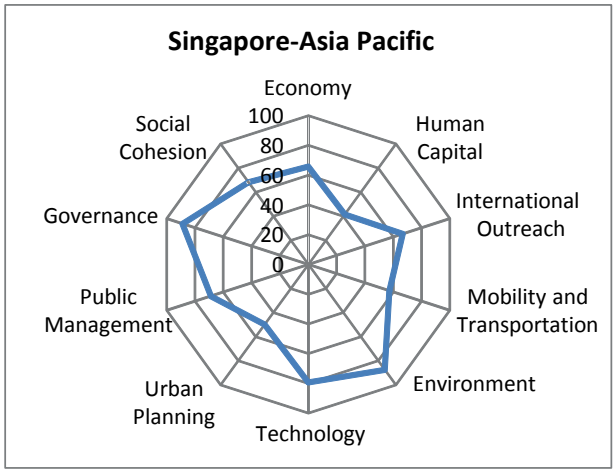
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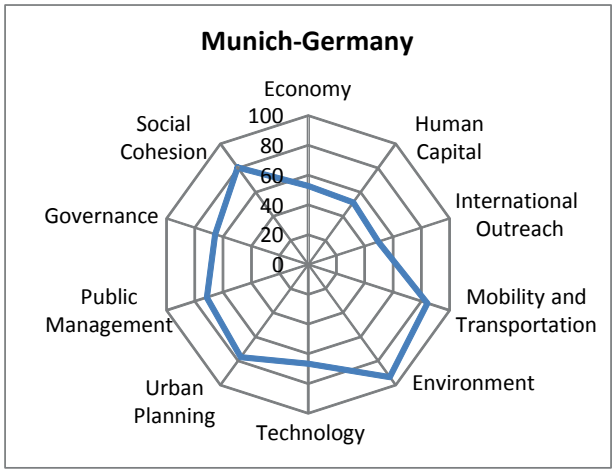
Munich-Germany
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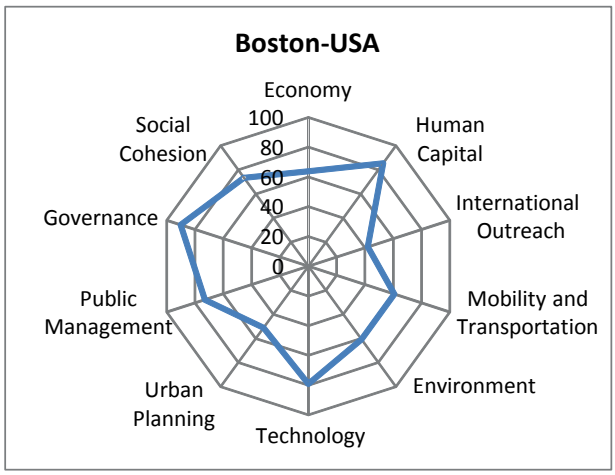
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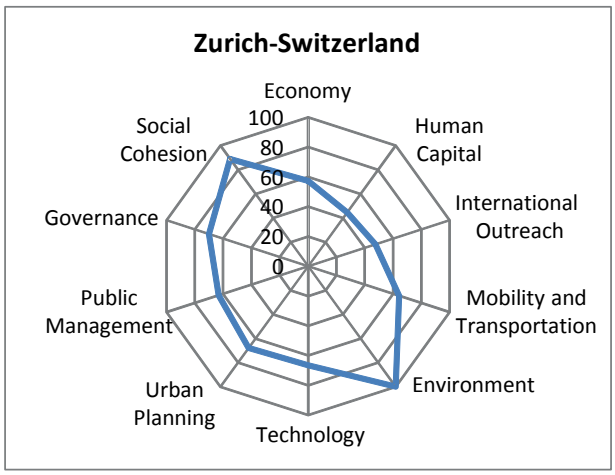
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Helsinki-Finland
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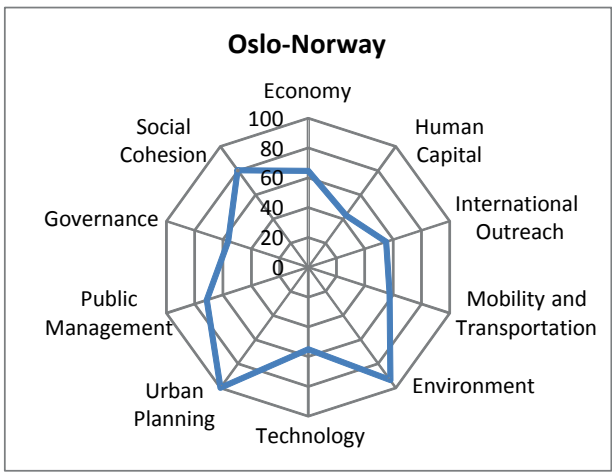
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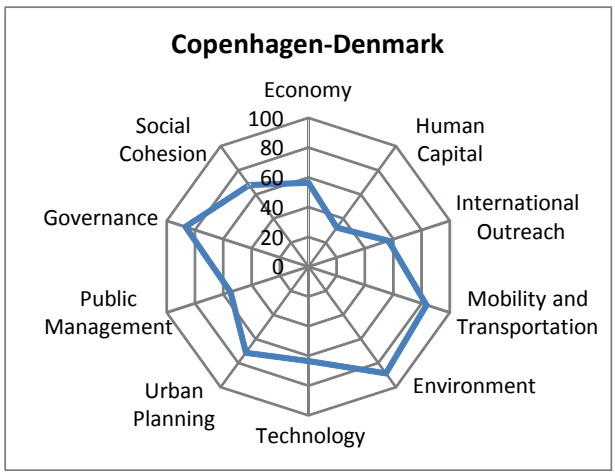
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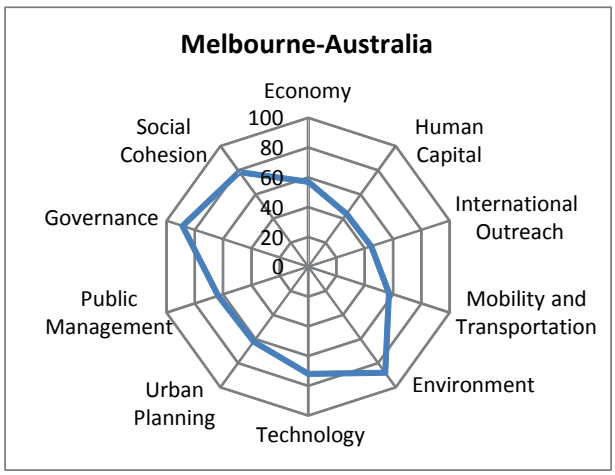
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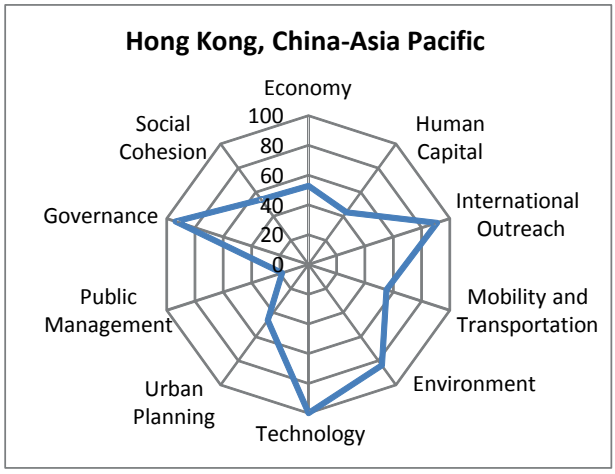
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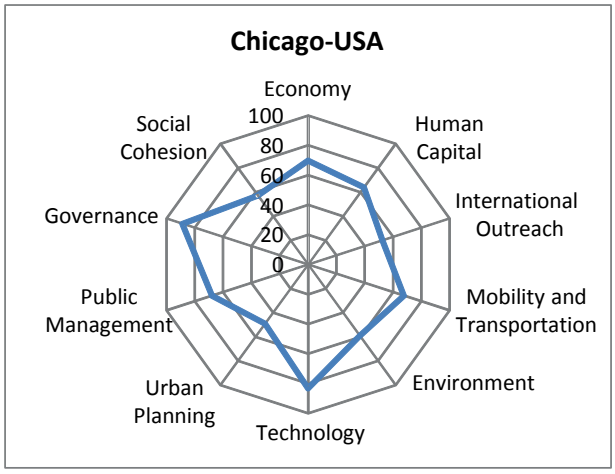
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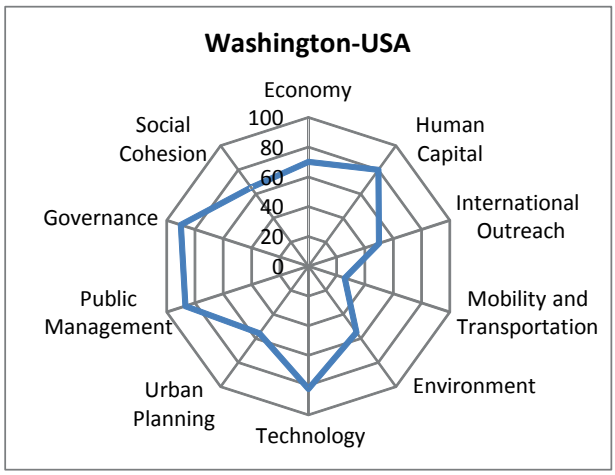
Washington-USA
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Mobility and Transportation
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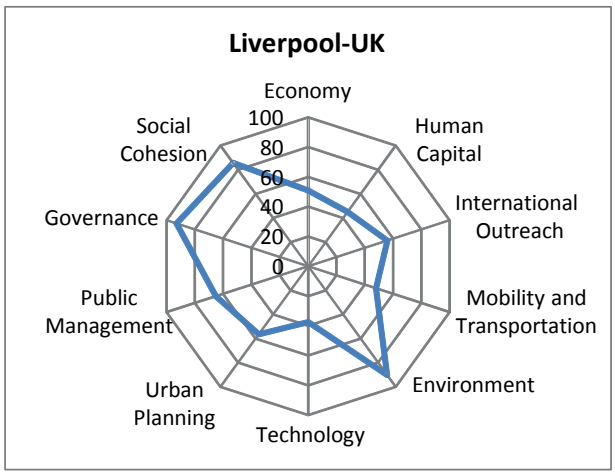
Liverpool-UK
Economy
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Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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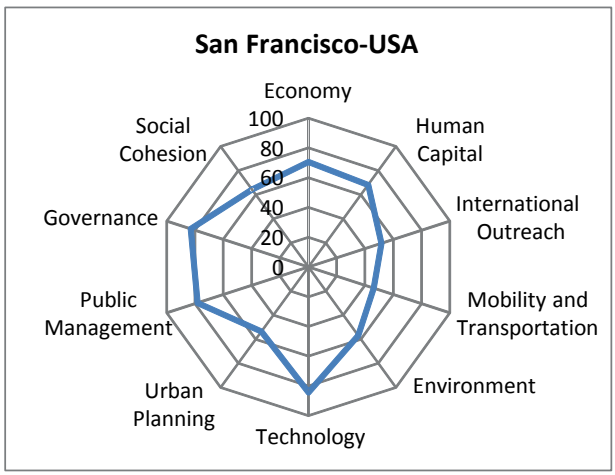
San Francisco-USA
Economy
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International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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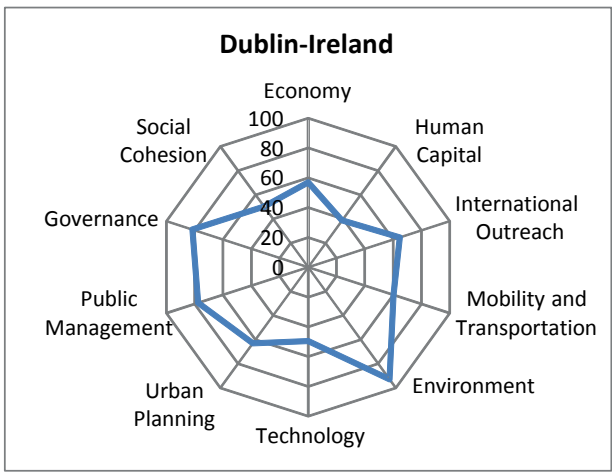
Dublin-Ireland
Economy
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Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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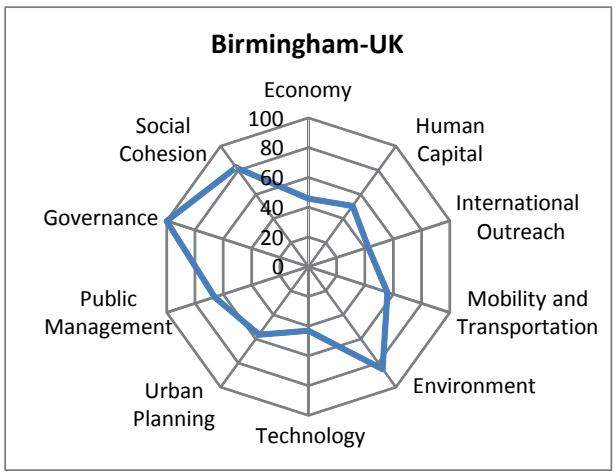
Birmingham-UK
Economy
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Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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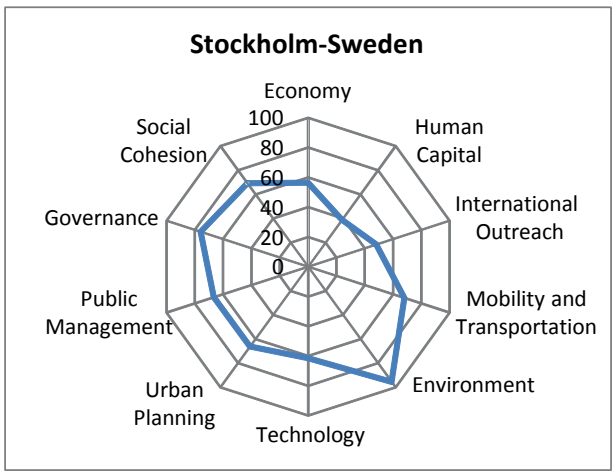
Stockholm-Sweden
Economy
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Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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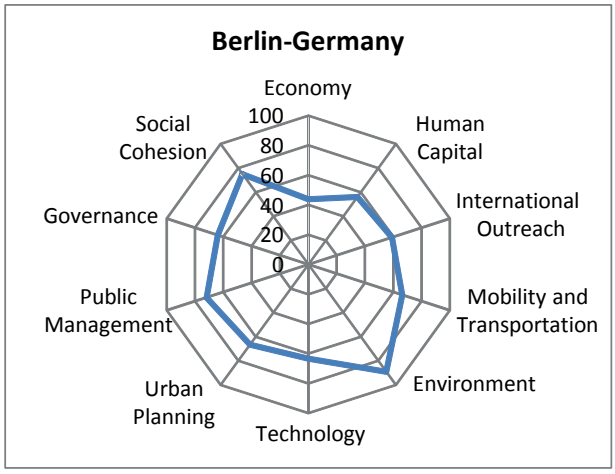
Berlin-Germany
Economy
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Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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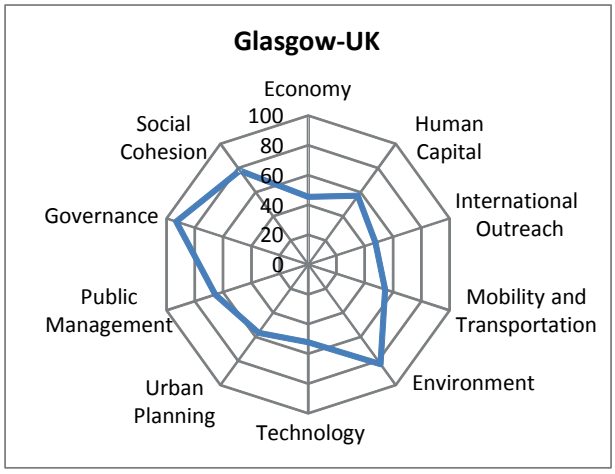
Glasgow-UK
Economy
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Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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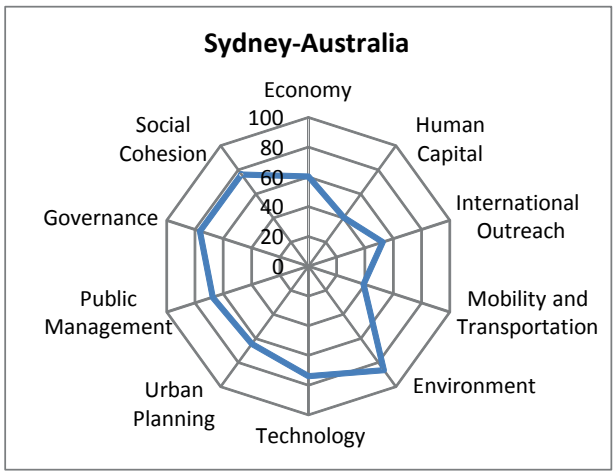
Sydney-Australia
Economy
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Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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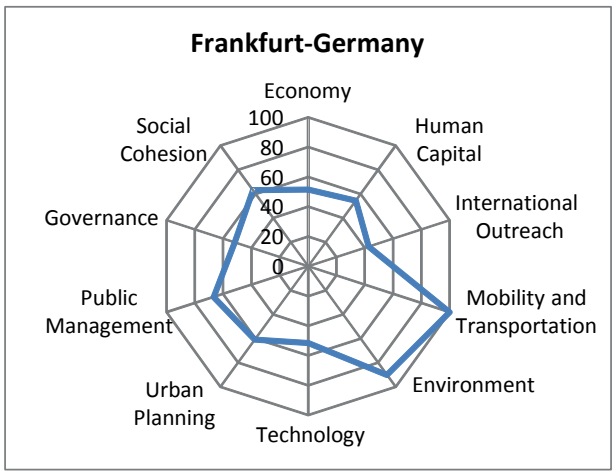
Frankfurt-Germany
Economy
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Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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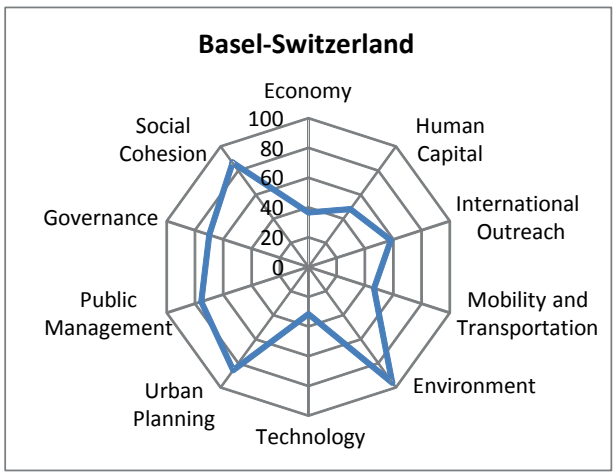
Basel-Switzerland
Economy
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Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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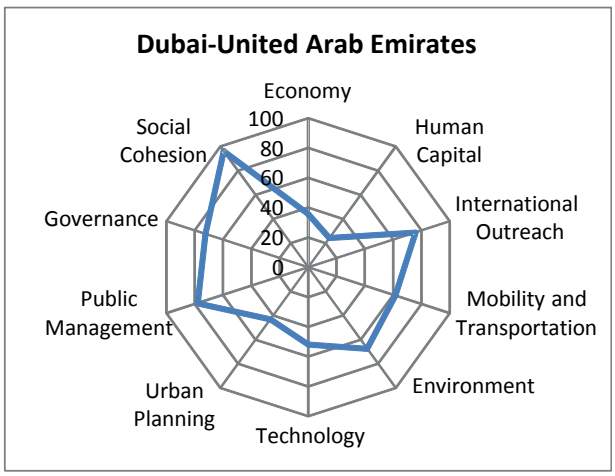
Dubai-United Arab Emirates
Economy
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International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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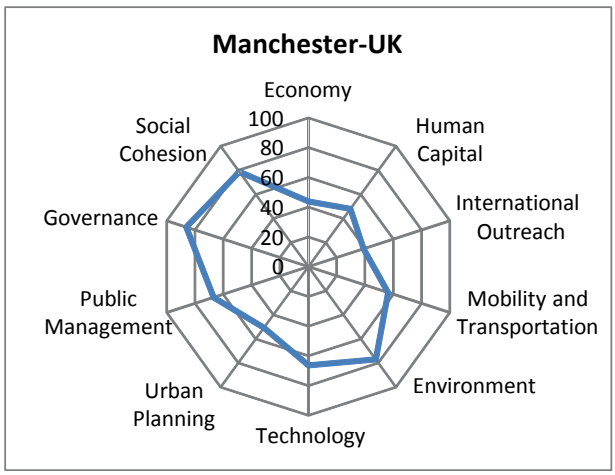
Manchester-UK
Economy
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Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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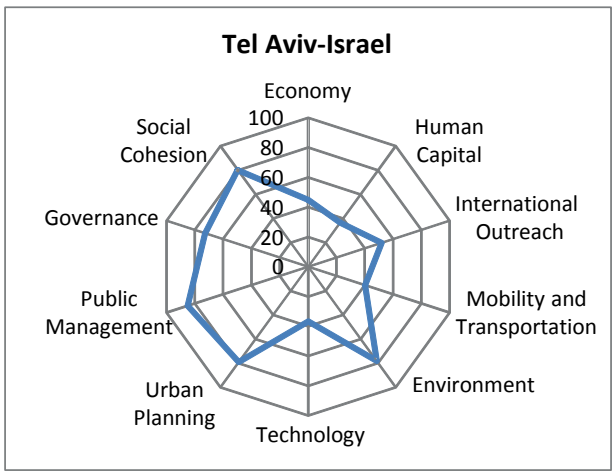
Tel Aviv-Israel
Economy
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Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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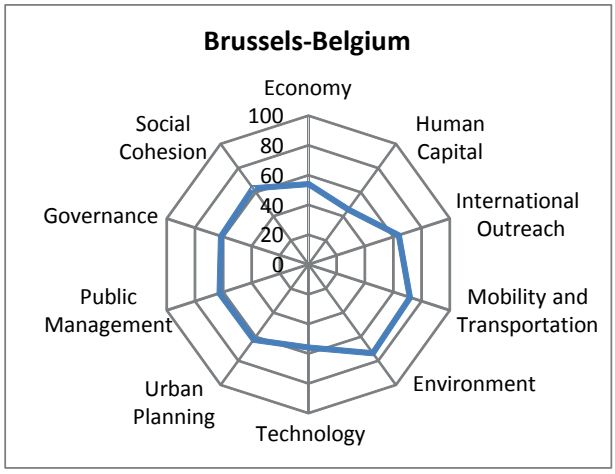
Brussels-Belgium
Economy
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International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
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Social Cohesion
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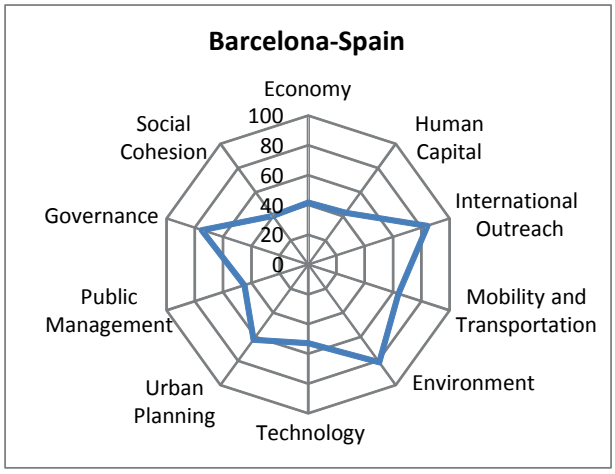
Barcelona-Spain
Economy
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International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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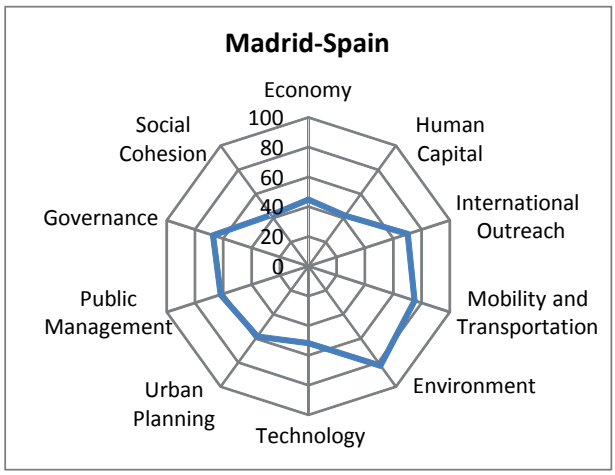
Madrid-Spain
Economy
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Technology
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Public Management
Governance
Social Cohesion
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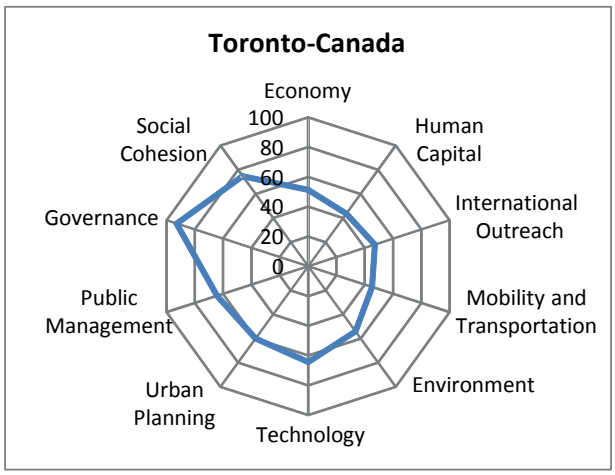
Toronto-Canada
Economy
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International Outreach
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Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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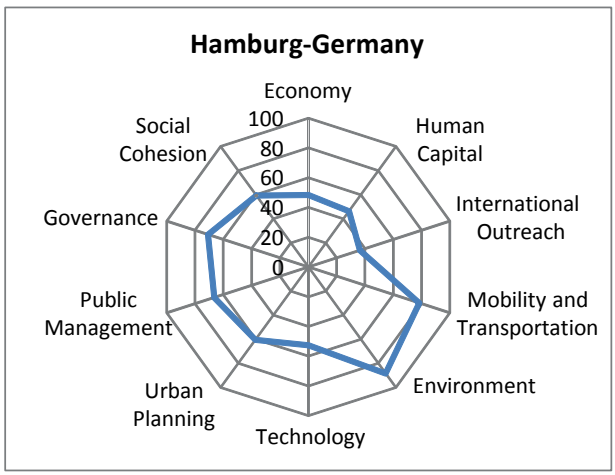
Hamburg-Germany
Economy
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International Outreach
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Technology
Urban Planning
Public Management
Governance
Social Cohesion
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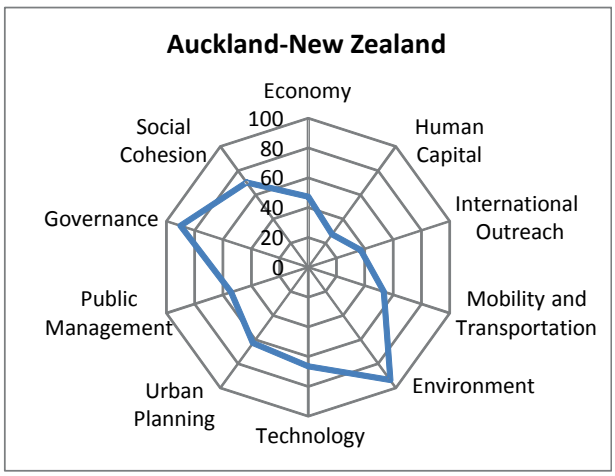
Auckland-New Zealand
Economy
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Technology
Urban Planning
Public Management
Governance
Social Cohesion
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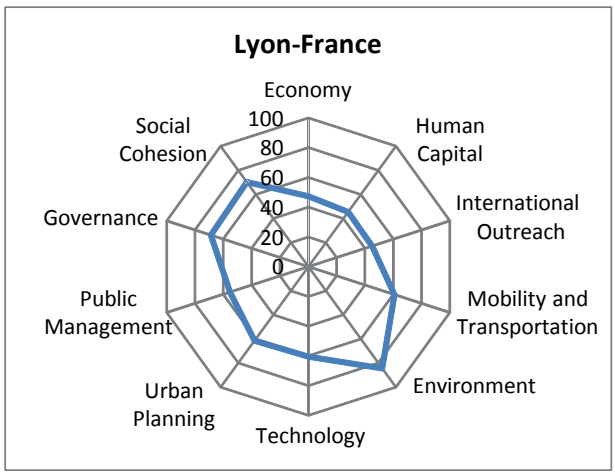
Lyon-France
Economy
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Technology
Urban Planning
Public Management
Governance
Social Cohesion
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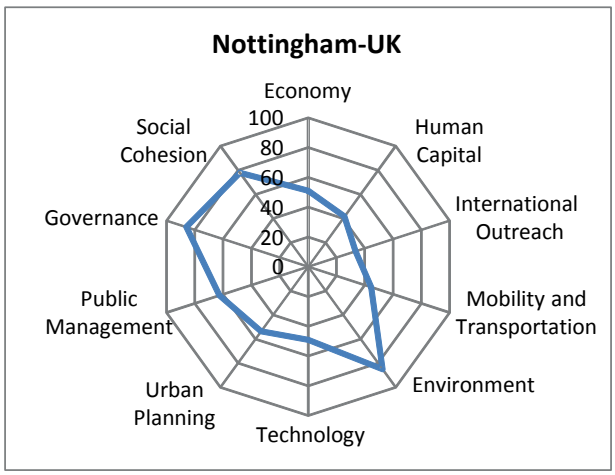
Nottingham-UK
Economy
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Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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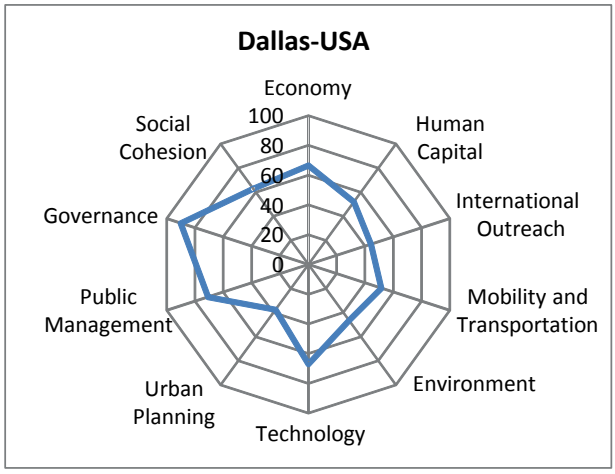
Dallas-USA
Economy
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Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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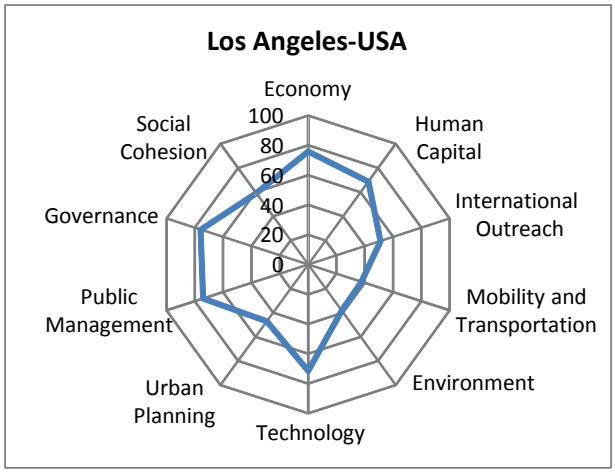
Los Angeles-USA
Economy
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Environment
Technology
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Public Management
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Social Cohesion
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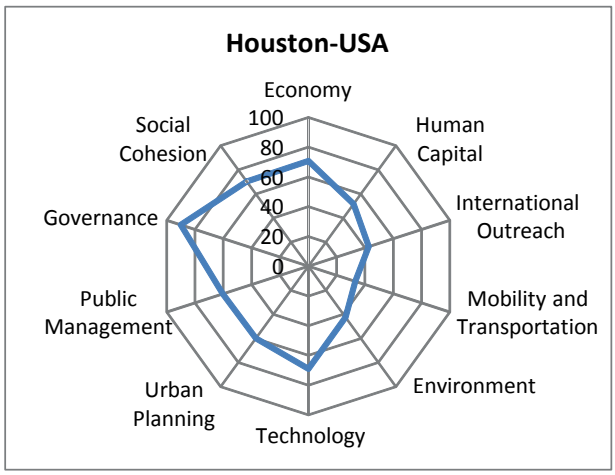
Houston-USA
Economy
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International Outreach
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Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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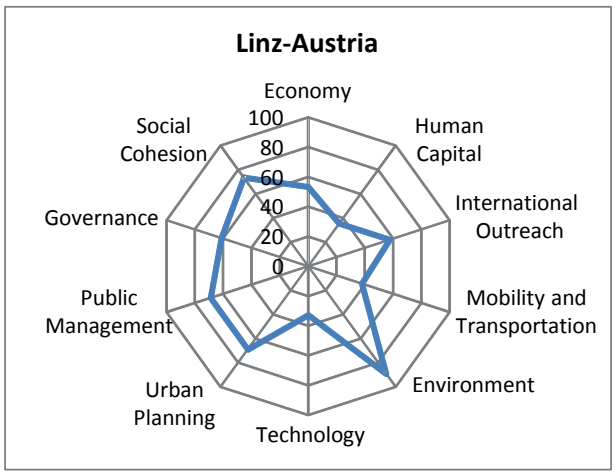
Linz-Austria
Economy
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Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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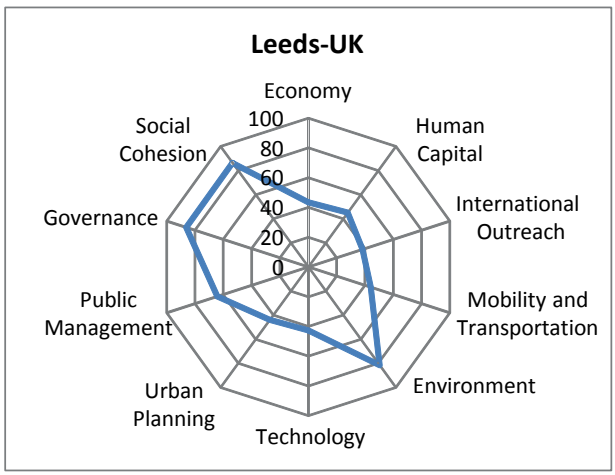
Leeds-UK
Economy
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Mobility and Transportation
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Technology
Urban Planning
Public Management
Governance
Social Cohesion
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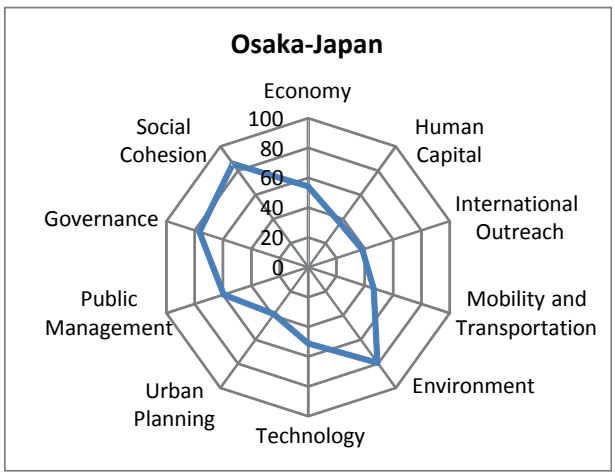
Osaka-Japan
Economy
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Technology
Urban Planning
Public Management
Governance
Social Cohesion
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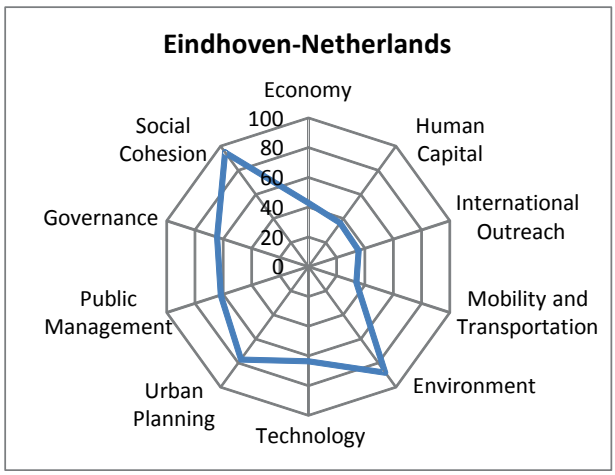
Eindhoven-Netherlands
Economy
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International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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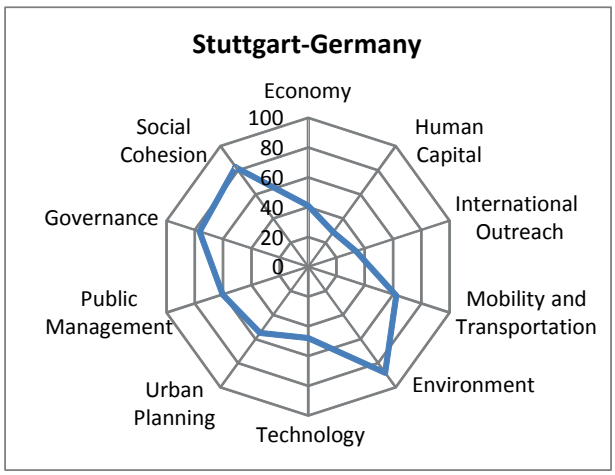
Stuttgart-Germany
Economy
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International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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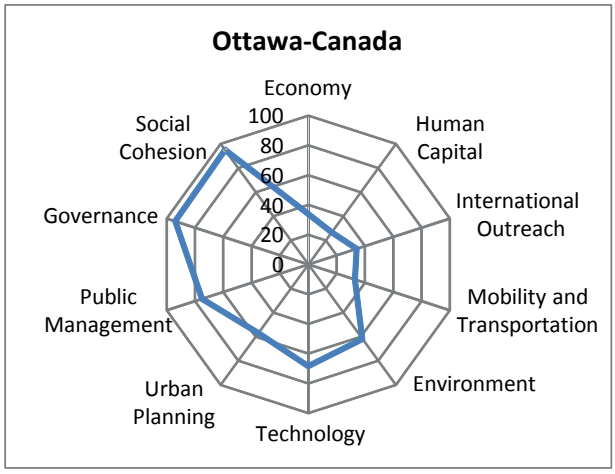
Ottawa-Canada
Economy
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International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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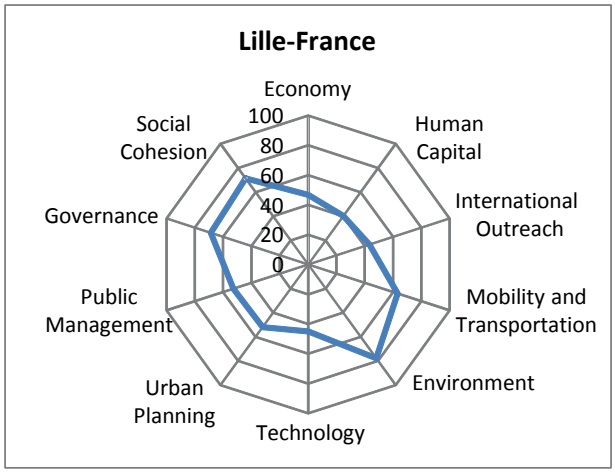
Lille-France
Economy
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International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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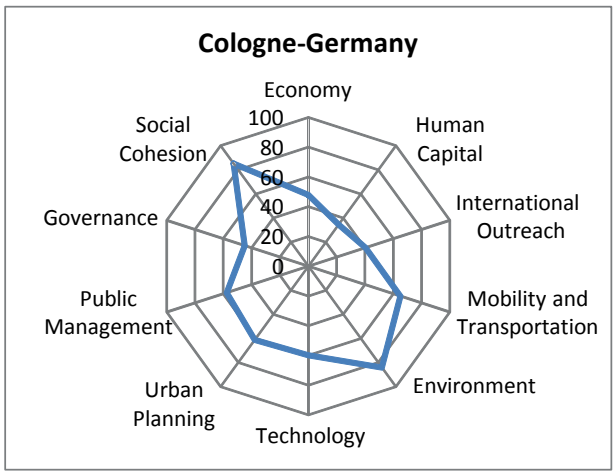
Cologne-Germany
Economy
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International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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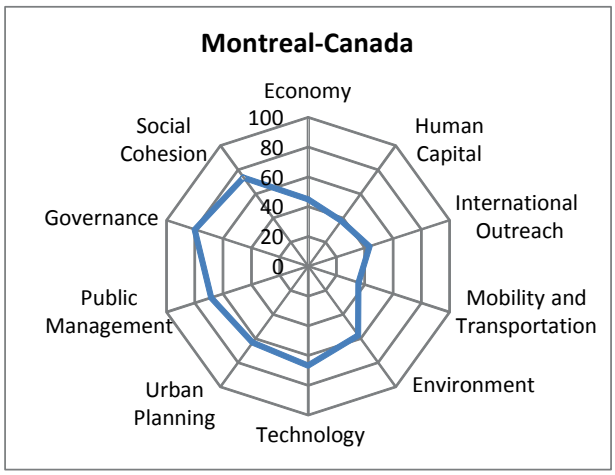
Montreal-Canada
Economy
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International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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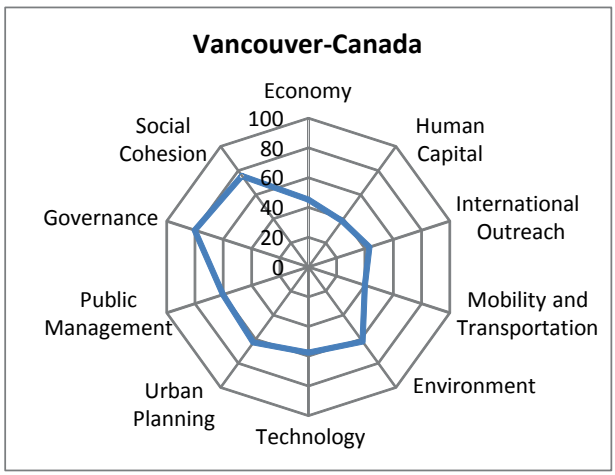
Vancouver-Canada
Economy
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International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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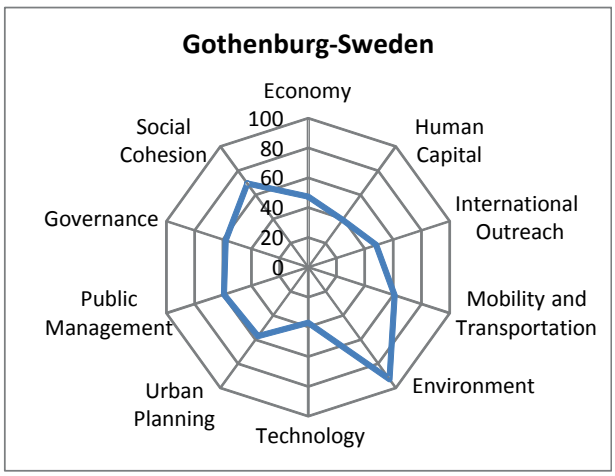
Gothenburg-Sweden
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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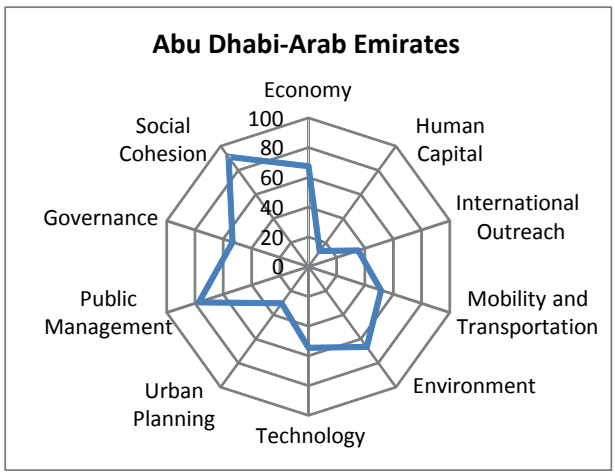
Abu Dhabi-Arab Emirates
Economy
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Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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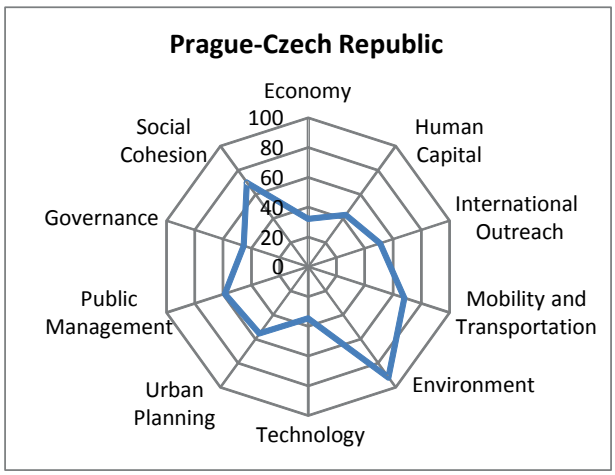
Prague-Czech Republic
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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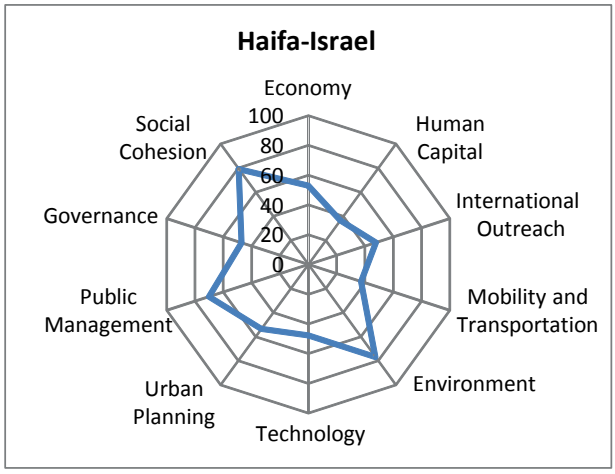
Haifa-Israel
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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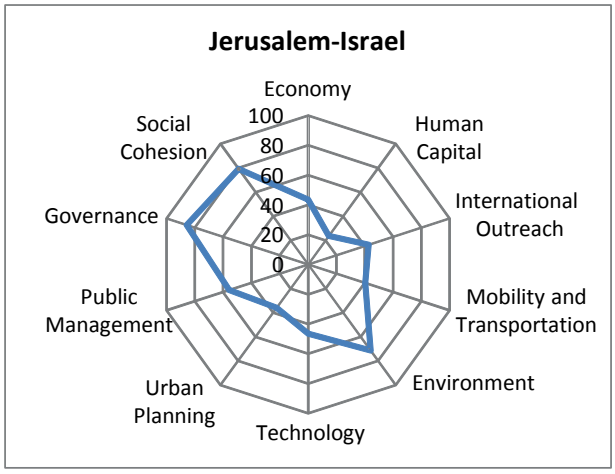
Jerusalem-Israel
Economy
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International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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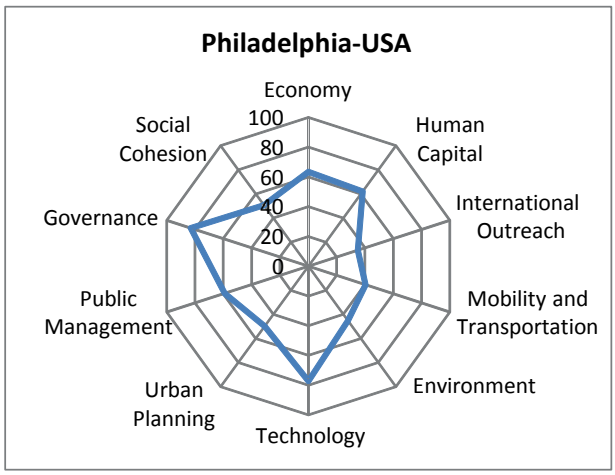
Philadelphia-USA
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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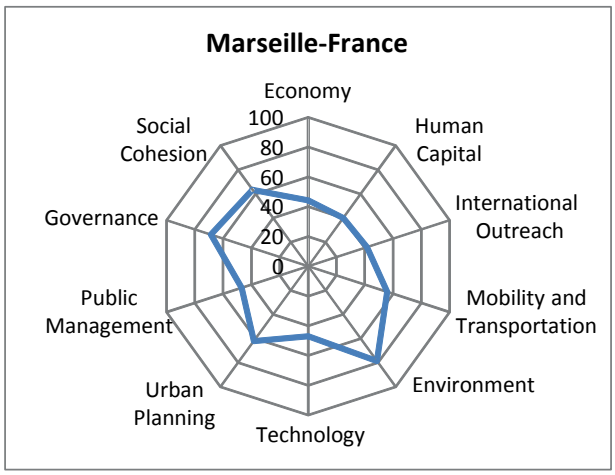
Marseille-France
Economy
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International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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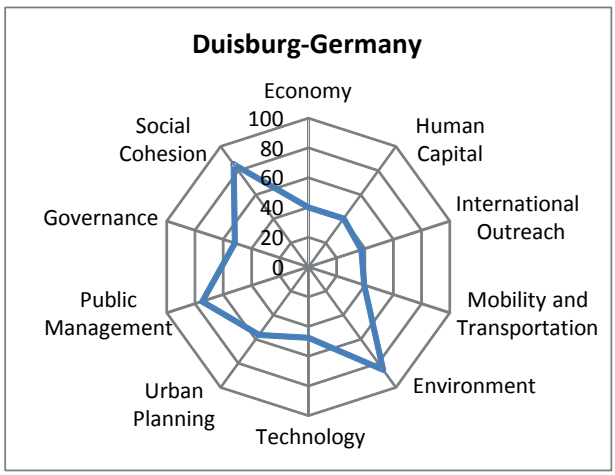
Duisburg-Germany
Economy
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International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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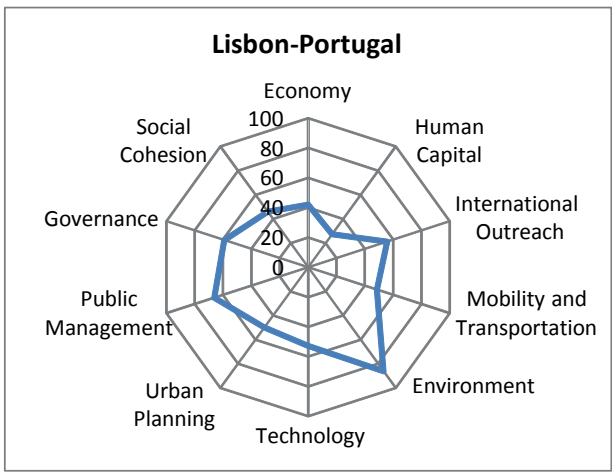
Lisbon-Portugal
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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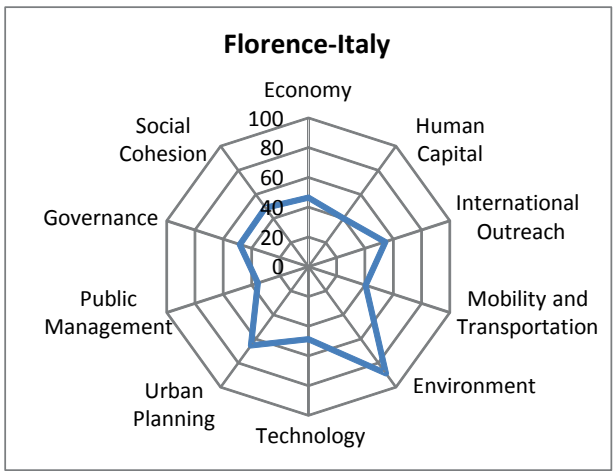
Florence-Italy
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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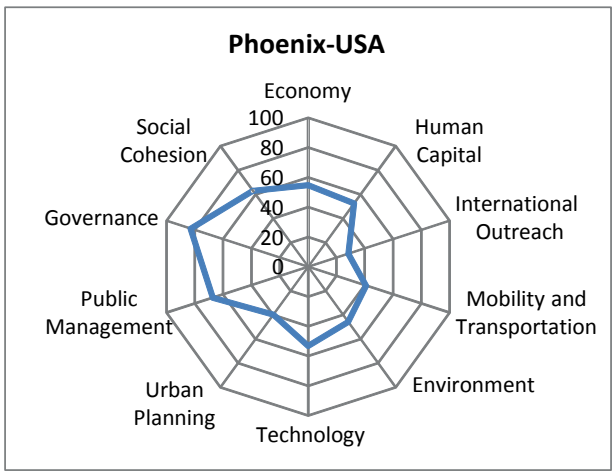
Phoenix-USA
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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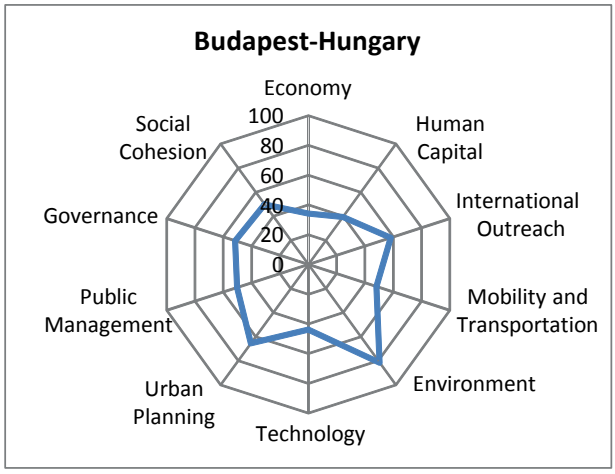
Budapest-Hungary
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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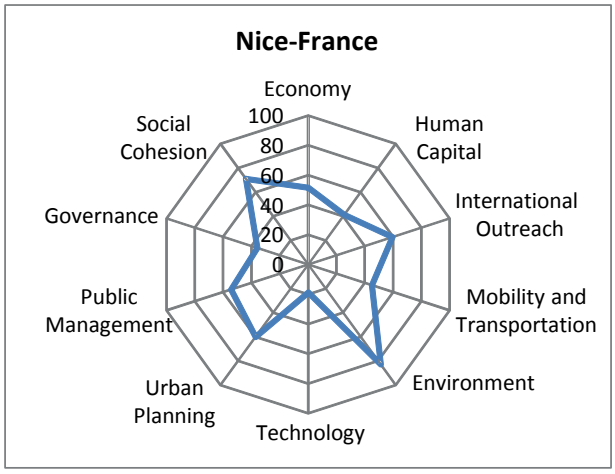
Nice-France
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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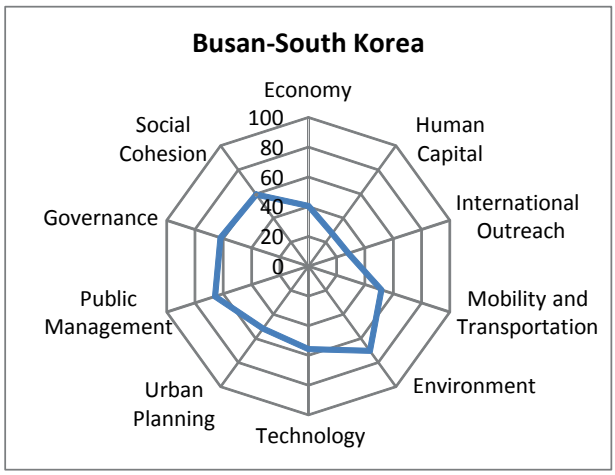
Busan-South Korea
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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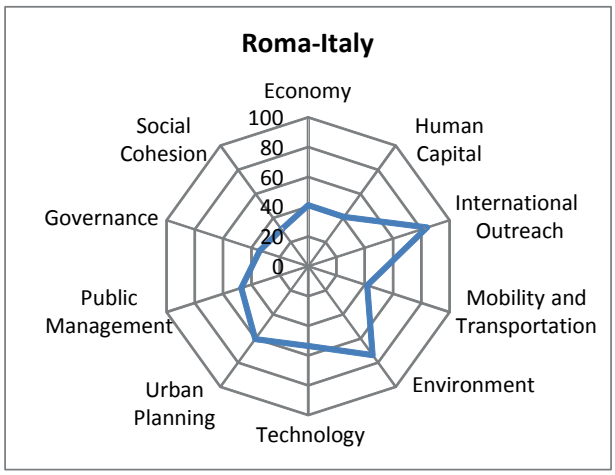
Roma-Italy
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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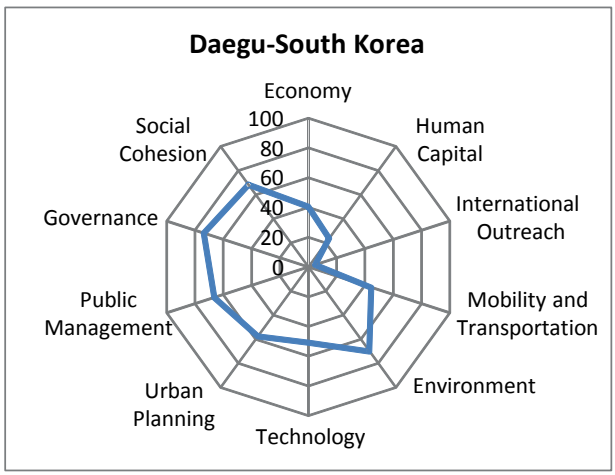
Daegu-South Korea
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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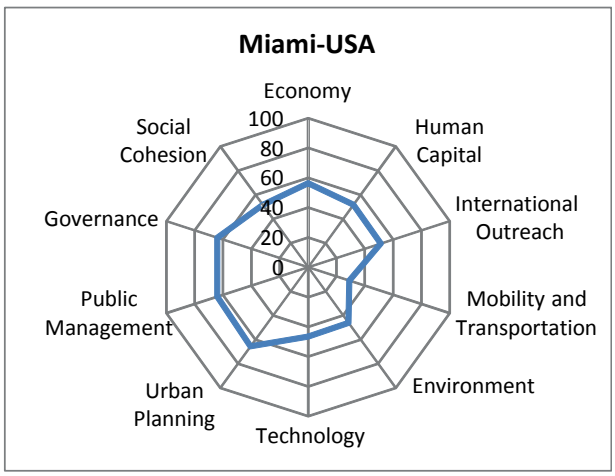
Miami-USA
Economy
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International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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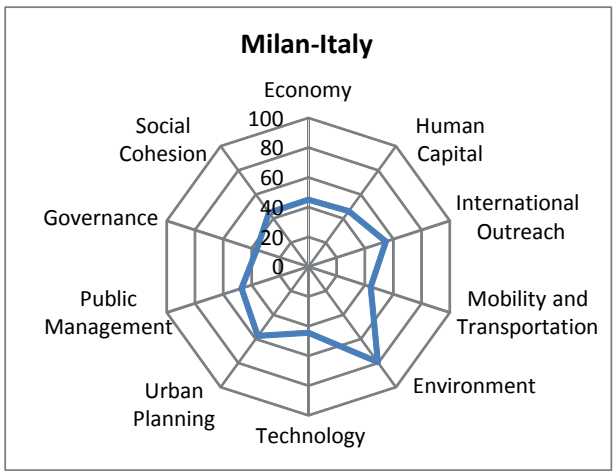
Milan-Italy
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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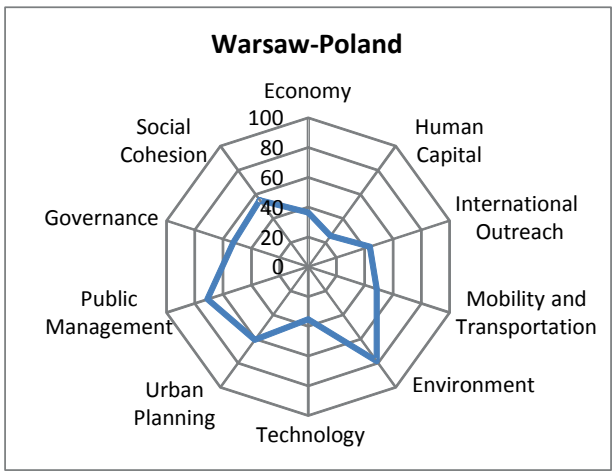
Warsaw-Poland
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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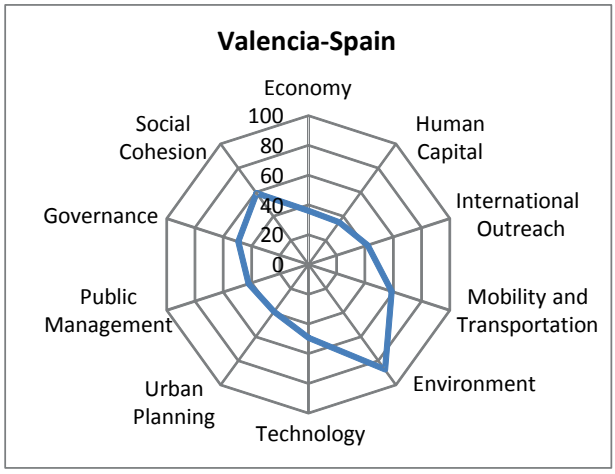
Valencia-Spain
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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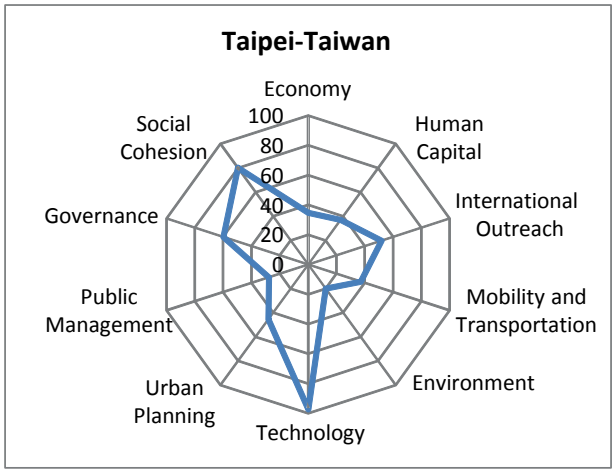
Taipei-Taiwan
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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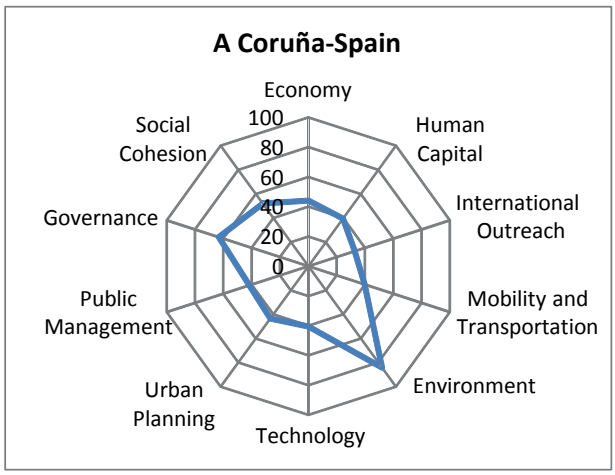
A Coruña-Spain
Economy
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International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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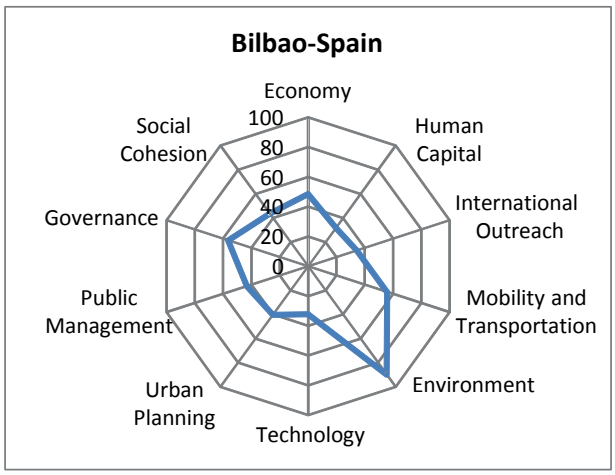
Bilbao-Spain
Economy
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Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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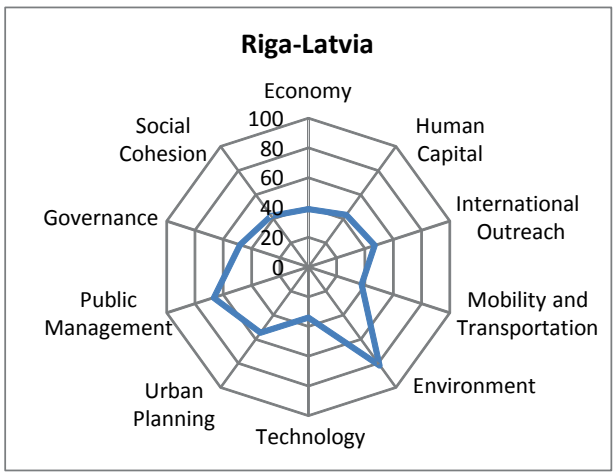
Riga-Latvia
Economy
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International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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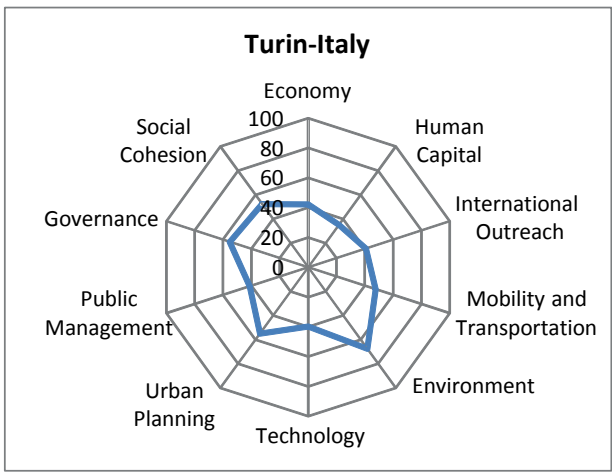
Turin-Italy
Economy
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International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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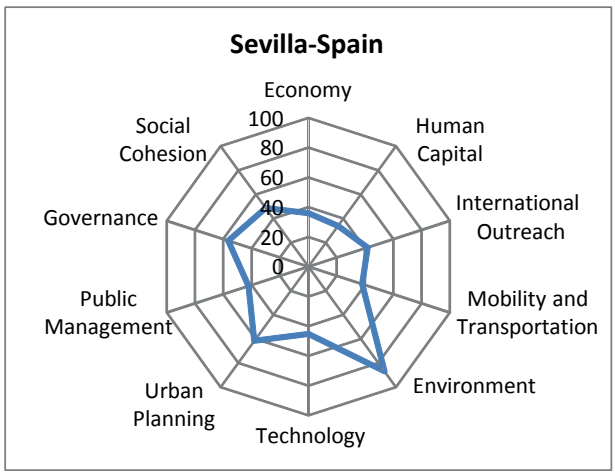
Sevilla-Spain
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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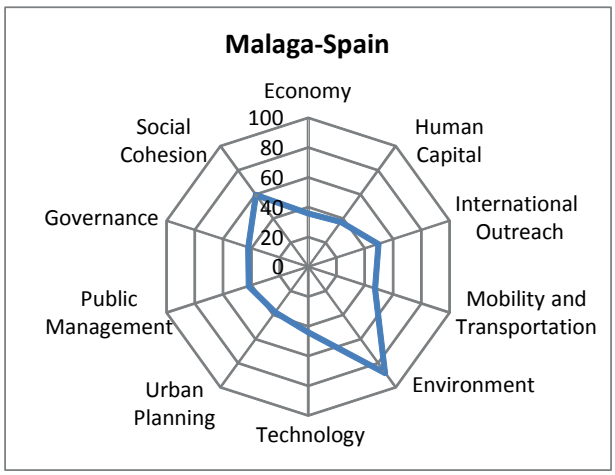
Malaga-Spain
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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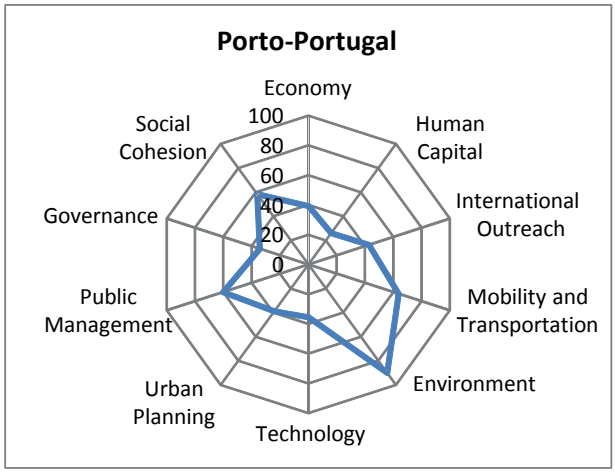
Porto-Portugal
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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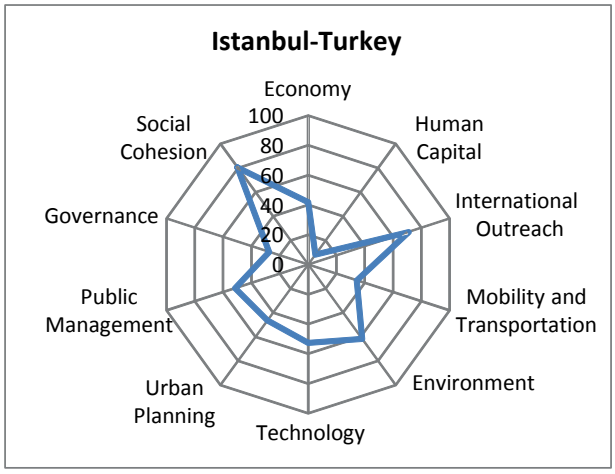
Istanbul-Turkey
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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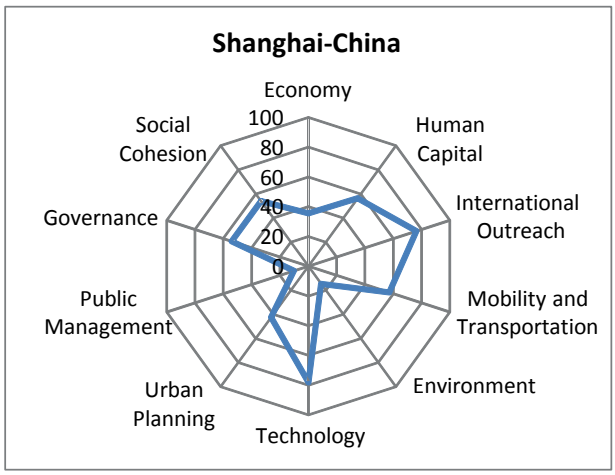
Shanghai-China
Economy
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International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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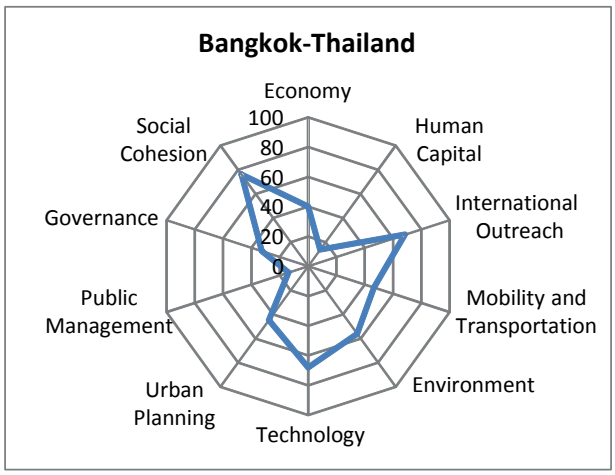
Bangkok-Thailand
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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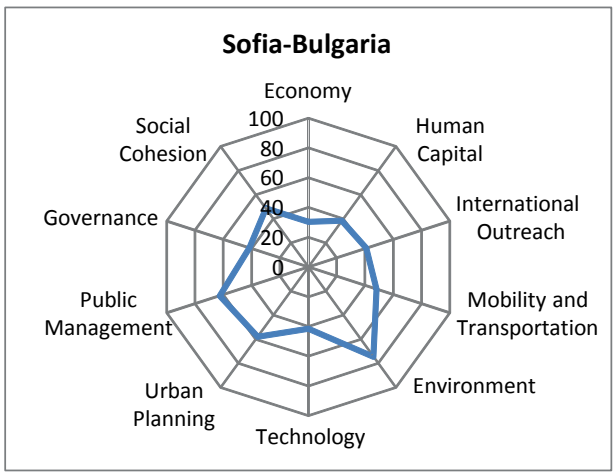
Sofia-Bulgaria
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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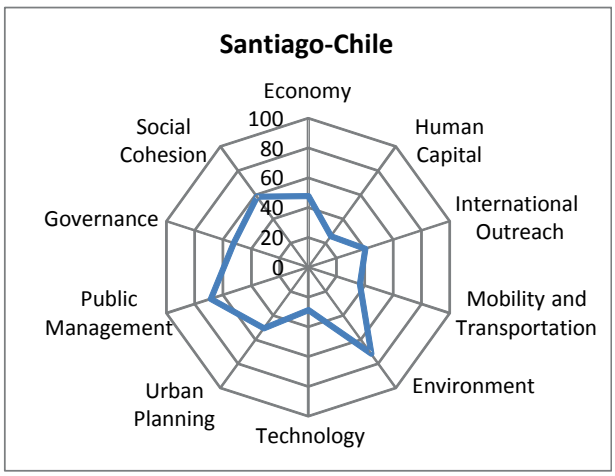
Santiago-Chile
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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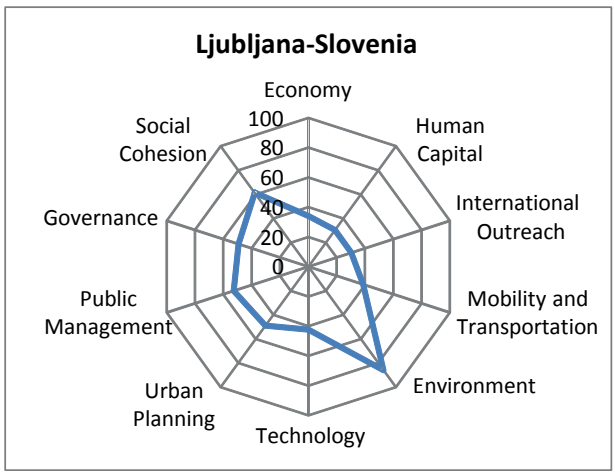
Ljubljana-Slovenia
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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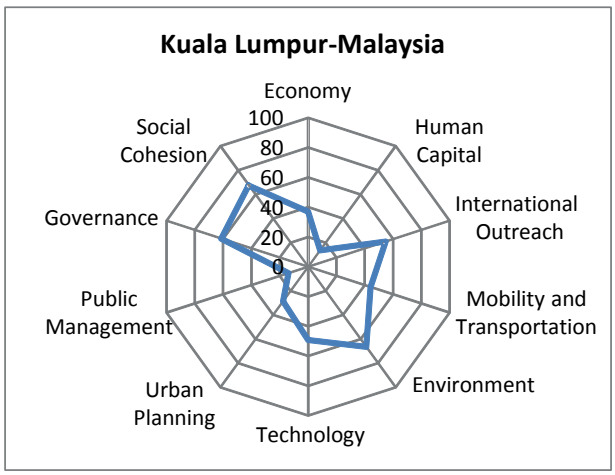
Kuala Lumpur-Malaysia
Economy
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International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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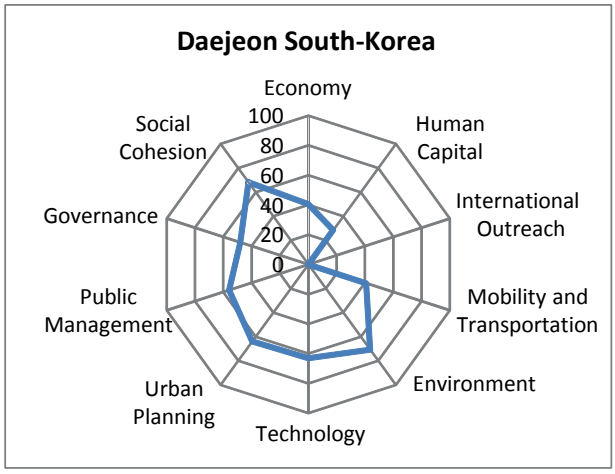
Daejeon South-Korea
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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Moscow-Russia
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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Moscow-Russia
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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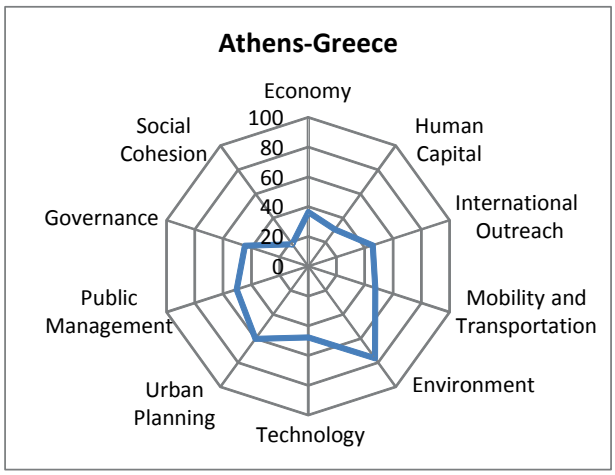
Athens-Greece
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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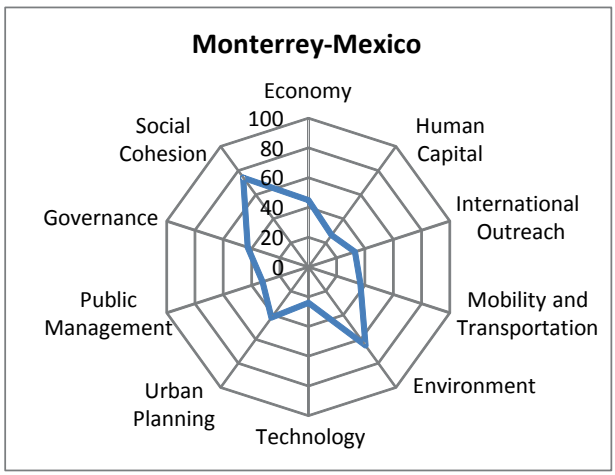
Monterrey-Mexico
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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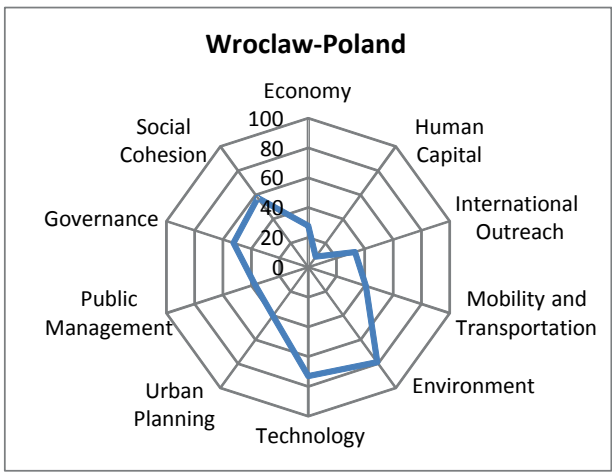
Wroclaw-Poland
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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Mexico, D.F.-Mexico
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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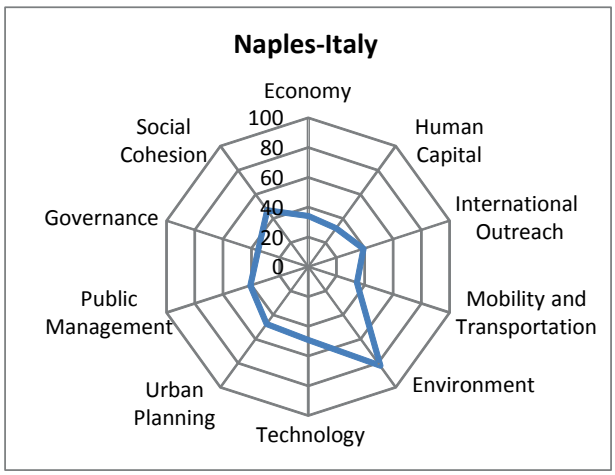
Naples-Italy
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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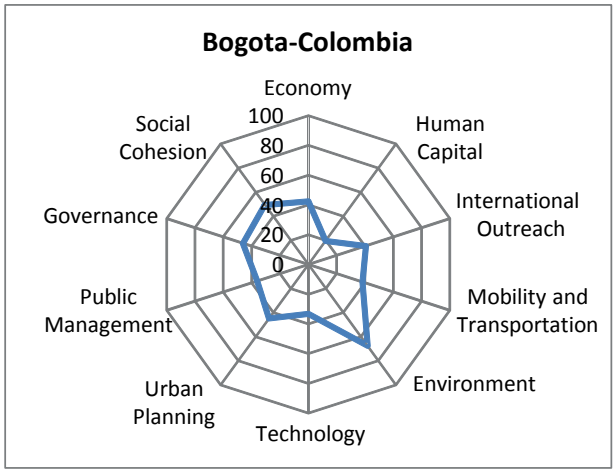
Bogota-Colombia
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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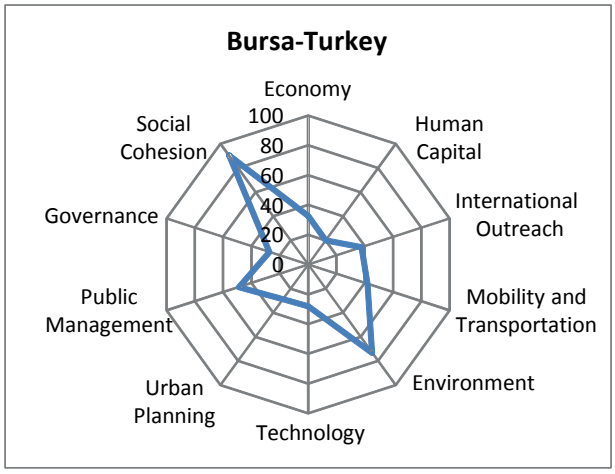
Bursa-Turkey
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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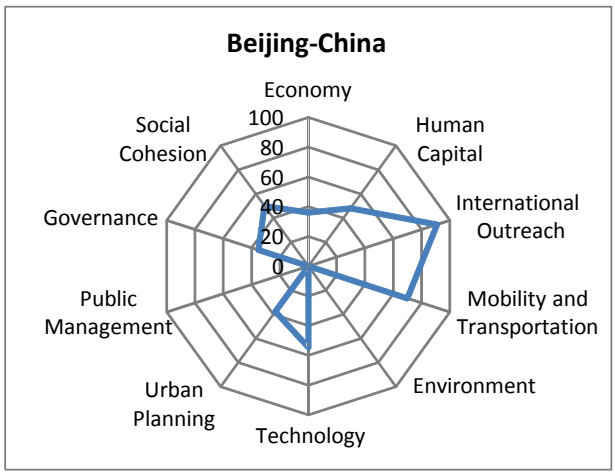
Beijing-China
Economy
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International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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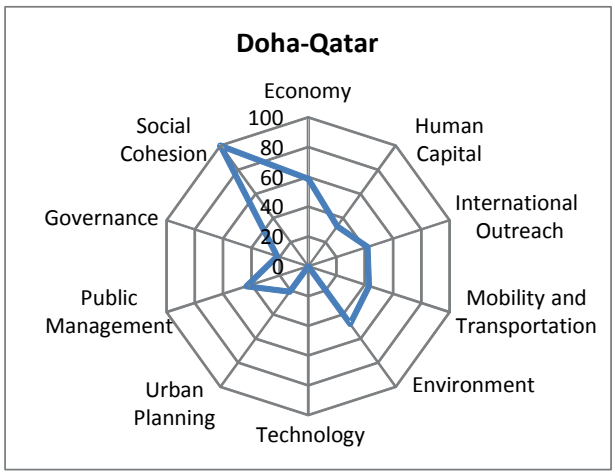
Doha-Qatar
Economy
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Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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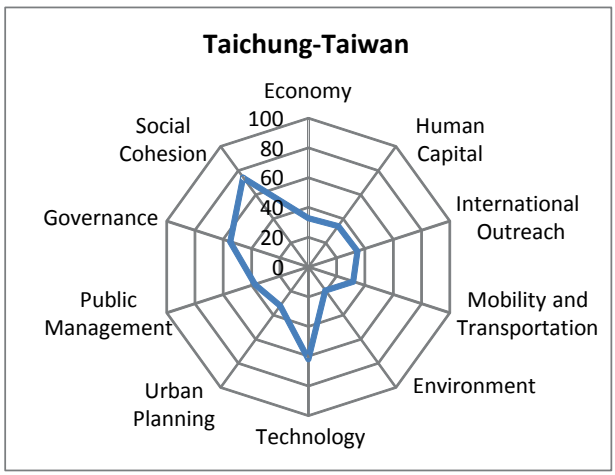
Taichung-Taiwan
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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São Paulo-Brazil
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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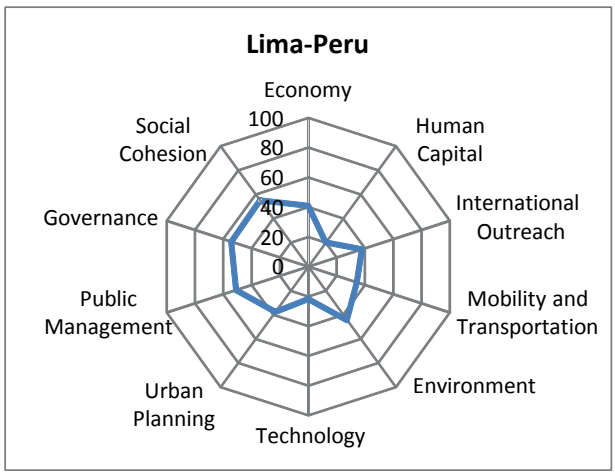
Lima-Peru
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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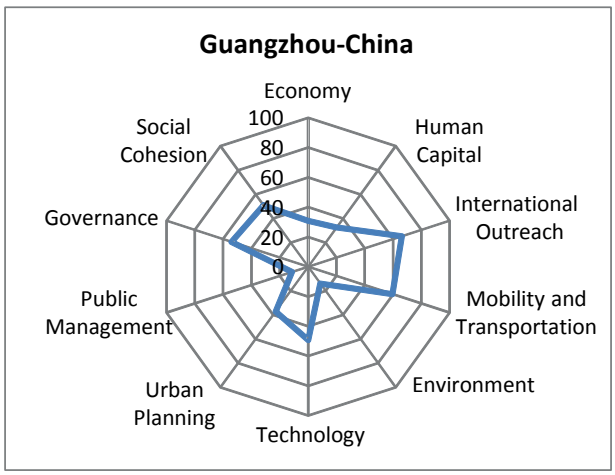
Guangzhou-China
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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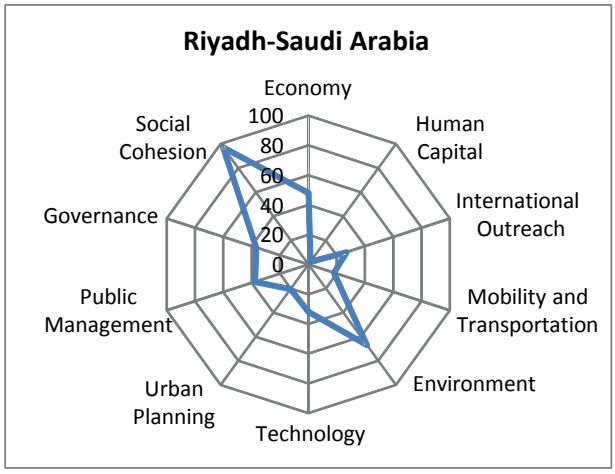
Riyadh-Saudi Arabia
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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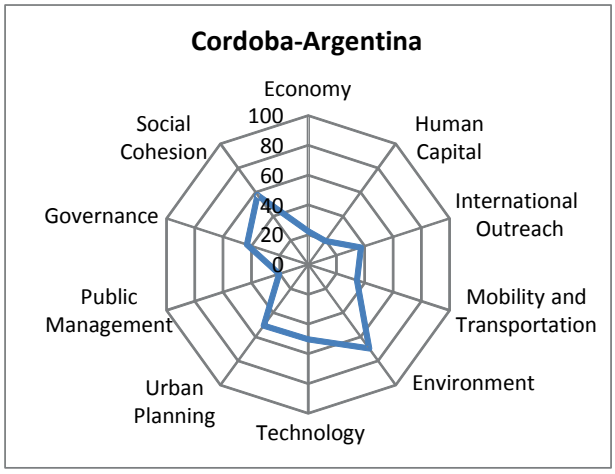
Cordoba-Argentina
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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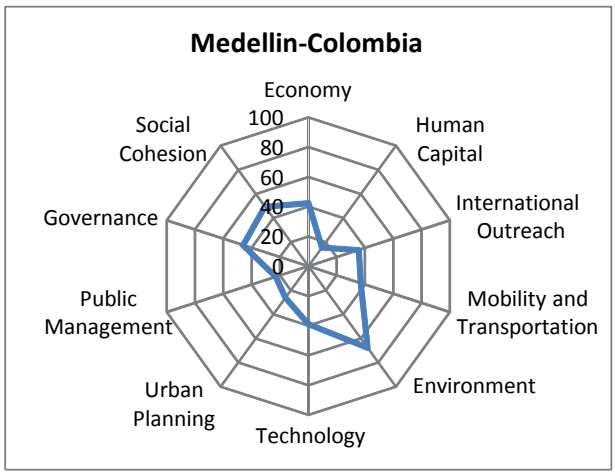
Medellin-Colombia
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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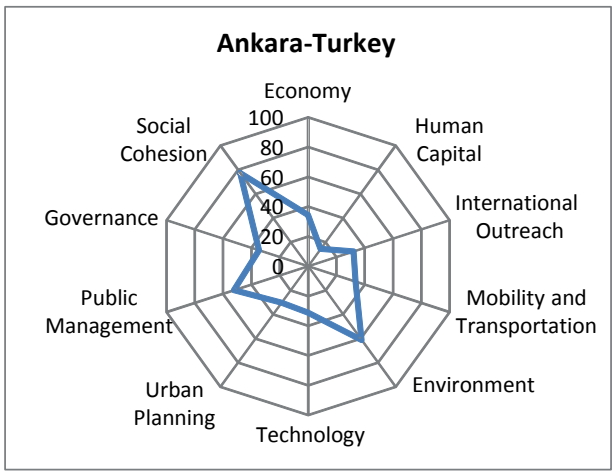
Ankara-Turkey
Economy
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International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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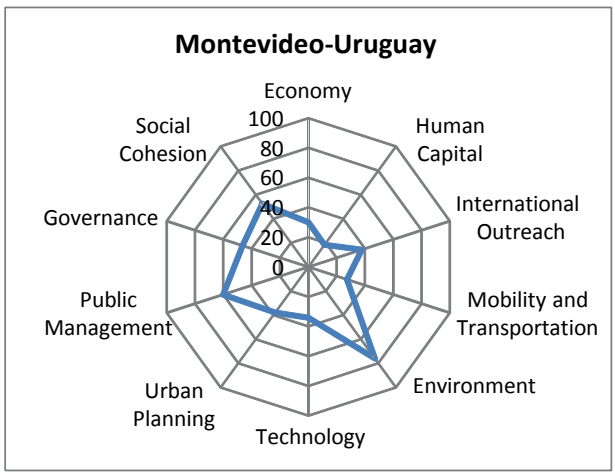
Montevideo-Uruguay
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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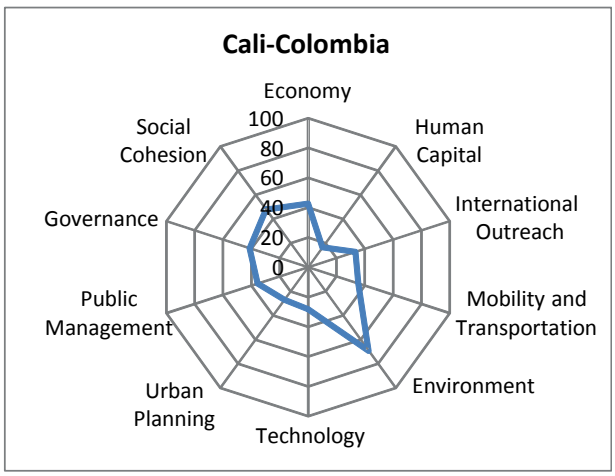
Cali-Colombia
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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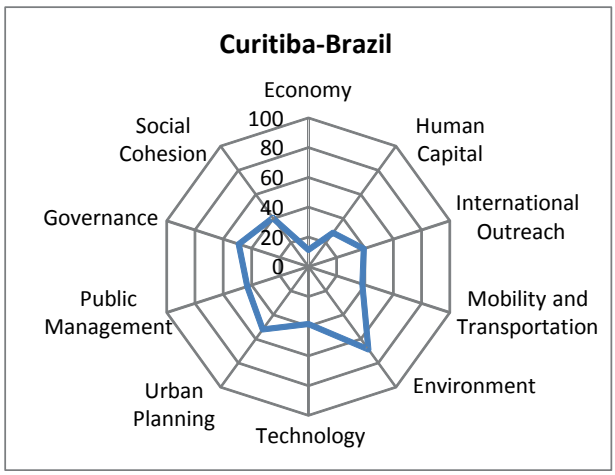
Curitiba-Brazil
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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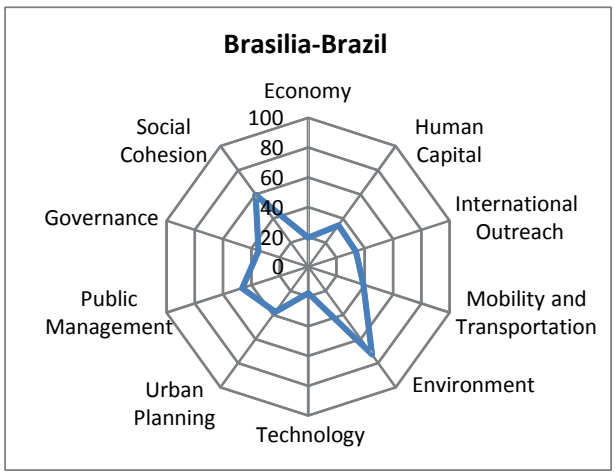
Brasilia-Brazil
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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Guadalajara-Mexico
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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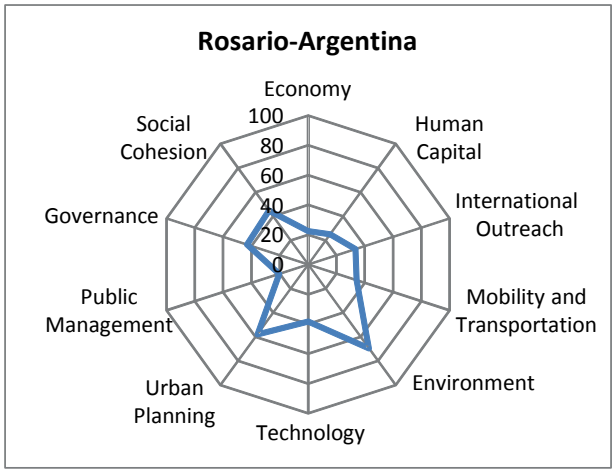
Rosario-Argentina
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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Saint Petersburg-Russia
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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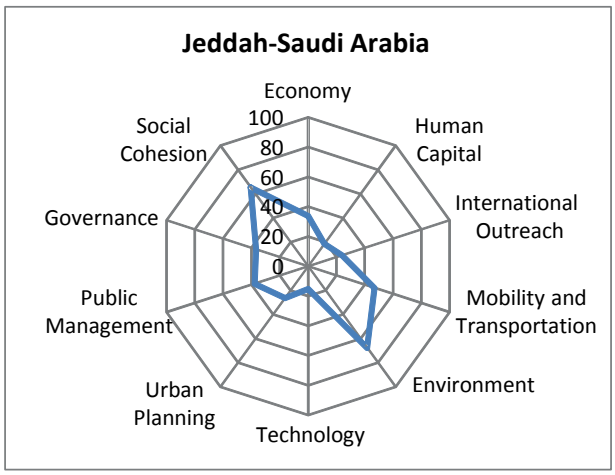
Jeddah-Saudi Arabia
Economy
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International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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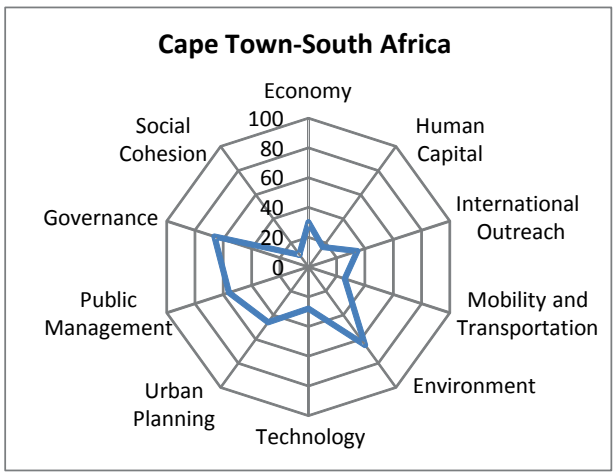
Cape Town-South Africa
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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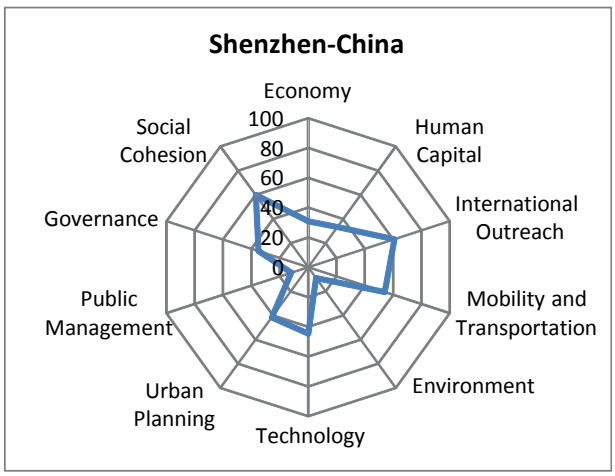
Shenzhen-China
Economy
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International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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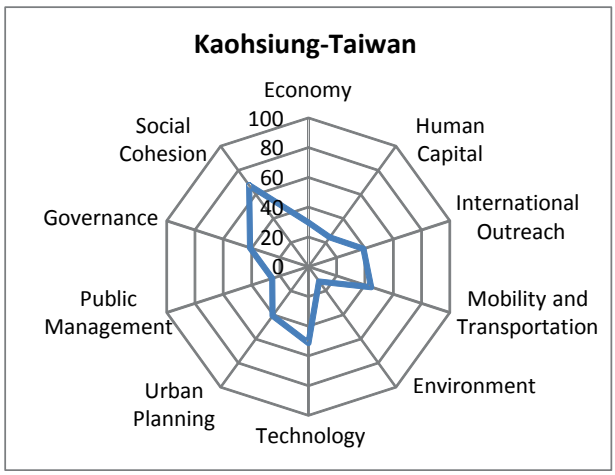
Kaohsiung-Taiwan
Economy
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Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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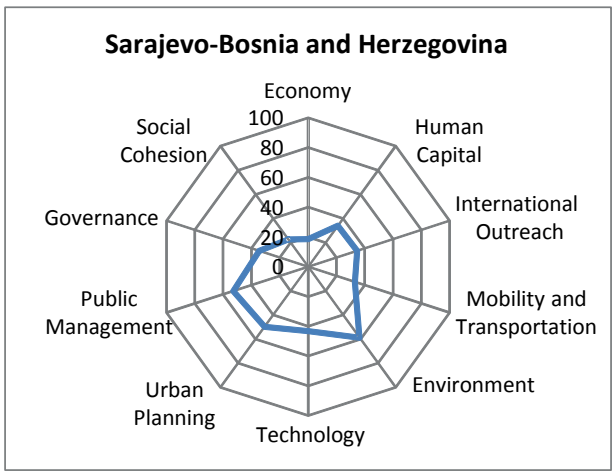
Sarajevo-Bosnia and Herzegovina
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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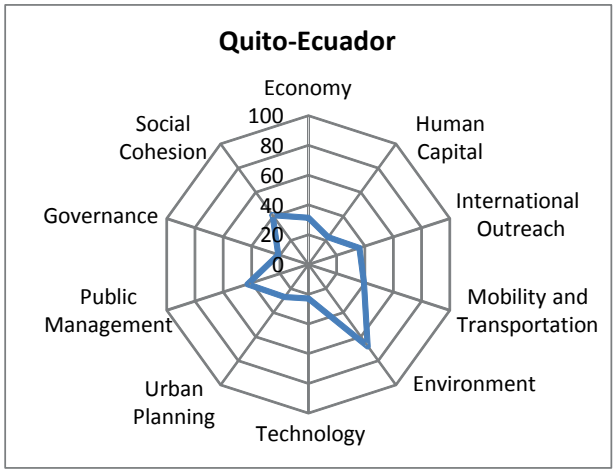
Quito-Ecuador
Economy
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International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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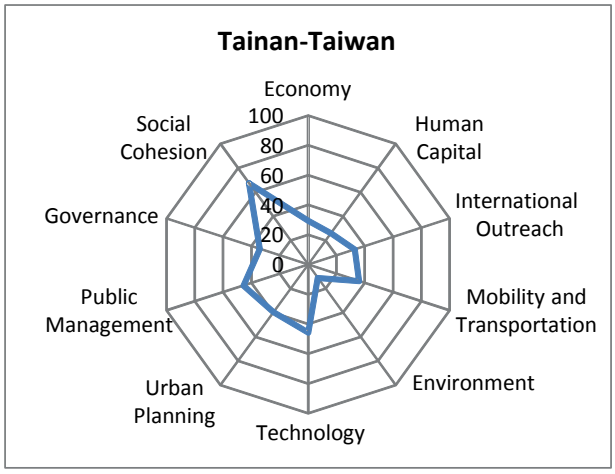
Tainan-Taiwan
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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Jakarta-Indonesia
Economy
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International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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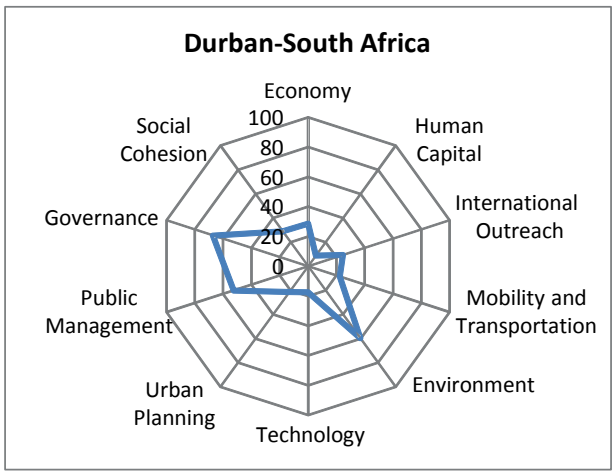
Durban-South Africa
Economy
Human Capital
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Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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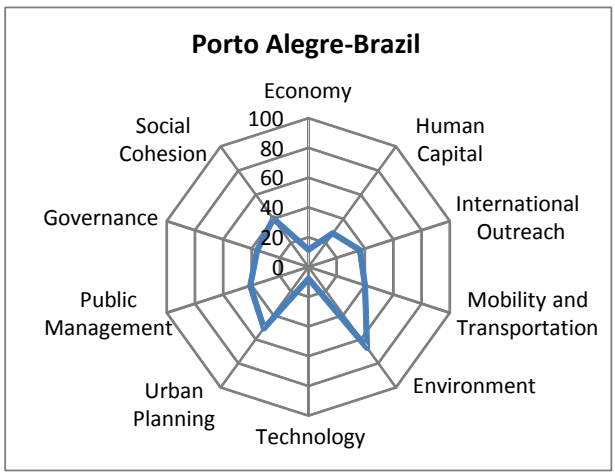
Porto Alegre-Brazil
Economy
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International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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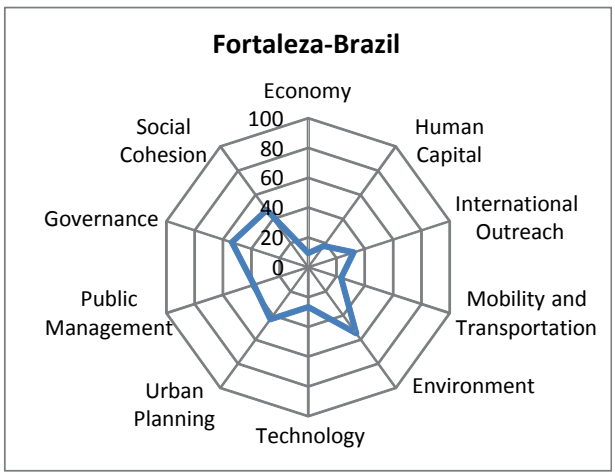
Fortaleza-Brazil
Economy
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International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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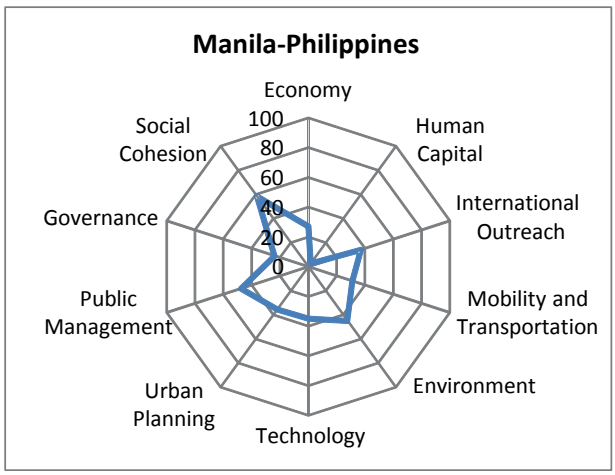
Manila-Philippines
Economy
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International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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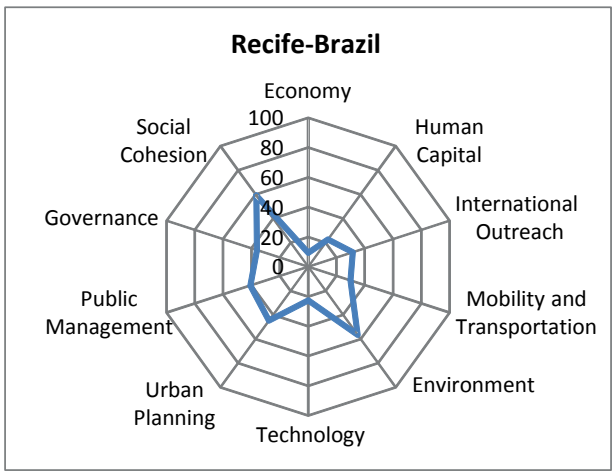
Recife-Brazil
Economy
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International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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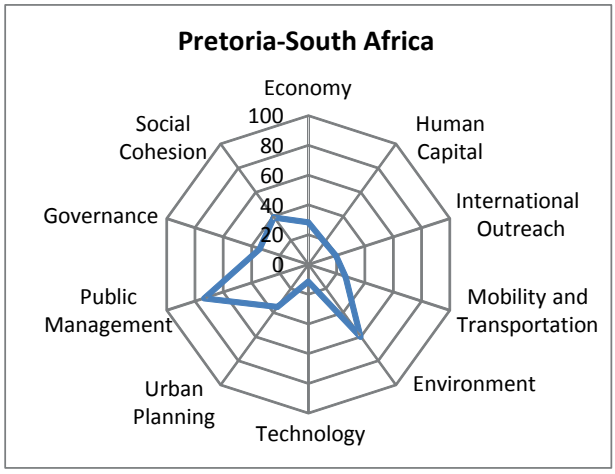
Pretoria-South Africa
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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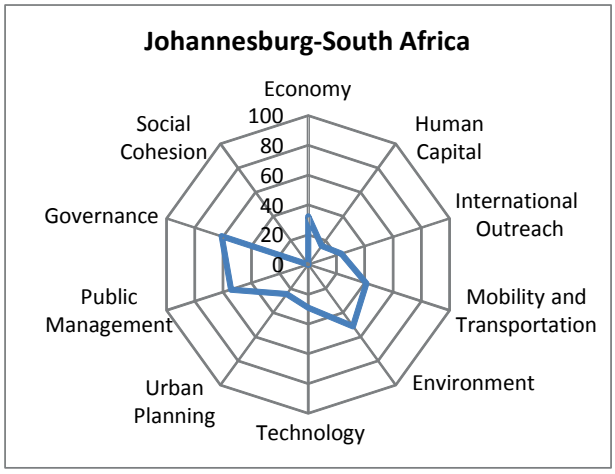
Johannesburg-South Africa
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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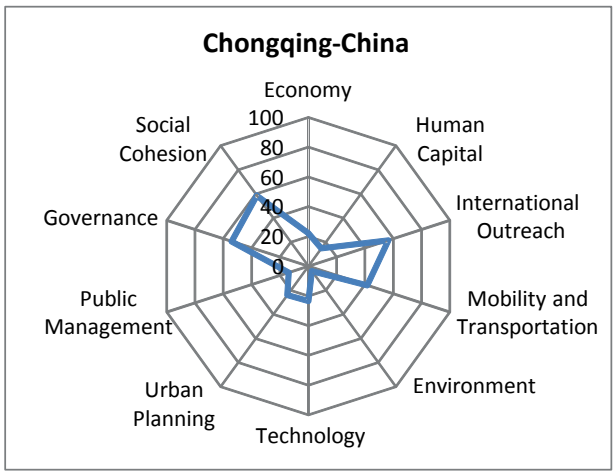
Chongqing-China
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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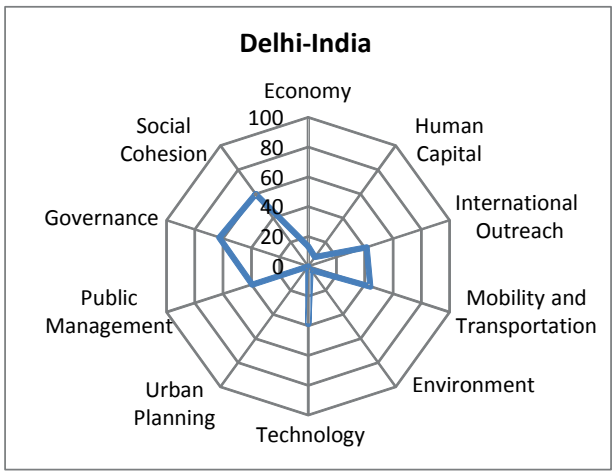
Delhi-India
Economy
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International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
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Social Cohesion
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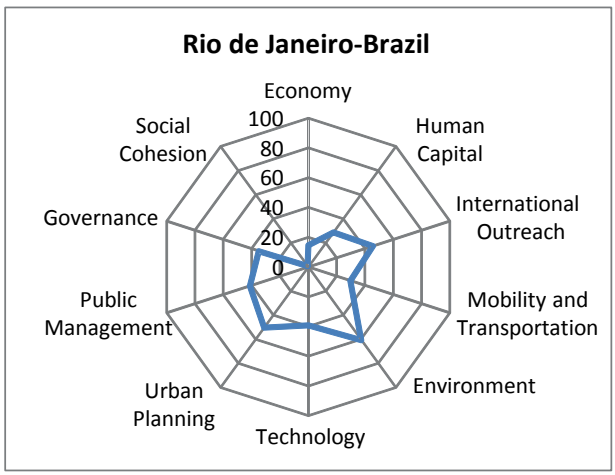
Rio de Janeiro-Brazil
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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Salvador-Brazil
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
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Social Cohesion
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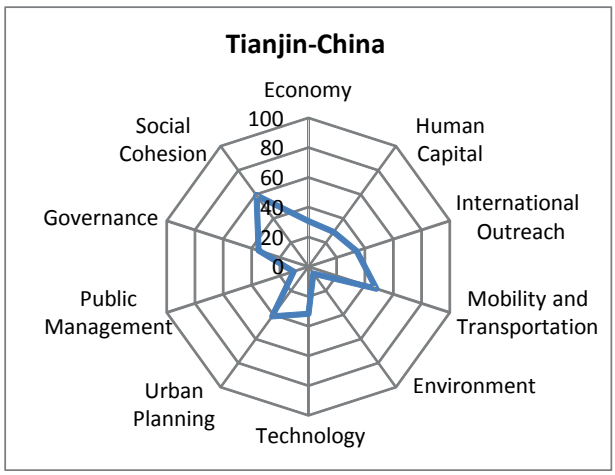
Tianjin-China
Economy
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International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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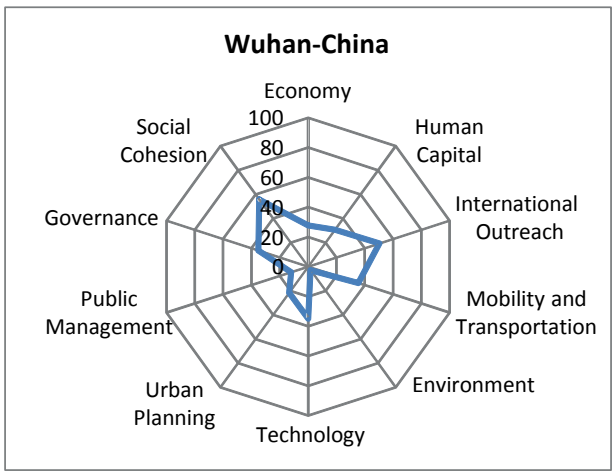
Wuhan-China
Economy
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International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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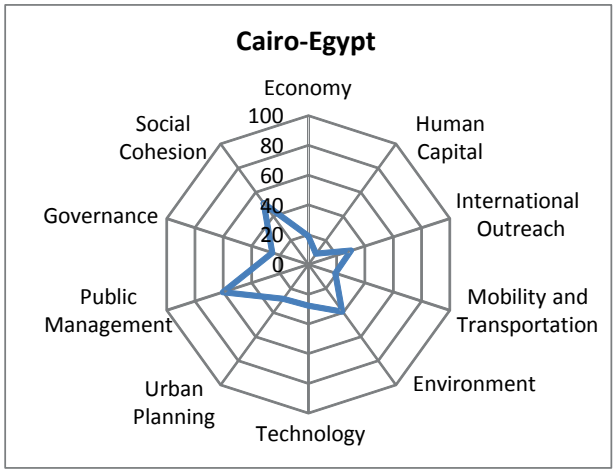
Cairo-Egypt
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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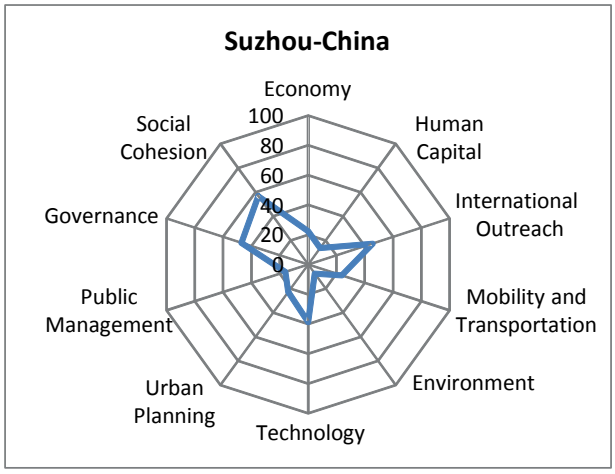
Suzhou-China
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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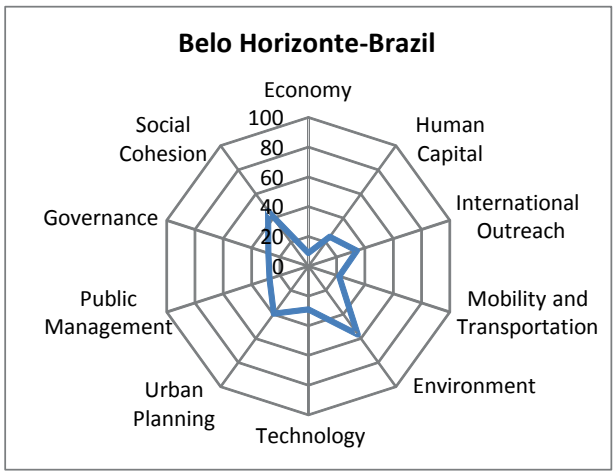
Belo Horizonte-Brazil
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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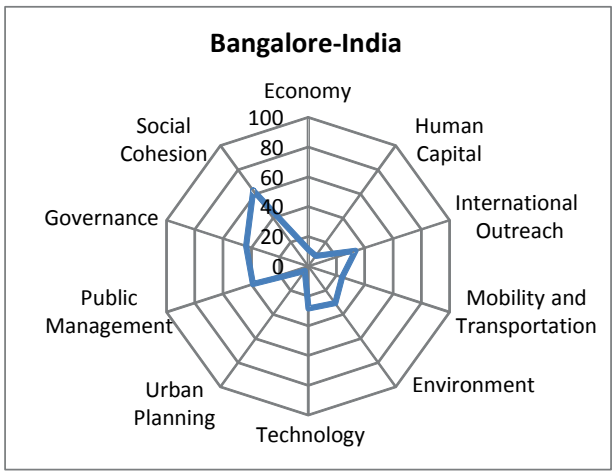
Bangalore-India
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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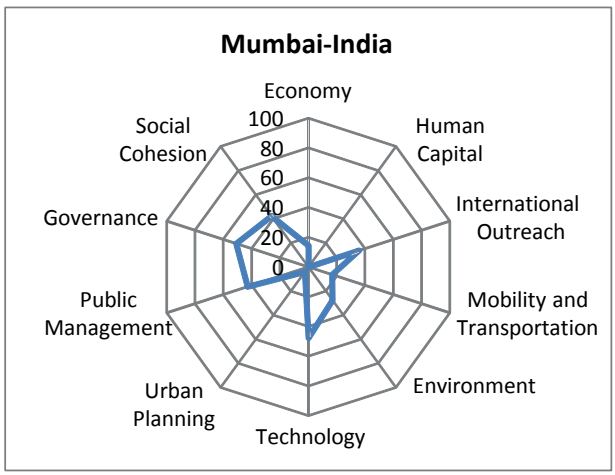
Mumbai-India
Economy
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International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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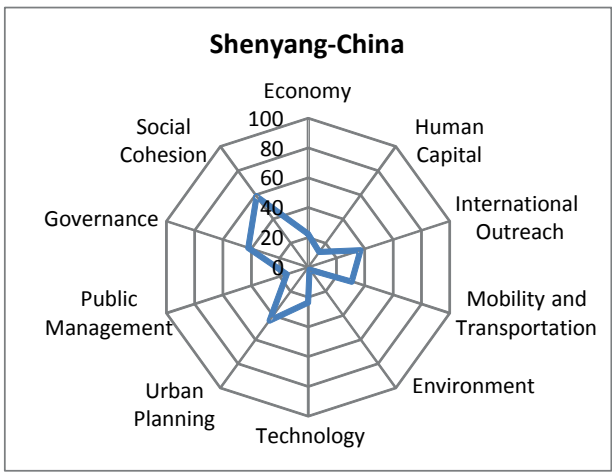
Shenyang-China
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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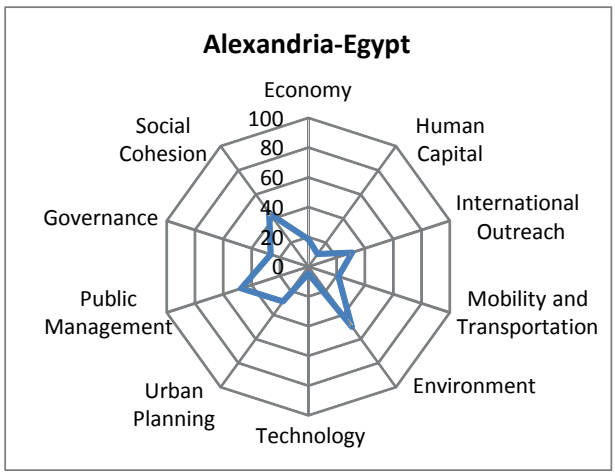
Alexandria-Egypt
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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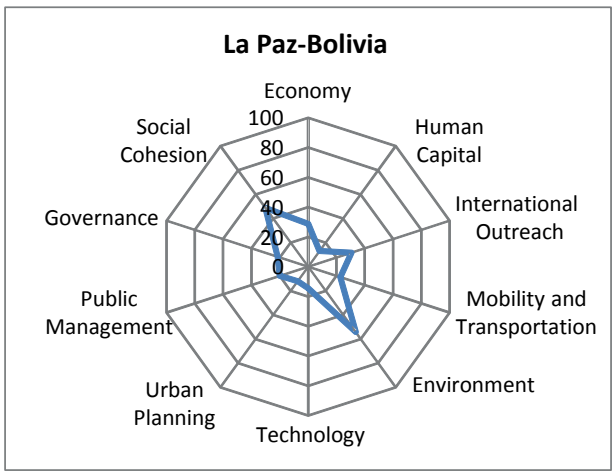
La Paz-Bolivia
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
100
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Santo Domingo-Dominican Republic
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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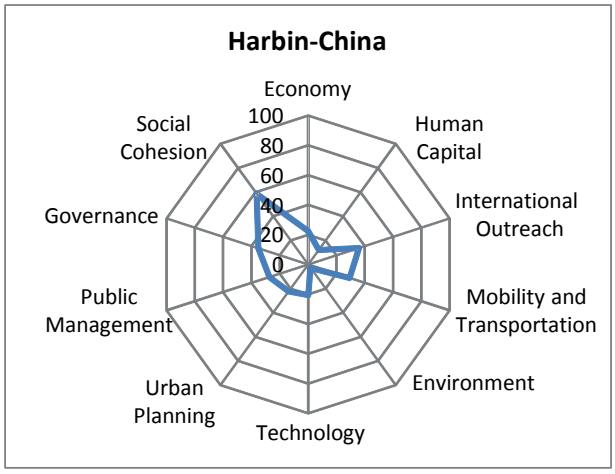
Harbin-China
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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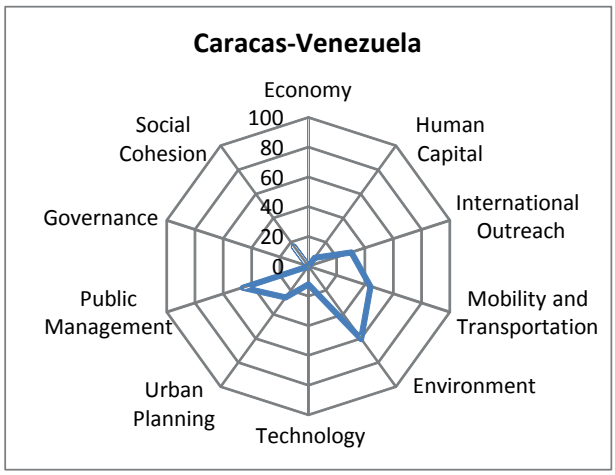
Caracas-Venezuela
Economy
Human Capital
International Outreach
Mobility and Transportation
Environment
Technology
Urban Planning
Public Management
Governance
Social Cohesion
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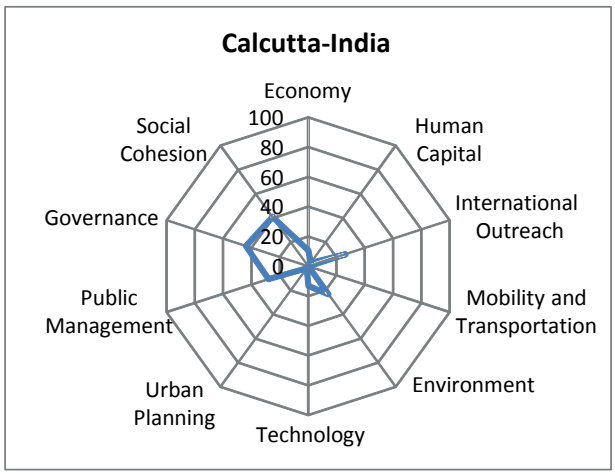
Calcutta-India
Economy
Human Capital
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28023 Madrid, Spain
(+34) 91 211 30 00

New York
165 W. 57th Street
New York,
NY 10019-2201 USA
(+1) 646 346 8850

Munich
Maria-Theresia-Straße 15
81675 Munich, Germany
(+49) 89 24 20 97 90

Sao Paulo
Rua Martiniano de
Carvalho, 573
Bela Vista
01321001 Sao Paulo,
Brazil
(+55) 11 3177 8221