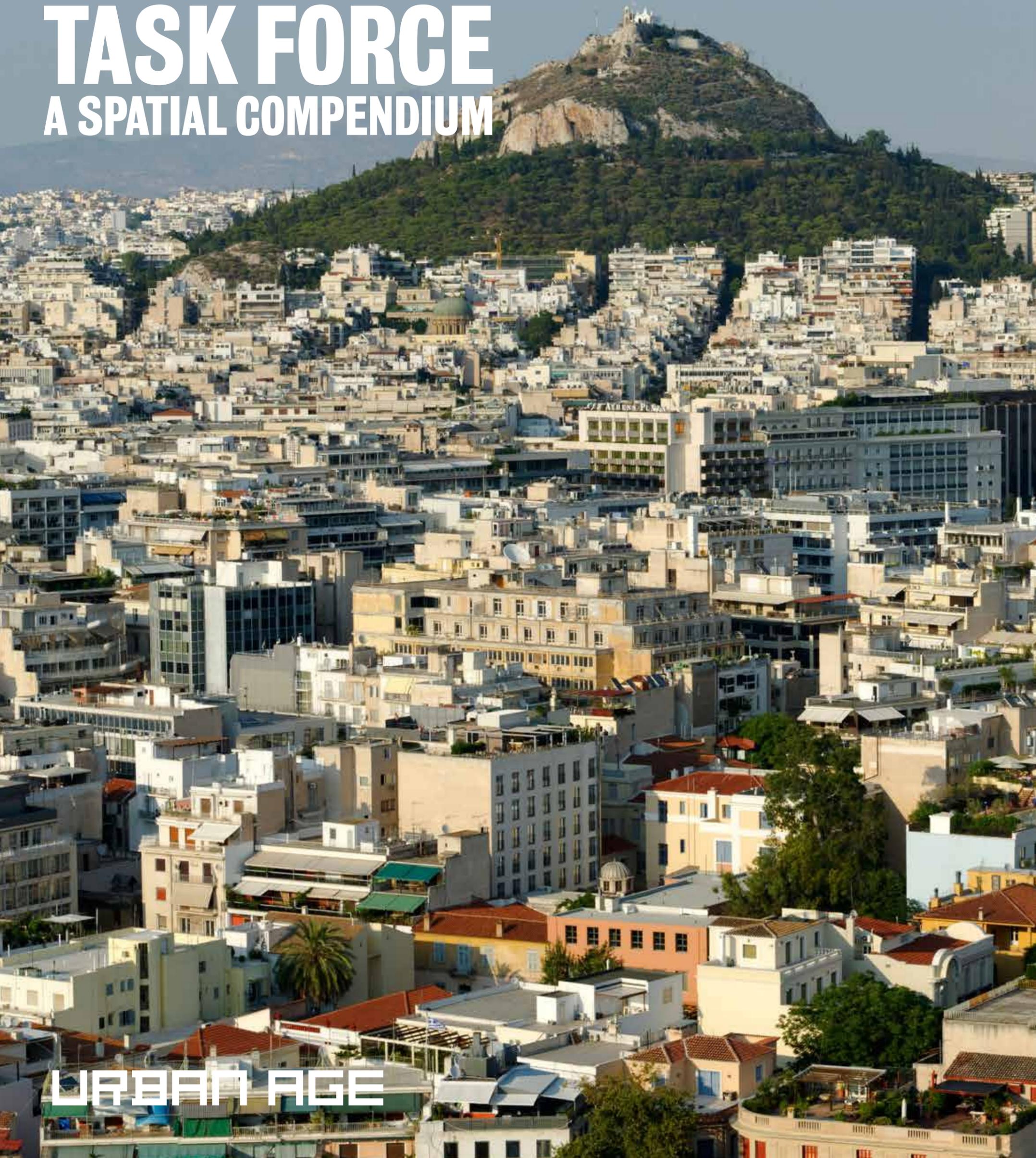


ATHENS URBAN AGE TASK FORCE A SPATIAL COMPENDIUM



URBAN AGE

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ATHENS URBAN AGE TASK FORCE ORGANISED BY LSE CITIES AT THE LONDON SCHOOL OF ECONOMICS AND THE ALFRED HERRHAUSEN GESELLSCHAFT

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Front cover image: Lycabettus Hill, Athens
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FOREWORD

LSE Cities at the London School of Economics and Political Science and the Alfred Herrhausen Gesellschaft have jointly organised the Urban Age programme since 2004. What started as an international investigation of cities has developed into a comprehensive programme of research, engagement and collaboration with urban leaders and city administrations across the world. Our core interest has been understanding the connections between the physical world and its social and environmental impacts, with an increasingly strong focus on innovations in urban governance and policy-making.

Over this period, Athens has experienced a number of tumultuous changes and is now re-investing in its future. This is why the Urban Age Task Force – a two-year initiative started in 2020 – was established with the City of Athens to better understand the city’s spatial and social dynamics, and to exchange knowledge and best practice on how to make the city more liveable and sustainable.

This spatial compendium contains an in-depth analysis of Athens’ unique DNA. It compares its urban structure with other global cities and provides new insights into its metropolitan and local spatial, social, economic and environmental attributes.

The publication is being launched to coincide with the Athens Urban Age Forum, which completes a series of workshops between urban experts and policymakers from Athens, Paris, London, Barcelona, Milan and Vienna – cities that are at the vanguard of urban policy innovation and practice in the fields of sustainable mobility, public space and liveability.

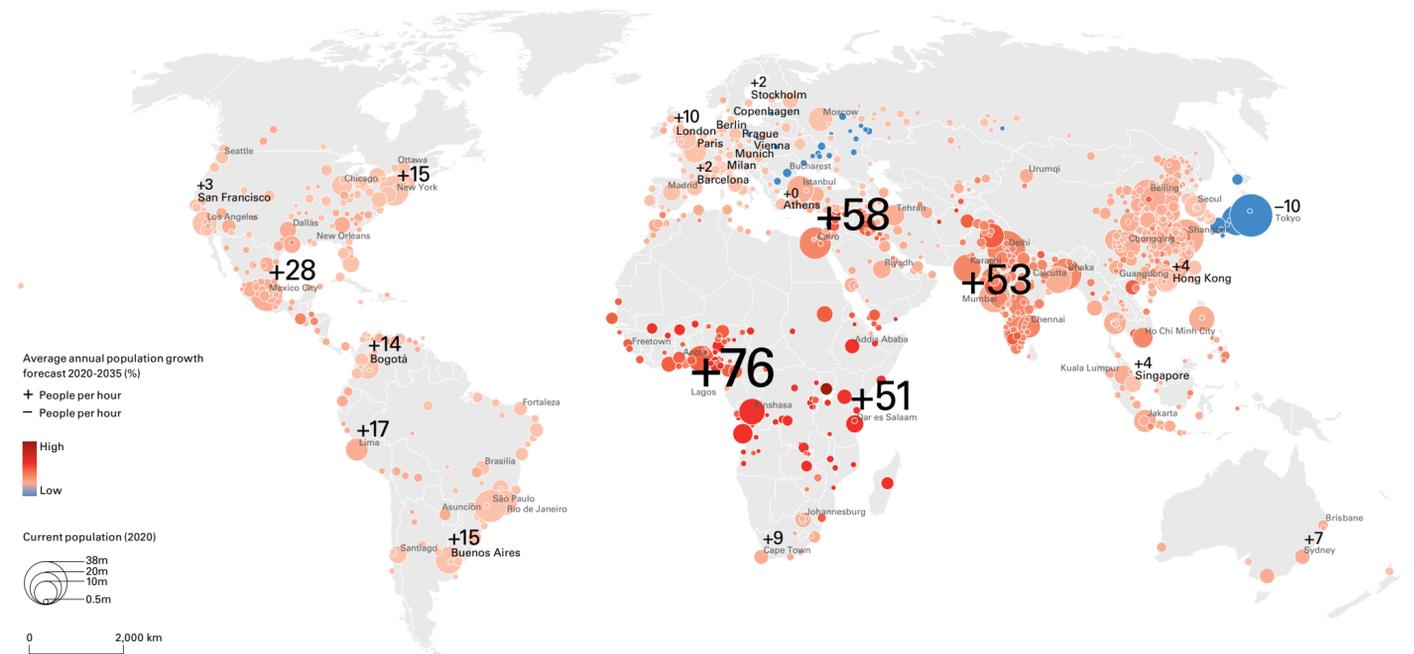
As one of the densest cities of Europe, and one which experienced rapid urbanisation after World War II, Athens has undergone a number of shocks and its population has declined. The extreme compact urban form poses significant challenges to transport mobility and quality of the environment. Its poli-katikia apartment buildings form a homogenous concrete mass of ageing building stock, with a relatively low level of open and green spaces within the city boundaries, which exacerbates the urban heat island effect and the liveability of the inner city.

In the current post-pandemic phase, the city is making new investments in its urban infrastructure and public realm to improve quality of life and reverse population decline. It is our hope that the work of the Athens Urban Age Task Force will contribute to this urban renaissance.

Ricky Burdett, Director, LSE Cities

Anna Herrhausen, Executive Director,
 Alfred Herrhausen Gesellschaft

WHERE CITIES ARE GROWING 2020–2035



COMPARING CITIES

The Urban Age has assembled data comparing Athens to 15 other cities in Europe and across the globe. Indicators cover a range of demographic, spatial, social, economic and environmental measures providing an overview of city-wide performance – not a ranking – based on information principally gathered prior to the COVID-19 pandemic.

Using statistics from the UN World Urbanization Prospects, Athens reveals a flat growth curve (after a period of negative growth), like other European cities including Berlin and Milan (0.1%–0.2%), lower than Stockholm and London. By contrast the Colombian city of Bogotá has the highest growth rate at 1%.

The City of Athens is the smallest in the sample at

38.9 km², with over 660,000 people living within a much wider metropolitan region of 3.8 million people (based on data from the last available census of 2011), with the second highest density in Europe (after central Paris). Athens' administrative area is very compact with 16,615 people/km², three times higher than more dispersed cities like London (4,697 people/km²) and five times higher than Berlin (3,105 people/km²). Athens' population swells with 6.4 million international visitors a year (which is still only one-third of the annual visitors to London, Paris and Singapore), with consequent stress on urban infrastructure and housing stock, including Airbnb rentals.

While some Latin American cities are expected to

experience a stronger economic growth in the coming decades, Bogotá and Buenos Aires (at US\$17,497 and US\$23,606 GDP per capita) still earn less than the average for Athenians, who at US\$32,484 are the lowest earners in Europe and also earn considerably less than their counterparts in Singapore (US\$66,864) or San Francisco (US\$72,390). The recent economic crisis has hit Athens hard; unemployment increased significantly, but it has now settled at 10.6% in the Attica Region.

European cities including Athens, Barcelona, Berlin and Munich have a relatively equitable income distribution. Despite high rates of unemployment, Athens is in fact one of the least unequal cities (GINI 0.29), while North and

South American and Asian cities have more extreme levels of inequality (with higher GINI indices).

Although Athens is investing in sustainable transport, car ownership remains the highest of the sample at 799/1,000 persons, followed by Milan and Prague, while the residents of the compact Asian cities of Hong Kong and Singapore own fewer cars at 77 and 157 cars/1,000 persons respectively. Only 11% and 17% of daily trips are made by car in Paris and Barcelona, while in Athens recent data suggests that 30% take cars to work but lose more time in rush hour than any other city except for Bogotá.

While more than half of trips in Athens are made by public transport (52%), active mobility (walking and cycling)

remains low, reflecting its topography and limited cycling infrastructure which is only 2.6 km, in comparison to Paris, which has expanded significantly and has 730 km. Mass transport networks in Barcelona and Milan are more than double the length of Athens', while Paris, a dense city like Athens, has five times more (1,238 km).

Motorisation rates also impact on the levels of pollutants such as CO₂. Paris, with over half of the total number of residents walking or cycling, has one of the lowest annual amounts of CO₂ emissions (2.3 tons per capita), while in Athens the level is two times higher (5 tons per capita). Many other European cities present lower values than 3 tons per capita CO₂ emissions, including Stockholm, Copenhagen,

Barcelona and Vienna. Green spaces in cities are instrumental in mitigating the impacts of air pollution, the urban heat island effect and living at higher densities. The City of Athens is currently exploring ways of improving its provision of green space, which at 6.63 m² per person is lower than most European cities – a third of London's. Stockholm (41.6 m² per person) and Prague (35.7 m² per person) are the greenest cities in Europe, while the high-density Asian cities of Hong Kong (34.6 m² per person) and Singapore (30 m² per person) reveal a good balance between the built environment and nature in the city.



	Current population in the city (millions)	Total population within region/metropolitan area (millions)	Average annual city population growth 2020-2035 (%)	Population growth per hour (2020-2035)	Average density inside admin area (pers/km ²)	City area (km ²)	Total international visitors (millions)	Current older population (% of total population)	GDP per capita, 2014 (PPP, \$) (thousands)	Unemployment rate (%)	Income inequality (GINI Index)	Life expectancy (years)	Voter turnout in the last local elections (%)	Percentage of trips made by public transport	Percentage of trips made by walking and cycling	Percentage of trips made by car	Car ownership rate (per 1,000 pers)	Time lost in rush hour per year (hours/TomTom)	Rail Network System Length (km)	Cycle Network System Length (km)	Annual CO ₂ emissions (tons per capita)	Daily water consumption (litres per capita)	Green space in the city (m ² /pers)
ATHENS	0.66 <small>2011</small>	3.8 <small>2011</small>	0 <small>2018</small>	0 <small>2018</small>	16,615 <small>GIS</small>	38.9 <small>2020</small>	6.4 <small>2019</small>	19 <small>2011</small>	32 <small>2014</small>	10.6 <small>2021</small>	0.29 <small>2016</small>	81.3 <small>2018</small>	33.4 <small>2019</small>	52.0 <small>2018</small>	12.4 <small>2018</small>	30.4 <small>2018</small>	799 <small>2019</small>	167 <small>2020</small>	243 <small>GIS</small>	2.6 <small>2021</small>	5.0 <small>2018</small>	143 <small>2019</small>	6.6 <small>2019</small>
BARCELONA	1.60 <small>2018</small>	5.0 <small>2018</small>	0.3 <small>2018</small>	2.2 <small>2018</small>	11,716 <small>GIS</small>	102 <small>GIS</small>	7.0 <small>2019</small>	22 <small>2018</small>	36 <small>2014</small>	10.2 <small>2019</small>	0.29 <small>2017</small>	83.6 <small>2018</small>	66.2 <small>2019</small>	40.1 <small>2017</small>	35.3 <small>2017</small>	16.6 <small>2017</small>	273 <small>2018</small>	128 <small>2020</small>	597 <small>GIS</small>	211 <small>2019</small>	2.1 <small>2017</small>	107 <small>2016</small>	3.9 <small>2019</small>
BERLIN	3.80 <small>2019</small>	5.3 <small>2018</small>	0.1 <small>2018</small>	0.6 <small>2018</small>	3,105 <small>GIS</small>	891 <small>GIS</small>	6.2 <small>2019</small>	19 <small>2019</small>	36 <small>2014</small>	6.3 <small>2018</small>	0.29 <small>2013</small>	81.2 <small>2017</small>	66.9 <small>2016</small>	27.0 <small>2017</small>	43 <small>2017</small>	30 <small>2017</small>	339 <small>2012</small>	124 <small>2020</small>	1,296 <small>GIS</small>	760 <small>2009</small>	5.1 <small>2017</small>	112 <small>2008</small>	22.7 <small>2019</small>
COPENHAGEN	0.60 <small>2019</small>	1.9 <small>2018</small>	0.6 <small>2018</small>	1.0 <small>2018</small>	4,788 <small>GIS</small>	102 <small>GIS</small>	3.2 <small>2019</small>	14 <small>2019</small>	42 <small>2014</small>	5.5 <small>2018</small>	0.34 <small>2018</small>	80.0 <small>2017</small>	61.9 <small>2017</small>	19.0 <small>2018</small>	49.0 <small>2018</small>	32.0 <small>2018</small>	262 <small>2020</small>	104 <small>2020</small>	625 <small>GIS</small>	385 <small>2019</small>	2.5 <small>2018</small>	104 <small>2012</small>	25.3 <small>2019</small>
LONDON	9.10 <small>2019</small>	12.4 <small>2018</small>	0.8 <small>2018</small>	9.5 <small>2018</small>	4,697 <small>GIS</small>	1595 <small>GIS</small>	19.6 <small>2019</small>	10 <small>2011</small>	57 <small>2014</small>	4.8 <small>2019</small>	0.39 <small>2011</small>	82.9 <small>2017</small>	38.9 <small>2018</small>	37 <small>2019</small>	27 <small>2019</small>	35 <small>2019</small>	307 <small>2020</small>	149 <small>2020</small>	1,969 <small>GIS</small>	362 <small>2020</small>	3.6 <small>2018</small>	164 <small>2013</small>	19.2 <small>2019</small>
MILAN	1.40 <small>2019</small>	5.1 <small>2018</small>	0.2 <small>2018</small>	0.8 <small>2018</small>	5,903 <small>GIS</small>	182 <small>GIS</small>	6.6 <small>2019</small>	22 <small>2011</small>	41 <small>2014</small>	7.6 <small>2018</small>	0.31 <small>2015</small>	83.3 <small>2017</small>	58.7 <small>2019</small>	42.3 <small>2019</small>	13.2 <small>2019</small>	39.3 <small>2019</small>	570 <small>2012</small>	149 <small>2020</small>	611 <small>GIS</small>	160 <small>2013</small>	4.8 <small>2013</small>	228 <small>2011</small>	13.8 <small>2019</small>
MUNICH	1.50 <small>2019</small>	2.9 <small>2018</small>	0.4 <small>2018</small>	0.7 <small>2018</small>	3,931 <small>GIS</small>	311 <small>GIS</small>	4.2 <small>2019</small>	17 <small>2019</small>	56 <small>2014</small>	3.1 <small>2018</small>	0.29 <small>2013</small>	83.4 <small>2017</small>	75.7 <small>2018</small>	24 <small>2017</small>	42 <small>2017</small>	34 <small>2017</small>	471 <small>2019</small>	131 <small>2020</small>	725 <small>GIS</small>	943 <small>2018</small>	5.9 <small>2017</small>	146 <small>2013</small>	22.0 <small>2019</small>
PARIS	9.80 <small>2017</small>	12.9 <small>2018</small>	0.6 <small>2018</small>	8.0 <small>2018</small>	18,269 <small>GIS</small>	105 <small>GIS</small>	19.1 <small>2019</small>	15 <small>2017</small>	57 <small>2014</small>	11.0 <small>2019</small>	0.33 <small>2015</small>	84.2 <small>2017</small>	42.3 <small>2020</small>	32.0 <small>2019</small>	57.0 <small>2019</small>	11.0 <small>2019</small>	414 <small>2012</small>	163 <small>2020</small>	1,238 <small>GIS</small>	730 <small>2013</small>	2.3 <small>2014</small>	300 <small>2009</small>	9.8 <small>2019</small>
PRAGUE	1.30 <small>2017</small>	2.2 <small>2018</small>	0.2 <small>2018</small>	0.4 <small>2018</small>	2,216 <small>GIS</small>	496 <small>GIS</small>	9.2 <small>2019</small>	19 <small>2017</small>	47 <small>2014</small>	1.7 <small>2018</small>	0.30 <small>2013</small>	80.7 <small>2018</small>	29.5 <small>2019</small>	47.0 <small>2016</small>	32.0 <small>2016</small>	20.0 <small>2016</small>	538 <small>2012</small>	128 <small>2020</small>	757 <small>GIS</small>	350 <small>2009</small>	6.5 <small>2017</small>	232 <small>2009</small>	35.7 <small>2019</small>
STOCKHOLM	0.90 <small>2020</small>	2.3 <small>2018</small>	0.9 <small>2018</small>	1.8 <small>2018</small>	3,317 <small>GIS</small>	215 <small>GIS</small>	2.7 <small>2019</small>	16 <small>2019</small>	56 <small>2014</small>	6.0 <small>2019</small>	0.32 <small>2018</small>	83.1 <small>2017</small>	82.4 <small>2018</small>	29.0 <small>2019</small>	28.0 <small>2019</small>	41.0 <small>2019</small>	361 <small>2019</small>	133 <small>2020</small>	397 <small>GIS</small>	760 <small>2013</small>	2.7 <small>2014</small>	95 <small>2015</small>	41.6 <small>2019</small>
VIENNA	1.92 <small>2021</small>	2.8 <small>2021</small>	0.7 <small>2018</small>	1.7 <small>2018</small>	3,467 <small>GIS</small>	415 <small>2022</small>	8.0 <small>2019</small>	17 <small>2021</small>	49 <small>2014</small>	10.7 <small>2022</small>	0.4 <small>2019</small>	80.7 <small>2011</small>	65.3 <small>2020</small>	38.0 <small>2019</small>	37 <small>2019</small>	25 <small>2019</small>	371 <small>2021</small>	105 <small>2021</small>	515 <small>2021</small>	1,661 <small>2021</small>	1.8 <small>2021</small>	130 <small>2021</small>	15 <small>2021</small>
BOGOTA	8.30 <small>2019</small>	9.2 <small>2018</small>	1.0 <small>2018</small>	13.5 <small>2018</small>	7,148 <small>GIS</small>	1,634 <small>GIS</small>	1.3 <small>2016</small>	9 <small>2019</small>	17 <small>2014</small>	11.6 <small>2019</small>	0.50 <small>2018</small>	78.9 <small>2017</small>	55.0 <small>2019</small>	47.9 <small>2019</small>	30.5 <small>2019</small>	14.9 <small>2019</small>	148 <small>2019</small>	230 <small>2020</small>	N.A. <small>GIS</small>	476 <small>2018</small>	1.6 <small>2015</small>	130 <small>2010</small>	18.9 <small>2019</small>
BUENOS AIRES	3.10 <small>2019</small>	17.5 <small>2020</small>	0.8 <small>2018</small>	15 <small>2018</small>	12,109 <small>GIS</small>	204 <small>GIS</small>	2.8 <small>2019</small>	15 <small>2010</small>	24 <small>2014</small>	8.7 <small>2019</small>	0.50 <small>2010</small>	77.2 <small>2010</small>	67.1 <small>2019</small>	77.0 <small>2017</small>	3.0 <small>2017</small>	16.0 <small>2017</small>	395 <small>2012</small>	133 <small>2020</small>	565 <small>GIS</small>	300 <small>2013</small>	6.5 <small>2014</small>	669 <small>2008</small>	10.1 <small>2019</small>
HONG KONG	7.50 <small>2018</small>	7.5 <small>2019</small>	0.5 <small>2018</small>	4.4 <small>2018</small>	6,456 <small>GIS</small>	1,098 <small>GIS</small>	26.7 <small>2019</small>	16 <small>2016</small>	57 <small>2014</small>	2.8 <small>2019</small>	0.47 <small>2016</small>	85.3 <small>2019</small>	71.2 <small>2019</small>	82.0 <small>2016</small>	10.0 <small>2016</small>	7.0 <small>2016</small>	77 <small>2019</small>	131 <small>2020</small>	244 <small>GIS</small>	225 <small>2020</small>	5.7 <small>2018</small>	130 <small>2019</small>	34.6 <small>2019</small>
SAN FRANCISCO	0.90 <small>2020</small>	6.7 <small>2018</small>	0.7 <small>2018</small>	2.6 <small>2018</small>	4,567 <small>GIS</small>	123 <small>GIS</small>	3.0 <small>2019</small>	16 <small>2019</small>	72 <small>2014</small>	2.5 <small>2019</small>	0.50 <small>2016</small>	82.1 <small>2014</small>	41.6 <small>2019</small>	30.5 <small>2019</small>	26.7 <small>2019</small>	42.7 <small>2019</small>	502 <small>2017</small>	147 <small>2020</small>	402 <small>GIS</small>	346 <small>2013</small>	6.4 <small>2016</small>	664 <small>2015</small>	24.6 <small>2019</small>
SINGAPORE	4.00 <small>2019</small>	5.9 <small>2019</small>	0.6 <small>2018</small>	4.1 <small>2018</small>	5,169 <small>GIS</small>	719 <small>GIS</small>	19.8 <small>2019</small>	14 <small>2019</small>	67 <small>2014</small>	2.2 <small>2019</small>	0.38 <small>2017</small>	83.6 <small>2019</small>	93.7 <small>2015</small>	57.0 <small>2019</small>	14 <small>2019</small>	29.0 <small>2019</small>	157 <small>2019</small>	135 <small>2020</small>	222 <small>GIS</small>	440 <small>2020</small>	8.4 <small>2018</small>	141 <small>2018</small>	30.0 <small>2019</small>

Data sources: most Athens values generously provided by the Athens Municipality. For information on sources, please contact: LSECities@lse.ac.uk. Measurements, years, and methodologies used to calculate indicator values may vary and are not always comparable.



Looking south beyond the Acropolis towards Faleron Bay and the port of Piraeus, the continuous built-up metropolitan area of Athens extends across different municipal boundaries.

© RawR / Alamy Stock Photo



As one of the densest cities in Europe, the tightly packed urban neighbourhoods in the City of Athens are defined by poli-kattika apartment buildings that reflect a degree of vertical social segregation, with more disadvantaged residents occupying the lower floors and the more affluent the upper floors.

© Dimitris K. / Alamy Stock Photo

WHERE PEOPLE LIVE

Residential density is a critical measure for understanding how people live. The diagrams below identify the number of people living in each square kilometre, represented through hexagons, of a 100 x 100-kilometre urban region. For each of the cities, a 3D representation of residential density is presented, displaying variations in density across the city and the metropolitan area (in different tones of red) and outer areas (in grey). The taller the spikes, the higher the density. Except for Athens where the last available census data (2011) was used¹, for all other cities data from the 2015 World Global Human Settlement (GHS) population grid was used to calculate residential densities.

Among the nine cities compared, Athens, with an average

density (16,615 pers/km²), emerges as the second densest city after Paris (18,269 pers/km²), illustrating the highly compact and continuous nature of their urban development with relatively low-rise buildings (under ten storeys). While the high-rise nature of Hong Kong (with residential towers of up to 30 storeys) explains its extreme peak density (106,780 pers/km²), Athens emerges as the third highest in terms of peak density (37,461 pers/km²) after Paris (38,756 pers/km²).

Berlin and London appear as relatively dispersed, lower-density cities in comparison to others in the sample. Berlin has the lowest average density levels at both city and metropolitan level with an average density of 3,105 pers/km²

inside the city, while London with 4,697 pers/km² presents clusters of high density scattered in its outer areas. In London the Green Belt acts as a containment boundary for urban expansion and with consequent lower densities in the city's immediate outskirts.

The ratio of the taller spikes to the average density in Athens is relatively low (2.3), together with Paris (2.1) and Barcelona (1.8), which is indicative of the typical European urban form composed of apartments and mansion blocks arranged along continuous streets. Other cities, with a more varied and fragmented urban structure, present much higher ratios; for example Hong Kong (16.5) and San Francisco (5.4).

The maps below illustrate the urban footprint of nine cities, showing where people live in relation to their administrative boundaries (at city, metropolitan and regional scale). Read in conjunction with the residential density diagrams, these maps offer insights on the nature and distribution of urban development and the jurisdiction of different levels of urban and regional governance.

What stands out is that over the last century the urban expansion of the Greek capital has spilled over the legislative boundaries of the City of Athens, sprawling across a much wider area within the Attica region, which is surrounded by mountains and the sea. The density diagrams demonstrate

that the city becomes more fragmented and dispersed as it extends outwards into neighbouring regional units.

As with other urban agglomerations, this mismatch between the functional metropolitan region and its governance arrangements creates challenges to developing strategies and implementing policies that can deliver sustainable change in areas of mobility, the environment and economic performance.

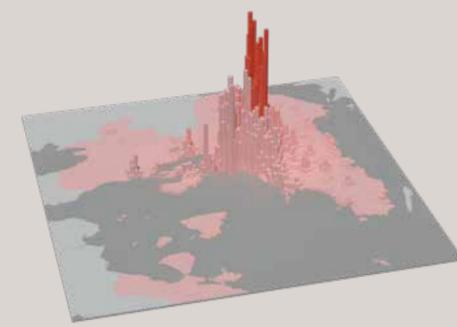
The City of Barcelona, with its dense inner city equally constrained by mountains and the sea, has experimented with new institutional arrangements to manage regional and metropolitan coordination. London has benefited

from a clear boundary that defines both a growth limit (the Green Belt) and the administrative capacity (since 2000) of the Mayor of London who controls the transport, housing, environmental and economic development agencies of a metropolitan region of nine million people.

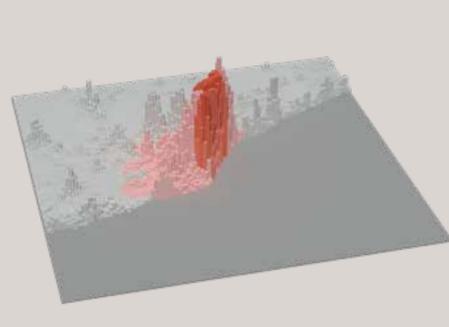
Vienna, Milan and Berlin offer alternative models of efficient metropolitan and regional governance, while Hong Kong has in recent decades effectively functioned as a city-state in charge of all planning, development and transport strategies, albeit with increasing influence from national government.



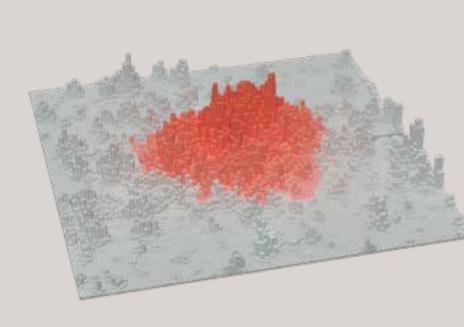
ATHENS
Peak – 37,461 pers/km² (inside admin area)



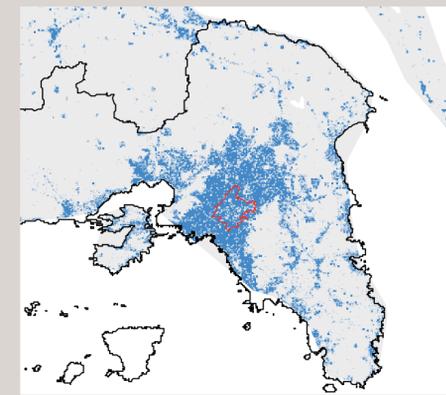
BARCELONA
Peak – 23,925 pers/km² (outside admin area)



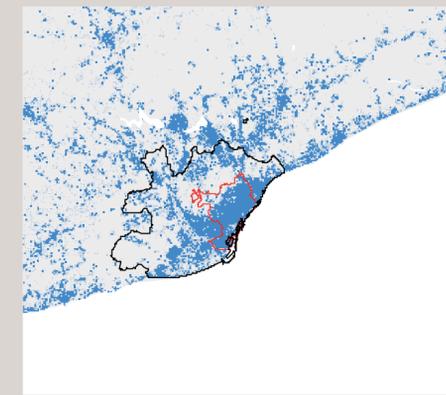
LONDON
Peak – 18,769 pers/km² (inside admin area)



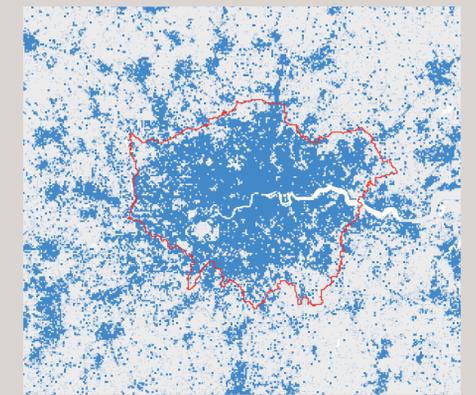
ATHENS



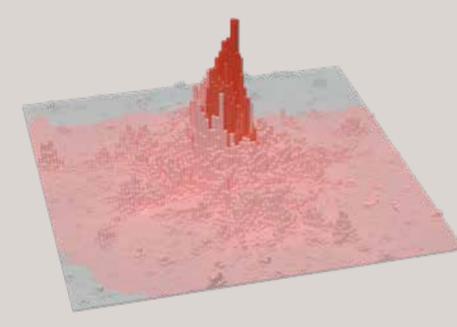
BARCELONA



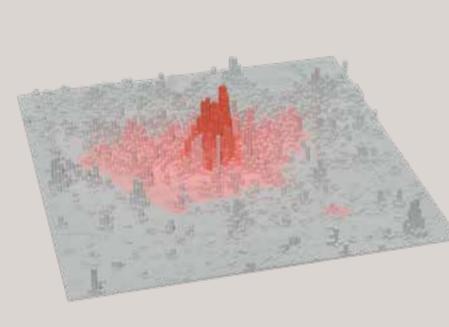
LONDON



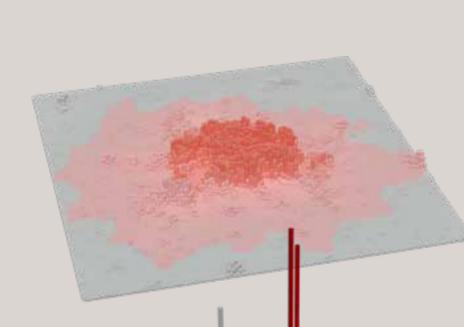
PARIS
Peak – 38,756 pers/km² (inside admin area)



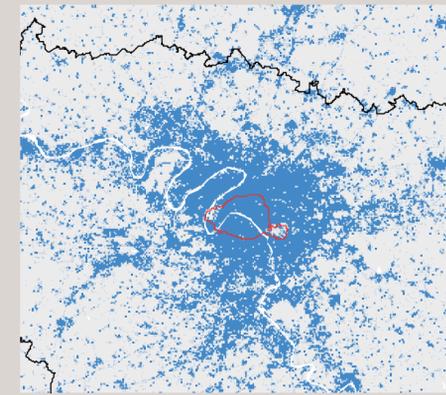
MILAN
Peak – 17,927 pers/km² (inside admin area)



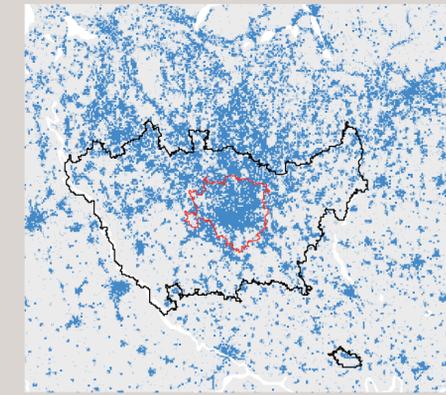
BERLIN
Peak – 7,428 pers/km² (inside admin area)



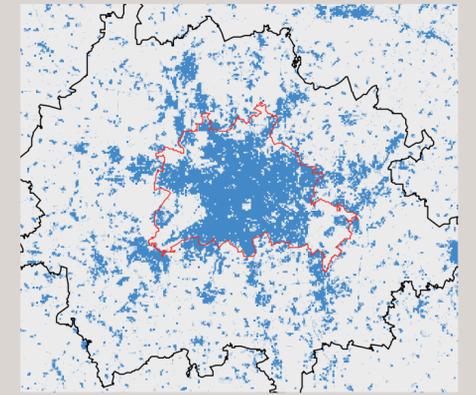
PARIS



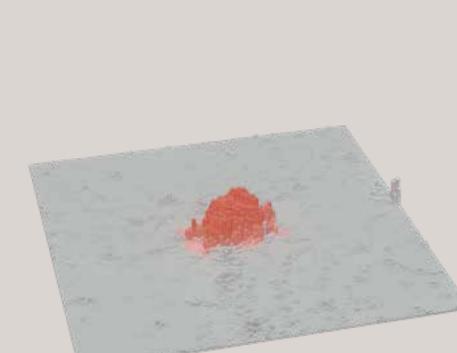
MILAN



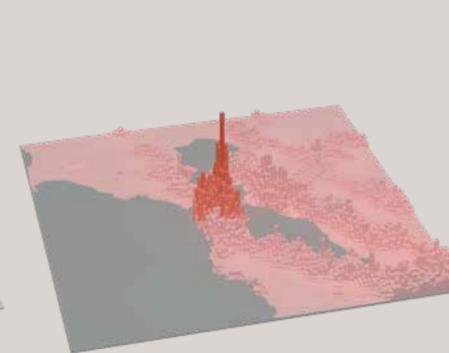
BERLIN



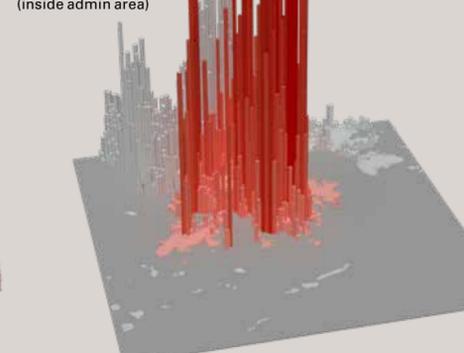
VIENNA
Peak – 8,518 pers/km² (inside admin area)



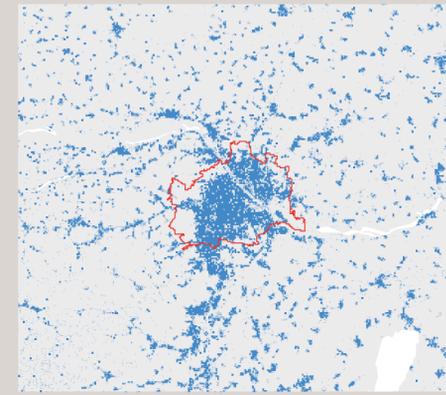
SAN FRANCISCO
Peak – 24,524 pers/km² (inside admin area)



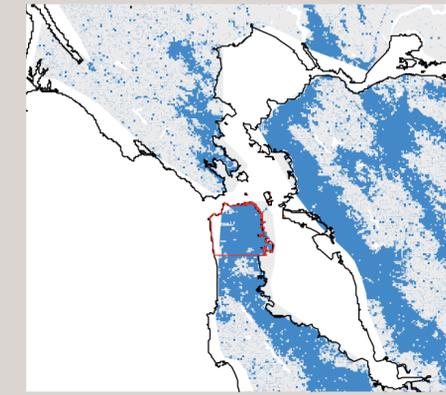
HONG KONG
Peak – 106,780 pers/km² (inside admin area)



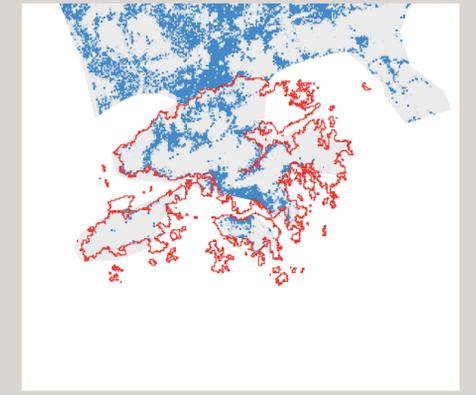
VIENNA



SAN FRANCISCO



HONG KONG



Data sources: Athens Social Atlas, based on the 2011 Census; Joint Research Centre (2015) GHS population grid, derived from GPW4, multitemporal (1975-2015); Joint Research Centre (2015) GHS built-up grid, derived from Landsat, multitemporal (1975-2015); DIVA-GIS, Athens Municipality institutional data (see acknowledgments page) and LSE Cities.

HOW PEOPLE TRAVEL

Mass public transport provides the infrastructure of connection that supports multiple dimensions of urban life at neighbourhood, metropolitan, and regional scale. Apart from contributing to productivity, competitiveness and the local economy, sustainable transport – as well as walking and cycling – is a key factor in reducing car-dependency, improving a city's environmental footprint and the well-being of its residents.

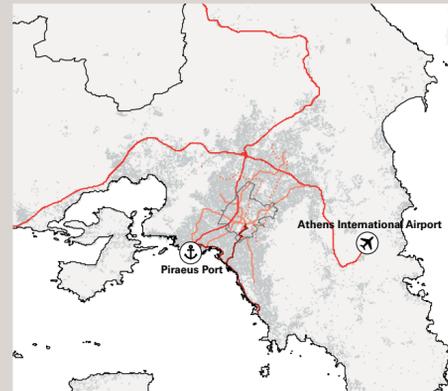
Among the nine cities, London has one of the oldest and most extensive urban and suburban rail networks in the

world (1,969 km) connecting the relatively low-density city to its wider metropolitan region. Within the same 70 x 70 km area, Athens's 243 km network is about 20% of that of Paris (1,238 km), but the city is planning to increase its capacity by at least 15%. Athens' transport network is shorter than that of other mature European cities, such as Munich (725 km), Milan (611 km) and Barcelona (597 km). Larger populations living in the higher-density cities of Singapore and Hong Kong are better served by shorter but highly efficient mass transport systems.



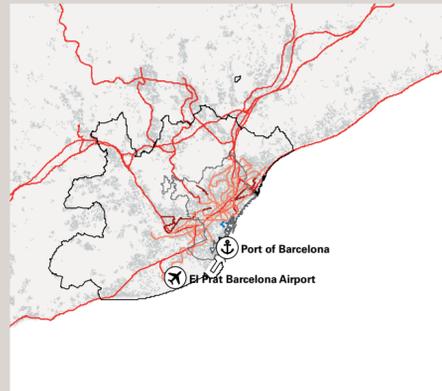
ATHENS

Rail Network System Length 243 km



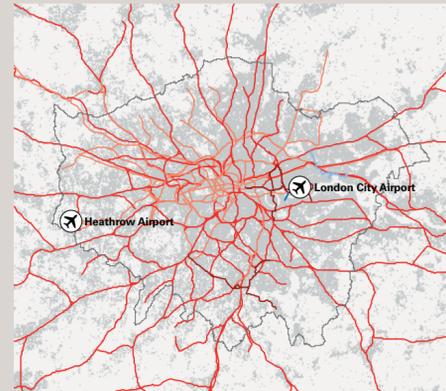
BARCELONA

Rail Network System Length 597 km



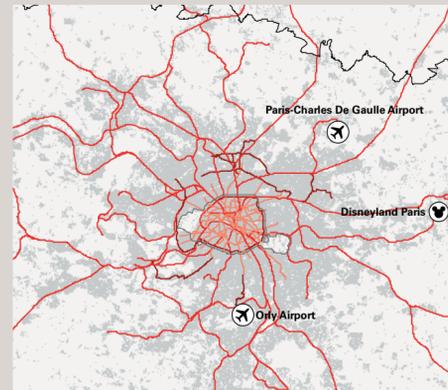
LONDON

Rail Network System Length 1,969 km



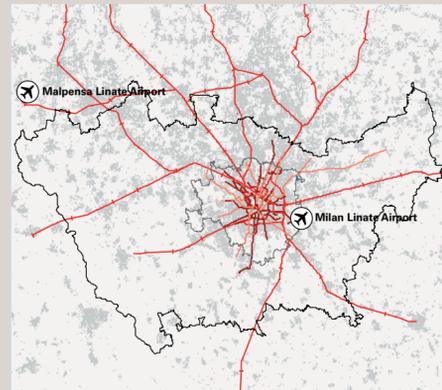
PARIS

Rail Network System Length 1,238 km



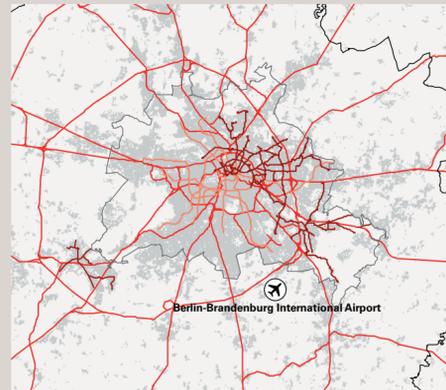
MILAN

Rail Network System Length 611 km



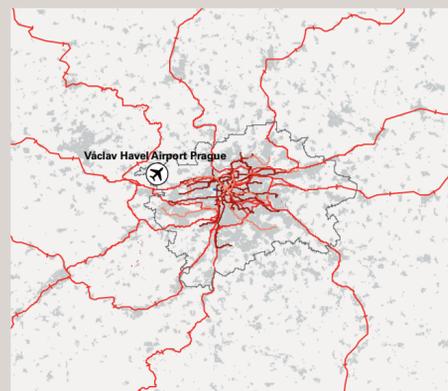
BERLIN

Rail Network System length 1,296 km



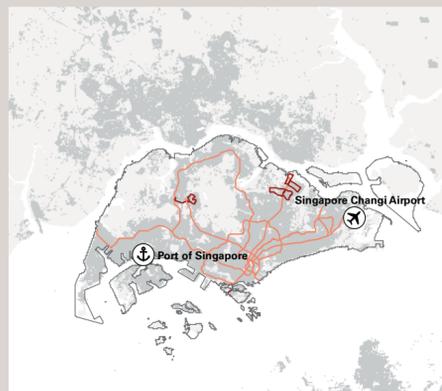
PRAGUE

Rail Network System Length 757 km



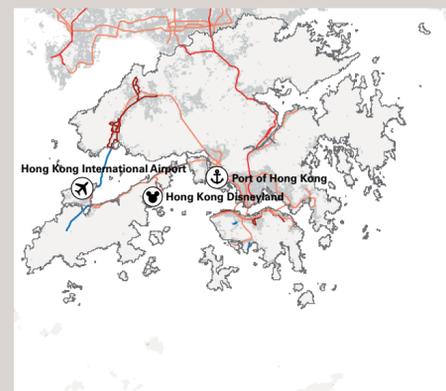
SINGAPORE

Rail Network System Length 222 km



HONG KONG

Rail Network System Length 244 km



The way people chose to get to work in these nine cities is a function of distance, accessibility and mix of uses as well as local topography, climate and culture. Modal split pie charts indicate how people move around their city, whether by private car, public transport, or more active mobility including walking, cycling and scooters.

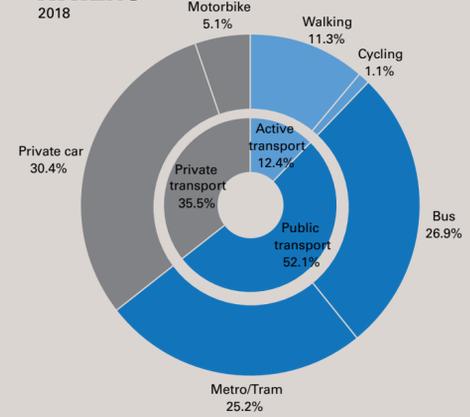
It is striking to observe that 82% of 7.5 m Hongkongers use public transport to get to work and only 7% use a car. If you add walking and cycling, Paris reaches an impressive 89%, and only 11% drive private cars. According to the most

up-to-date data provided by the City of Athens, more than half of the population uses public transport, while around one-third uses private cars and just over 12% walk or cycle. Active mobility is far more pronounced in Prague, Barcelona and – increasingly – in London, where significant investment has been made in the public realm and cycle infrastructure. Despite recent policy interventions Berlin and Milan still reveal relatively high commuting patterns, with 30-39% using private cars.



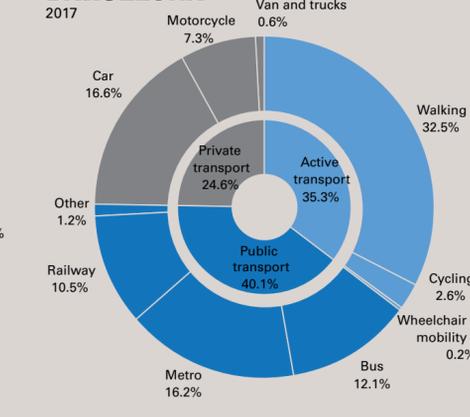
ATHENS

2018



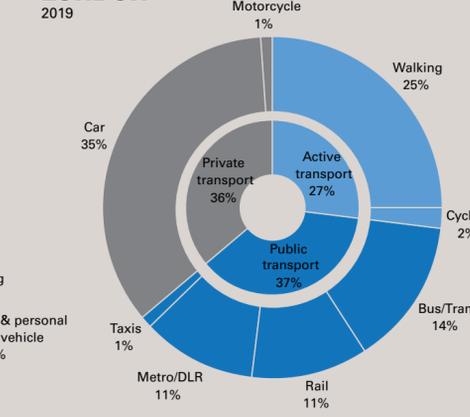
BARCELONA

2017



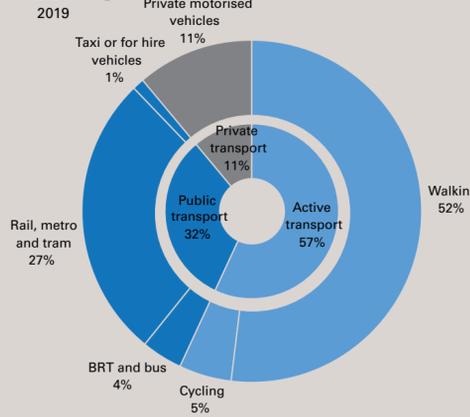
LONDON

2019



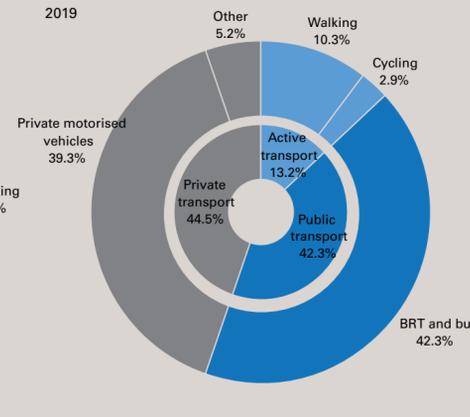
PARIS

2019



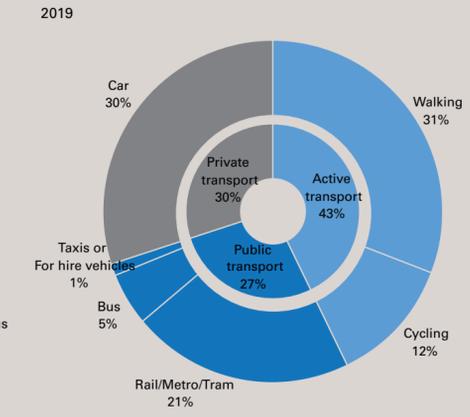
MILAN

2019



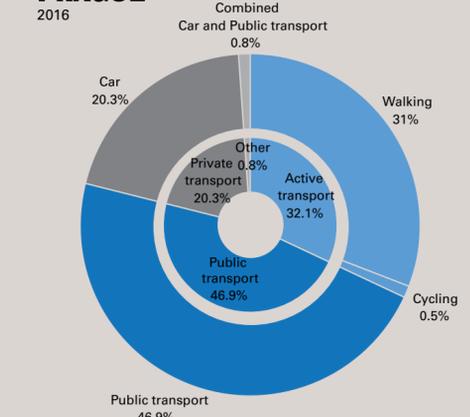
BERLIN

2019



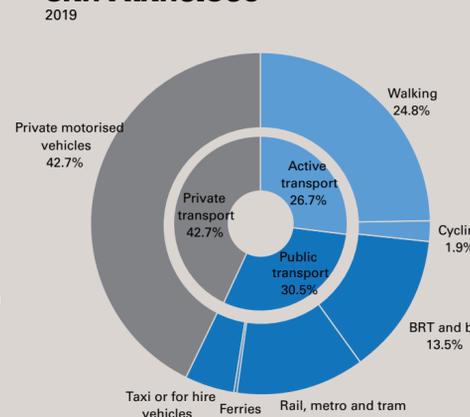
PRAGUE

2016



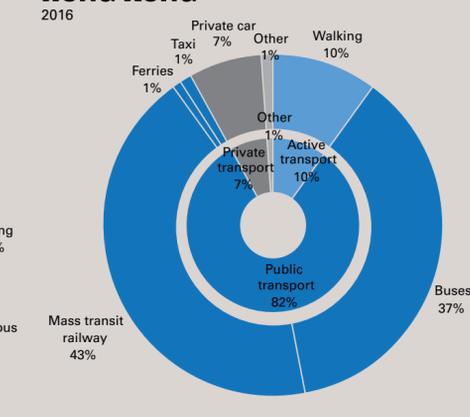
SAN FRANCISCO

2019



HONG KONG

2016



INEQUALITY

Every city experiences inequality, with higher and lower levels of social deprivation, but its distribution across its geography can vary considerably, as shown below in Athens, London, Paris and Barcelona. Mapping deprivation provides insights on where poverty or wealth are clustered or which neighbourhoods lack access to or are well-provided with basic social services and economic opportunities.

Using data from the Social Atlas of Athens, a striking east-west divide across the 'Athens basin' is revealed, with greater deprivation (darker colours) concentrated on the western areas at both the municipal and metropolitan scale. This pattern is linked to the city's historic development,

path dependencies and concentration of deprivation enclaves in the metropolitan periphery. Within the City of Athens boundary, the distribution is more nuanced, with less deprived or more affluent areas in central and eastern districts.

The analysis is based on recent research on 'multiple deprivation' in Athens,² which considers employment levels, housing conditions and access to education. The data confirms that over the last 20 years, there has been a persisting legacy of socio-spatial division and the deepening of a centre-periphery differentiation across the region. At a more detailed scale, the Athenian common building type

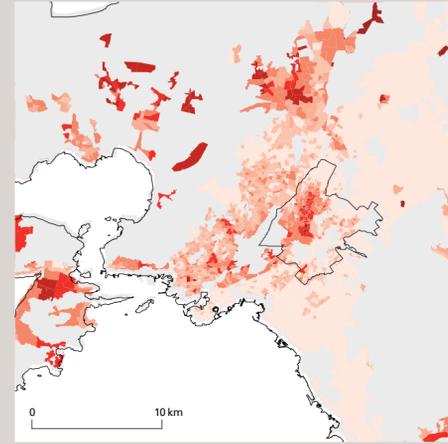
poli-katika has nurtured a degree of vertical social segregation, with more affluent families occupying upper floors and more deprived residents lower floors with less access to fresh air and light.³ This east-west division is totally reversed in London, where historically more deprived residents have lived and worked in the dock areas to the east of the city and more affluent residents are concentrated to the west and along the periphery. Paris has a different distribution of inequality, with a more affluent centre and deprived periphery, much concentrated in the north-eastern fringe.



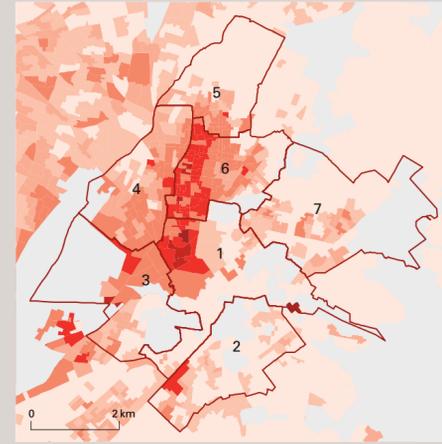
ATHENS

Deprivation index (2021)

REGION

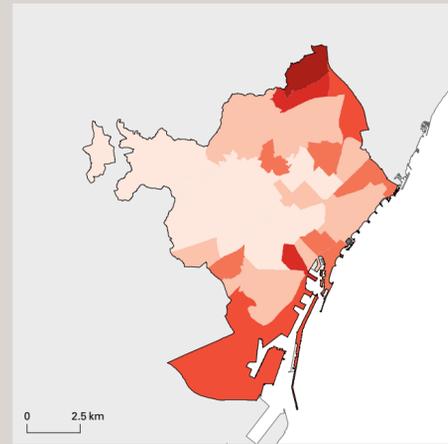


LOCAL



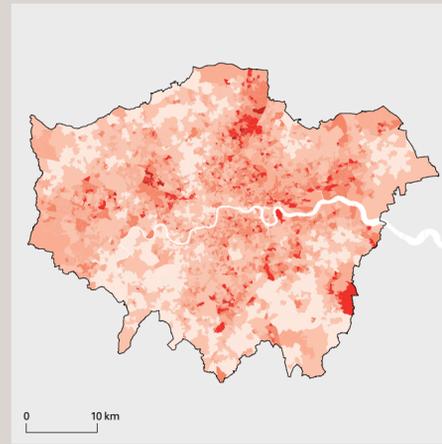
BARCELONA

% households with severe deprivation (2019)



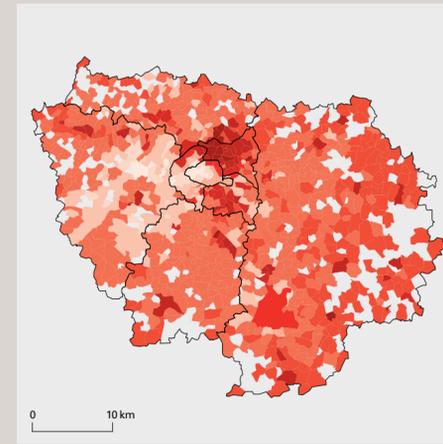
LONDON

Index of Multiple Deprivation score (2019)



PARIS AND ÎLE-DE-FRANCE

The social geography of Ile-de-France communes' residents according to household income profile (2015)



Patissia and Sepolia, some of Athens' most dense and deprived neighbourhoods, are located in the north-western districts of the city.

© TTStudio / Alamy Stock Photo

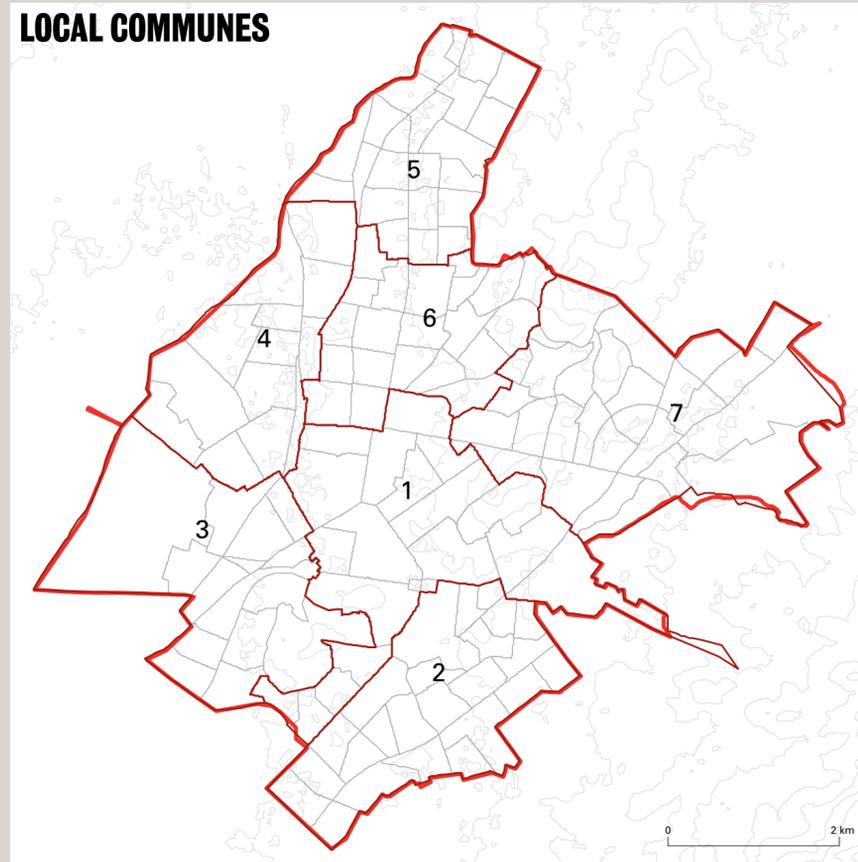
GOVERNANCE

The degree to which government can deliver efficient planning and services is dependent on the power, jurisdiction and accountability of different institutional levels. The diagram on this page (right) illustrates how the different scales of regional, municipal and local administrative structures relate to the urban footprint (in grey) indicating where people live and work in the wider Athens region. The City of Athens itself is divided into seven municipal communes and smaller residential neighbourhoods (below).

The organisational charts (facing page) show which levels of national, regional, city and local government structures are responsible for delivering key public services such as transport, education and health, alongside maps illustrating their geographical boundaries. As the charts suggest, there are numerous, multi-level agencies involved in determining policy and funding of different sectors, with a considerable variation of powers split between the Mayor, the Regional Governor, the regional decentralised administration, central government and various state institutions.

The City of Athens is the capital city, administrative and symbolic centre of the Greek State. It is one of 66 municipalities of the Attica Region, and while the city's population is just under 20% of the wider region, it occupies only 1% of the land area. The City of Athens is part of one of four Regional Units of Athens – central, northern, western, and southern sectors – which encompass 35 municipalities in total. It is led by a directly elected Mayor and the Municipal Council, whose 49 members are elected by local registered voters. Seven separately elected municipal commune councils have limited administrative powers and are further sub-divided into 129 residential local neighbourhoods.

- Attica region
- Administrative city
- Athens communes
- Athens neighbourhoods



GOVERNANCE STRUCTURE

ECONOMY	ENVIRONMENT & PLANNING	INFRASTRUCTURE & TRANSPORT	EDUCATION & CULTURE	HEALTH & SOCIAL SERVICES	SECURITY	OTHER
GREEK CENTRAL GOVERNMENT						
FINANCE	ENVIRONMENT & ENERGY	INFRASTRUCTURE & TRANSPORT	EDUCATION	HEALTH	FOREIGN POLICY	CABINET OFFICE
DEVELOPMENT & INVESTMENTS	CLIMATE ACTION		CULTURE & SPORTS	WORK & SOCIAL AFFAIRS	DEFENCE	INTERNAL AFFAIRS
TOURISM				MIGRATION & ASYLUM	CITIZEN PROTECTION	DIGITAL GOVERNANCE
MARITIME & INSULAR					JUSTICE	
POLICIES						
AGRICULTURAL DEVELOPMENT						
ATTICA DECENTRALISED ADMINISTRATION						
	PLANNING & ENVIRONMENT			MIGRATION	CITIZEN PROTECTION	INTERNAL ORGANISATION
					EMERGENCY	
ATTICA REGION						
FINANCE	SUSTAINABLE DEVELOPMENT & CLIMATE CHANGE	TRANSPORT & COMMUNICATION	SPORTS & CULTURE	HEALTH & SOCIAL CARE	CITIZEN PROTECTION	INTERNAL ORGANISATION
DEVELOPMENT & INFRASTRUCTURE					DEFENCE & EMERGENCY	INFORMATION & DIGITAL SERVICE
AGRICULTURAL DEVELOPMENT						LEGAL SUPPORT
CITY OF ATHENS						
FINANCE	URBAN PLANNING & ENVIRONMENT	ROAD CONSTRUCTION	CHILDHOOD & EDUCATION	HEALTH	MUNICIPAL POLICE	INTERNAL ORGANISATION
MUNICIPAL PROPERTY	URBAN DEVELOPMENT	TECHNICAL INFRASTRUCTURE	SPORTS & CULTURE	SOCIAL CARE		LEGAL SUPPORT
REVENUES	GREEN SPACES & FAUNA	CLEANING & RECYCLING				CITIZEN SERVICE
	STRATEGIC PLANNING, RESILIENCE, INNOVATION & DOCUMENTATION					INTERNATIONAL COOPERATION & PUBLIC RELATIONS

GREECE

332 municipalities

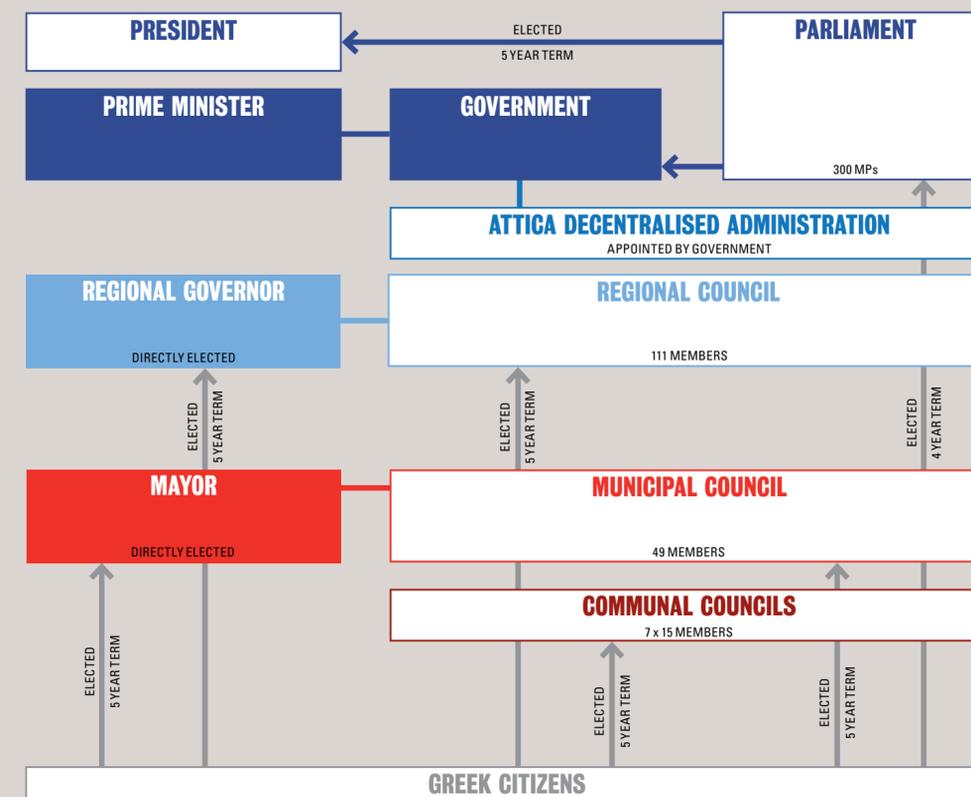


ATTICA REGION

66 municipalities



POLITICAL REPRESENTATION



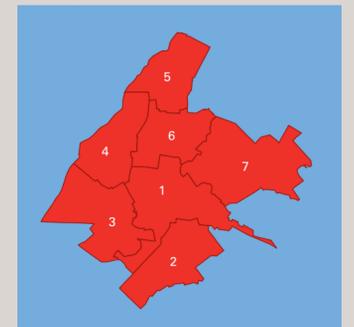
ATHENS REGIONAL UNITS

4 Regional units



CITY OF ATHENS

7 municipal communes



PEOPLE

Understanding population change and demographic trends provides city administrations with core information on which to base planning and investment strategies. Like other countries, Greece undertakes a detailed national census every ten years, so accurate data on Athens is currently based on the 2011 census (the 2021 census was affected by COVID-19 and is still in progress).

The last three last censuses of 1991, 2001 and 2011 confirm a continuous decline of the residential population, dropping

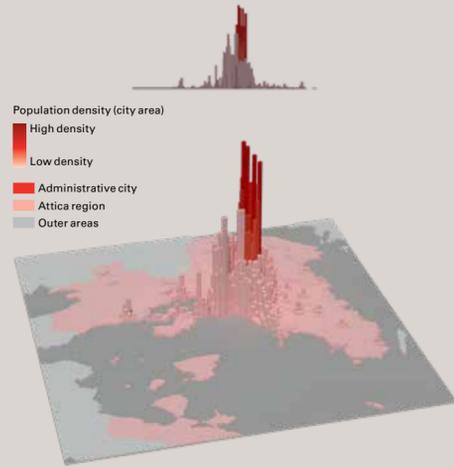
from 772,072 to 664,046 people in the space of 20 years. While accurate figures are not available for the status quo, estimates suggest that there has been a further slight decline and stabilisation in recent years.

The level of residential density followed a different trajectory: it increased in the first decade, and dropped in the second. Peak density increased from 40,466 pers/km² in 1991 to 46,217 pers/km² in 2001 and then decreased quite substantially to 37,461 pers/km² by 2011. The average density

rose from 17,249 pers/km² to 18,995 pers/km² and then dropped to 16,615 pers/km² (2011). The fact that the residential densities in the metropolitan area outside the City of Athens increased from 2001 to 2011 confirms that Athens has decentralised, with some residents moving out to the suburbs, a process that will have continued as a result of the effects of the economic crisis.

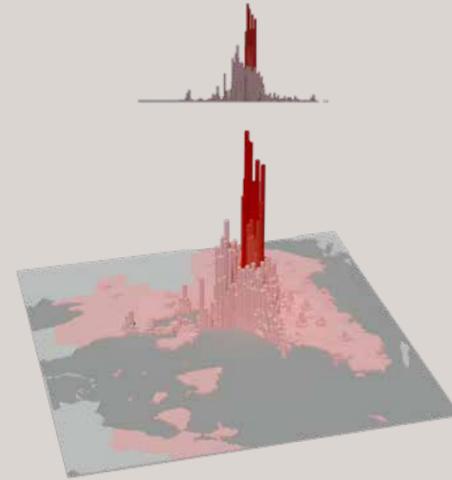
ATHENS 1991

Peak – 40,466 pers/km²
Average – 17,249 pers/km² (inside admin area)



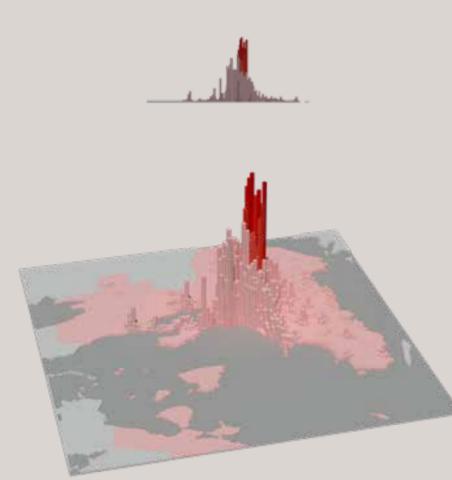
ATHENS 2001

Peak – 46,217 pers/km²
Average – 18,955 pers/km² (inside admin area)



ATHENS 2011

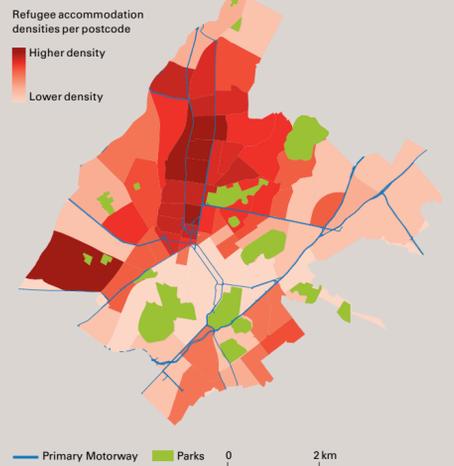
Peak – 37,461 pers/km²
Average – 16,615 pers/km² (inside admin area)



REFUGEES

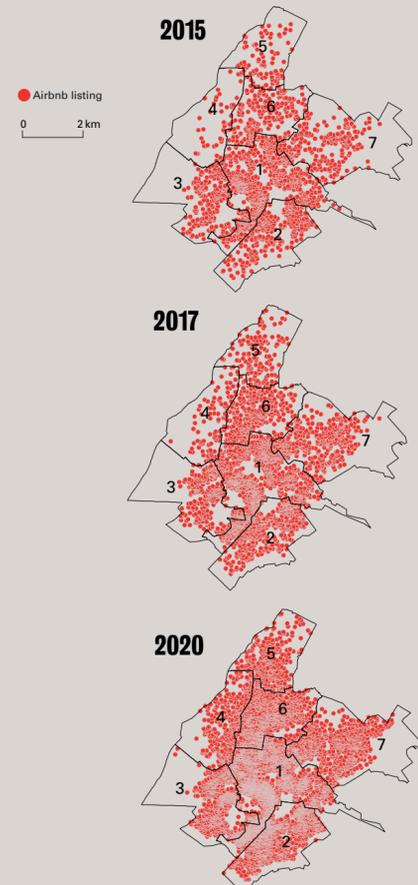
Camp total (2022): 1,326 refugees
Apartments total (2021): 7,236 refugees

Over the last decade, Athens has been the arrival point for hundreds of thousands of refugees from different global regions, reaching peak numbers from 2015 onwards. While the flow has now reduced, the City of Athens has responded with a range of initiatives – including the earlier synAthina programme – to provide shelter and accommodation and support integration. The ESTIA programme, run by the City of Athens and other partners, has provided rented housing to vulnerable refugees and asylum seekers, accepting over 7,000 individuals in 1,500 units.⁴ A recent mapping exercise based on postcode mapping reveals that refugee and asylum seeker accommodation are concentrated in the northern parts of the city, while Eleonas Camp, a major temporary accommodation facility located in the west, houses 1,326 people.⁵



SHORT-TERM RENTALS

The replacement of traditional residential patterns with short-term rentals, dramatically accelerated by the meteoric rise of Airbnb in cities across the world, has fuelled the processes of gentrification and touristification, especially in the more deprived areas in Athens, which are becoming increasingly unaffordable to some economic groups. In just five years, from 2015 to 2020, Athens saw a 556% increase in the number of Airbnb listings, with a major concentration of nearly half in central districts (like Koukaki and Exarchia), close to historical sites and cultural facilities, with fewer properties available in northern and western communes.



JOBS

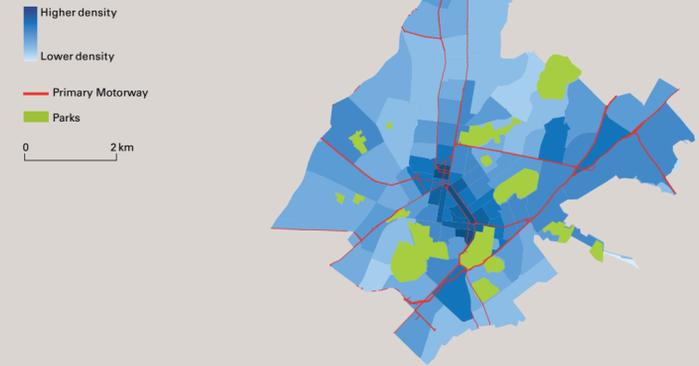
Mapping employment densities offers a different perspective on how a city is experienced, revealing clusters of specialisation including industrial areas, public sector, financial services and creative economy districts. By identifying job densities per postcode three underlying patterns of employment in Athens are made evident. Firstly, there is a major concentration of jobs in the city centre, particularly in the public sector jobs, reinforcing the centrality of the city. Secondly, topography plays a major role, with employment clusters placed in flatter areas with good accessibility. Thirdly, many jobs are located along the major linear road axes linking the city to the outskirts. While public sector jobs are highly clustered, private businesses and companies are more dispersed across the city's urban fabric.

Estimates suggest there are total of 366,032 jobs⁶ in the City of Athens in the public and private sectors, reinforcing its significant role as an economic engine at the metropolitan, regional and national level. Its entrepreneurial activity is underscored by the fact that 265,730 or 73% of all jobs are in private companies or businesses⁷ while 27% are in the public sector⁸.

The number of individual employees in private companies is also instructive, with a high ratio of 6:1 between businesses with fewer than five employees and with more than five, highlighting the importance of small-scale businesses – either family-run or small entrepreneurs – contributing to the inner-city economy. By contrast, many larger-scale businesses are located in the periphery to the east and west, in larger plot sizes and close to or along main arterial roads.

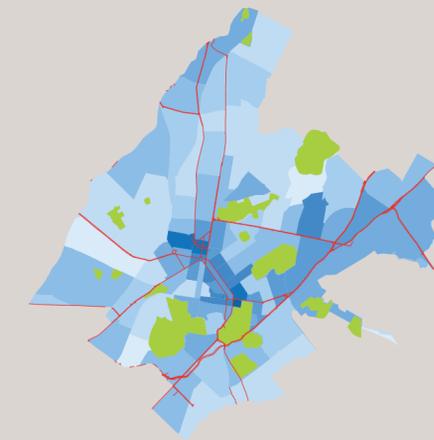
TOTAL JOBS

Job densities per postcode (public and private sector jobs)
Total (2020): 366,032 jobs
Average (2020): 9,614 jobs/km²



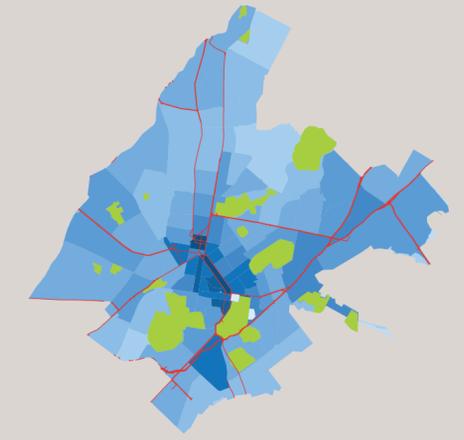
PUBLIC SECTOR JOBS

Job densities per postcode
Total (2020): 100,302 jobs
Average (2020): 2,635 jobs/km²



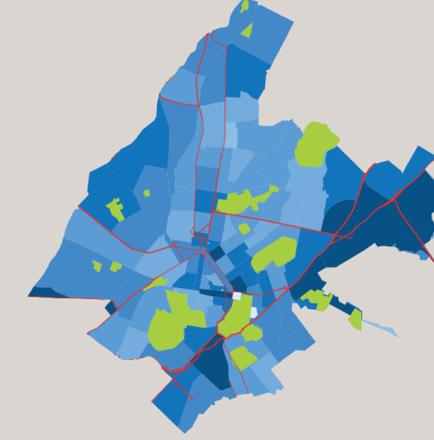
PRIVATE SECTOR JOBS

Job densities per postcode
Total (2020): 265,730 jobs
Average (2020): 6,980 jobs/km²



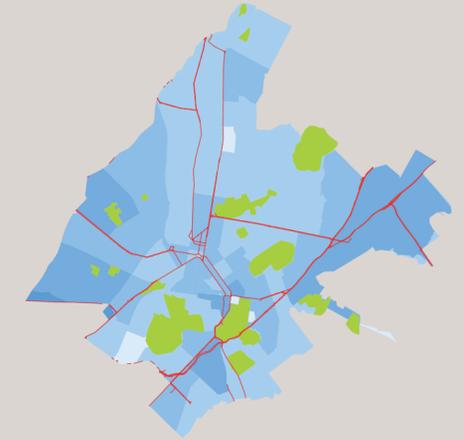
LESS THAN FIVE WORKERS

Number of business per postcode (per type of business) –
Business up to 5 workers
Total (2020): 31,211 business



MORE THAN FIVE WORKERS

Number of business per postcode – with more than 5 workers
Total (2020): 5,123 business





The Areopagus is a popular open-air destination offering views of the city and its archaeological sites, with the Pnyx, Thissio neighbourhood and the National Observatory in the background.

© Zoonar/Daniel Ferreira-Lettes Ciccarino / Alamy Stock Photo

OPEN SPACE

This section explores the structure of open space both within and outside the City of Athens. The larger-scale map illustrates how the Athens Basin is framed by a mixed Mediterranean landscape with mountains of relatively high altitude – to the east (Mount Hymettus 1,062 m), to the west (Mount Egaleo, 469 m and Mount Pikilo, 465 m) and further out to the north-west (Mount Parnitha, 1,413 m) and to the north-east (Mount Pentelikon, 1,109 m) – and by Faleron Bay to the south. All these natural assets are within a five- to ten-kilometre radius of the centre of the city and even though they are not fully accessible, they contribute to the wider environmental and social ecosystem of the region. Many are used for leisure and other weekend activities by Athenians living at high inner-city densities, where temperatures are exacerbated by the urban heat island effect. The extended seafront onto the Mediterranean provides a

well-ventilated and much-used social amenity, especially during the increasingly hot summer months.

The analysis of both soft and hard open spaces within the boundaries of the City of Athens at the commune level reveals a more complex distribution of amenities. Using data provided by the City of Athens, the maps identify the location of public spaces, such as squares (defined as paved areas surrounded by buildings) and green areas (defined as smaller- and larger-scale public, open and natural spaces), which contribute to the social and environmental dynamics of the city's different districts. A more granular understanding of the urban DNA of Athens' seven communes is provided in the table below, which documents the size and density of public spaces and green areas as well as population density, nationality, age and levels of deprivation level.

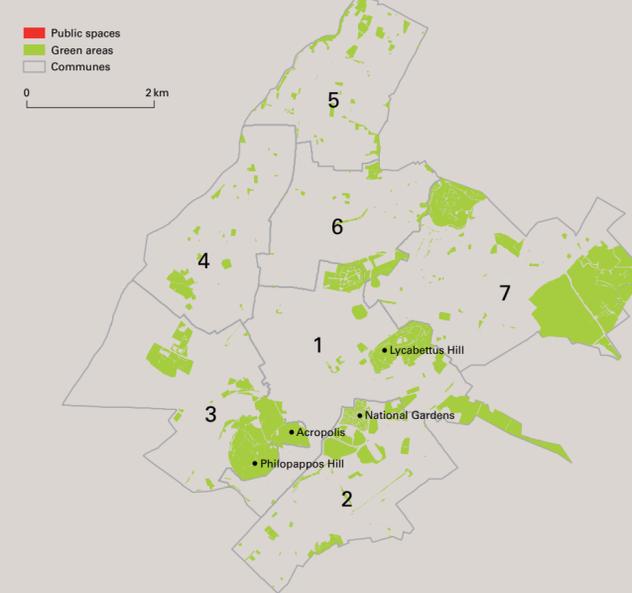
In the City of Athens, most green areas are distributed along a south-west/north-east axis linking Commune 3, Commune 1 and Commune 7, which perform well in terms of green space provision with an average of 17 m² per person compared to much lower levels of 2 m² per person in the northernmost communes. While western and north-western neighbourhoods have less access to green areas – Commune 4 has the lowest green area provision in the city – the mixed-use industrial district of Eleonas is set to benefit from investment in sports facilities and a recreational park. Twenty-two neighbourhoods in the City of Athens with over 87,000 residents lack any green space provision. Of the 232 public open spaces and squares in Athens, the majority are concentrated in central areas, with 38% located in Commune 1, providing a relatively generous amount of 2.4 m² per person for its residents compared to lower

proportions in more peripheral communes. The north-central Commune 6 (Kypseli), for example, has the highest residential density but lowest proportion of public open space at 0.4 m² per person. At the neighbourhood scale, the Historical Triangle and Plaka-Monastiraki areas contain 15 public spaces each (30 in total) while peripheral areas are less well provided. Forty-four neighbourhoods – nearly one-third of the total, housing over 150,000 people – lack any public space provision.

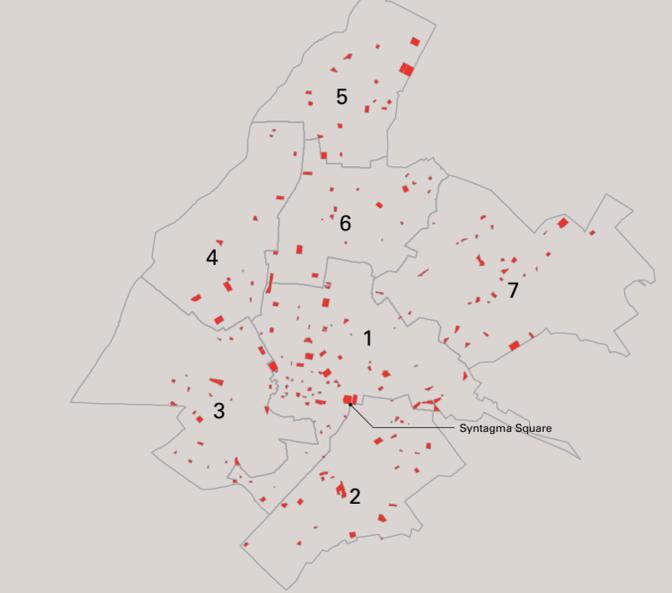
PARKS AND GREEN AREAS



GREEN AREAS



PUBLIC SPACES



URBAN DYNAMICS

Communes		Green area					Public spaces					Socio-economic indicators					
Name	area km ²	Population density (pers./km ²)	Total green (m ²)	Average size (m ²)	Green density (m ² /km ²)	Green per person (m ² per pers)	Total number	Average area size (m ²)	Total area (m ²)	Public space density (m ² /km ²)	Public space per person (m ² per pers)	% of Greeks	% of 65+ population	Average deprivation	% Refugee accomodation	Number of airbnb listings per km ²	Jobs density (jos/m ²)
1	7.70	10,041	1,769,928	12,553	229,911	23	89	2,115	188,199	24,447	2.4	73	21	4.7	5	726	19,604
2	4.94	20,954	675,216	3,112	136,787	7	34	2,809	95,520	19,351	0.9	83	21	5.5	6	385	8,157
3	5.45	8,608	860,791	18,315	157,816	18	24	1,950	46,800	8,580	1.0	84	17	4.4	2	215	4,507
4	4.51	18,731	224,790	5,352	49,819	3	15	3,256	48,835	10,823	0.6	79	16	4.0	10	89	5,232
5	4.03	24,441	335,712	3,904	83,332	3	18	4,719	84,934	21,083	0.9	81	18	5.2	8	70	3,219
6	3.70	34,658	121,933	2,345	32,929	1	20	2,730	54,605	14,747	0.4	64	19	3.2	57	328	3,525
7	7.55	15,617	2,370,572	18,814	313,802	20	32	2,712	86,769	11,486	0.7	81	20	5.3	10	103	10,374

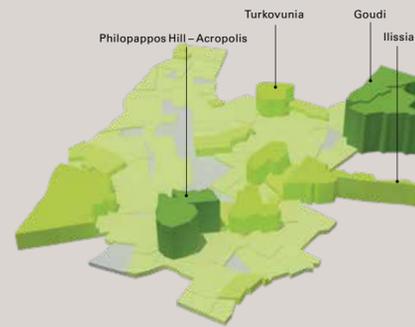
Note: For methodological reasons, small continuous green areas extending beyond the city boundaries were also included in the measurements.

These three-dimensional visualisations illustrate the levels of hard and soft open spaces that exist across the City of Athens and its different neighbourhoods. They map the number, distribution and size of public spaces and green areas within each of the city's neighbourhoods, with taller peaks in the diagrams indicating higher values of individual indicators. Reinforcing the data tabulated on page 21, the diagrams show that central and some eastern districts are well endowed with hard and soft open spaces, but that northern and western fringes are less well served.

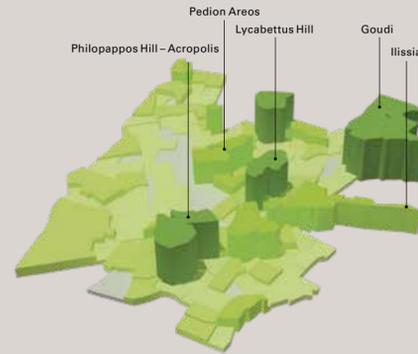
GREEN AREAS

Higher value No value
Lower value

TOTAL GREEN AREA IN EACH NEIGHBOURHOOD (M²)



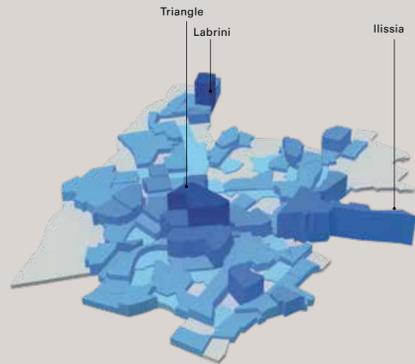
AMOUNT OF GREEN AREA IN PROPORTION TO THE SIZE OF THE NEIGHBOURHOOD (M²/M²)



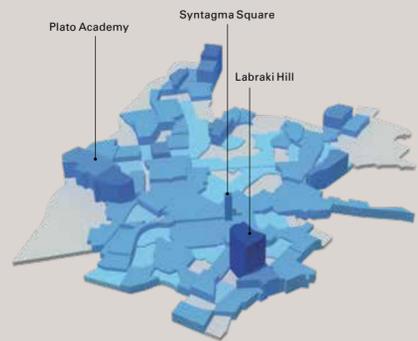
PUBLIC SPACES

Higher value No value
Lower value

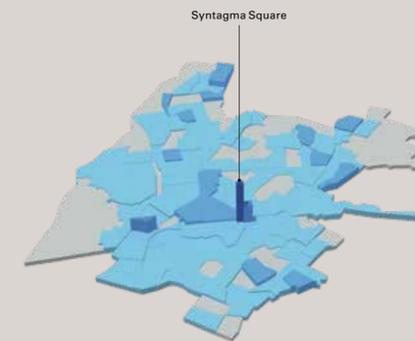
TOTAL AMOUNT OF PUBLIC SPACE IN EACH NEIGHBOURHOOD (M²)



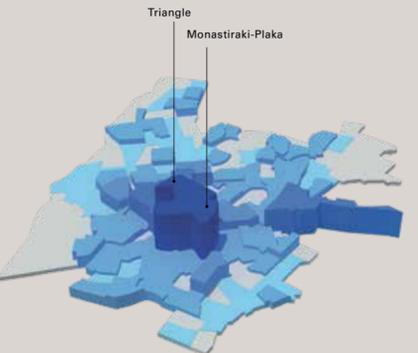
AVERAGE SIZE OF PUBLIC SPACE PER NEIGHBOURHOOD (M²)



AMOUNT OF PUBLIC SPACE IN PROPORTION TO THE SIZE OF THE NEIGHBOURHOOD (M²/M²)



TOTAL NUMBER OF PUBLIC SPACES PER NEIGHBOURHOOD



A typical street in Pagkrati
© Loukas Triantis



Aghios Georgios Square in Kypseli
© Loukas Triantis

LOCAL CHARACTER

By drilling down into eight selected neighbourhoods in each of the city's seven communes, the report offers insights into the spatial and social character of Athens' uniquely dense urban culture. Organised in order of levels of residential density, a sequence of eight 500 m x 500 m sub-areas

are analysed in terms of urban form (using figure-ground mapping and satellite views) and three-dimensional quality (through photographs) with a brief commentary on their social and spatial nature. The featured areas are Kypseli (Commune 6), Pagkrati (Commune 2), Ampelokipoi

(Commune 7), Kato Petralona (Commune 3), Ano Patissia-Kyriadiou (Commune 5), Neos Kosmos-Aghios Sostis (Commune 2), Plato Academy (Commune 4) and Plaka-Triangle (Commune 1).



KYPSELI, COMMUNE 6

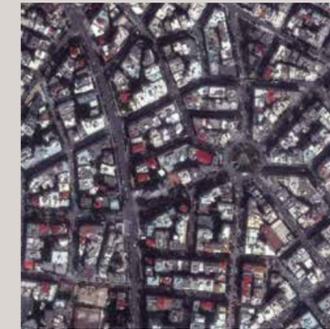
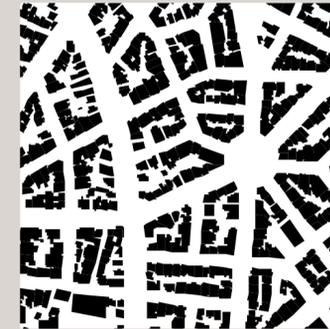


A typical street in Kypseli © Loukas Triantis



Kypseli is the most densely populated and compact of the selected areas, with few green spaces and the presence of some small-scale local squares. It is a lively, mixed-use residential area with a high concentration of businesses. The urban fabric is dominated by the most common building unit in Athens, the *poli-katika*, ranging from five to seven floors. It has the highest levels of deprivation and an ageing population, and accommodates a culturally diverse population with a large number of refugees. The high number of Airbnb listings and increase in property values associated with the arrival of the metro line is fuelling the potential for gentrification.

ANO PATISSIA-KYRIADOU, COMMUNE 5

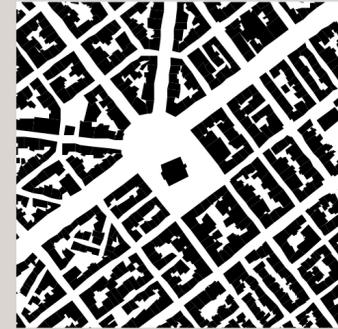


A typical street in Ano Patissia-Kyriadiou © Loukas Triantis



Ano Patissia-Kyriadiou is a less densely built-up area than others in Athens. The high percentage of open spaces, almost half of the total area, is mostly due to its creation as garden-city urban planning model. The dominant *poli-katika* apartments block are slightly lower – for example in comparison to Kato Petralona – accompanied by early 20th-century buildings of a smaller scale. Many residents are of Greek-origin and the neighbourhood has one of the lowest levels of deprivation and Airbnb listings across the sample. The area stands apart from the surrounding northern neighbourhoods, in terms of both physical design and socio-economic profile.

PAGKRATI, COMMUNE 2

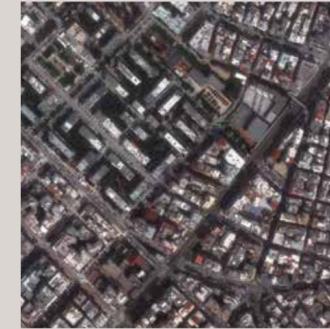
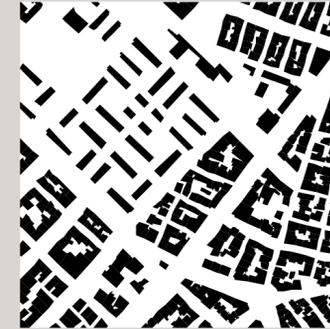


A typical street in Pagkrati © Loukas Triantis



Pagkrati is the second most densely populated residential area and has low levels of deprivation. The high numbers of Airbnb listings, combined with the low numbers of refugees, are indicative of the area's social and economic status. Nevertheless, the demographics show an ageing population, with 23% aged 65 or over. As with Kypseli, the urban fabric is compact and dominated by the *poli-katika*, which create a contrasting streetscape. Some areas have wide pavements and tall trees, providing shading and pleasant walkable environment conditions, while other streets are particularly narrow and dense. Open spaces cover almost half of the area, attracting a young population to its amenities.

NEOS KOSMOS – AGHIOS SOSTIS, COMMUNE 2



A typical street in Neos Kosmos-Aghios Sostis © Loukas Triantis



Neos Kosmos-Aghios Sostis is another medium-density neighbourhood. Its western section, Aghios Sostis, was developed in the 1960s on modernist planning principles with a fabric of detached large-scale buildings. On the eastern side, Neos Kosmos is arranged along a network of narrow streets with typical four-to five storey *poli-katikas*. The unique modernist features of Aghios Sostis explain the highest levels of open spaces (more than 60%), as well as its low compactness. The sample area presents a dominantly Greek-origin ageing population and average levels of deprivation. It also presents low levels of refugee accommodation and low concentration of Airbnb listings, despite its central location.

AMPELOKIPOI, COMMUNE 7

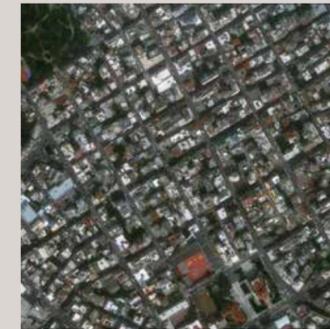


Open-air market in Ampelokipoi © Loukas Triantis



Ampelokipoi is a dense and popular mixed residential area with a high level of commercial activities. The urban form is compact, also defined by the *poli-katika* building typology, arranged on a network of narrow streets with limited amount and quality of open space. Although green spaces are scarce, some large-scale urban parks are in close proximity. The area is inhabited by mid-income social and economic residents and has relatively low levels of deprivation, ethnicity, ageing population, Airbnb listings and refugee accommodation.

PLATO ACADEMY, COMMUNE 4

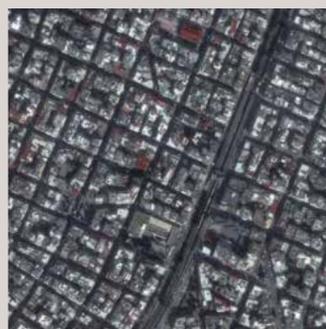


A typical street in Plato Academy © Loukas Triantis



Plato Academy, named after the archaeological site, is the sample area with the lowest residential densities. Its building typologies include the units of four to five storey *poli-katika* combined with a few early 20th-century buildings. The open spaces cover almost half of the total area, comprising narrow and wide streets and local squares. The high levels of deprivation, along with the highest number of small-scale buildings, are indicative of a low-income population. The projected development of the New Panathinaikos Stadium in Votanikos, as well as the upgrading of Plato Academy Park, are expected to have an impact on the area.

KATO PETRALONA, COMMUNE 3

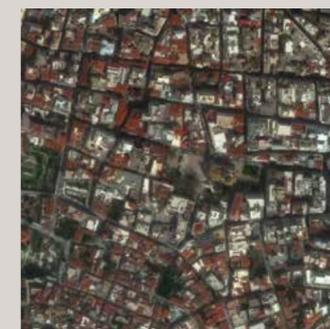


Cycle path in Kato Petralona © Loukas Triantis



Kato Petralona is a medium-density neighbourhood defined by smaller and lower *poli-katika* buildings ranging from four to five floors. Located close to some large-scale urban parks and archaeological sites, such as Philopappos Hill, it is made up of small-scale land property plots and building typologies. The area has a younger population than other districts and is less culturally mixed, with high levels of Airbnb listings and average levels of deprivation.

PLAKA-TRIANGLE, COMMUNE 1



A typical commercial street in Triangle © Loukas Triantis



Plaka-Triangle, at the heart of the city's historic centre, is a busy and lively area of low population densities and extremely high jobs densities. Being a largely touristic site, the area hosts the vast majority of temporary accommodations such as Airbnb. Its compact urban form refers to the dense medieval grid with meandering narrow streets. Plaka is the oldest residential community around the Acropolis Hill, with neo-classical style dwellings, while the Triangle (Emporiko Trigono) is the commercial heart of the city, made up of a varied building stock. The open spaces cover 40% of the total area and include an extensive network of pedestrian streets, public squares and archaeological sites.

COMPARING NEIGHBOURHOODS

The spider-diagram representation of selected social and spatial variables of the eight selected sub-areas graphically display the variation in urban experiences across Athens based on the data tabulated below. They reveal that residential densities and provision of open spaces are not directly correlated with social deprivation or employment levels. The top three densest sub-areas, Kypseli, Pagkrati and Ampelokipoi, present different social and environmental characteristics. The Plaka-Triangle area in central Athens has a relatively low residential population density but high

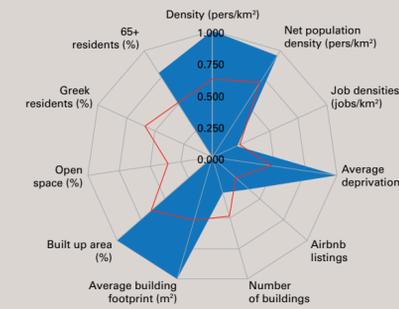
number of Airbnb listings and jobs, with a younger population and generous levels of open and green space. Kypseli, by contrast, is very densely populated with low levels of open space provision. Its residents are more deprived and include significant numbers of refugees and foreigners.

The sub-areas in western and northern Communes 3, 4 and 5 – Kato-Petralona, Plato Academy and Ano Patissia-Kyriadou – have a higher percentage of local Greek residents living in areas with limited amounts of green and public space, and fewer Airbnb listings. Pagkrati, in

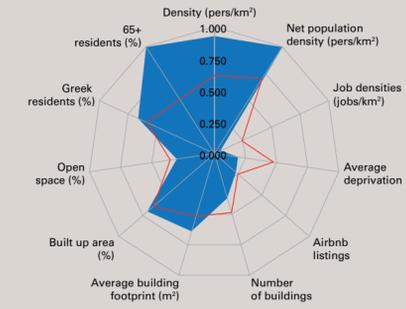
the southern Commune 2, has an elderly population living in higher densities, with fewer short-term Airbnb rentals and limited proportion of open space. In general, there are greater concentrations of refugee accommodation in more deprived areas, while the central and eastern parts of the city concentrate around 80% of public and private sector jobs.

The analysis reveals that beneath Athens' seemingly homogeneous, dense and continuous fabric lie diverse urban realities reflecting the complex social, economic and political forces that have shaped its past, present and future.

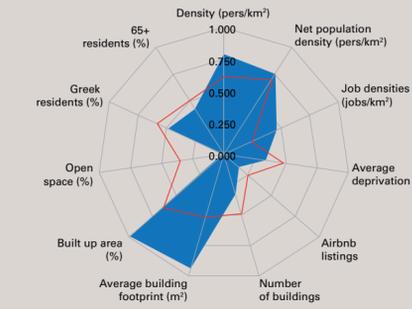
KYPSELI, COMMUNE 6



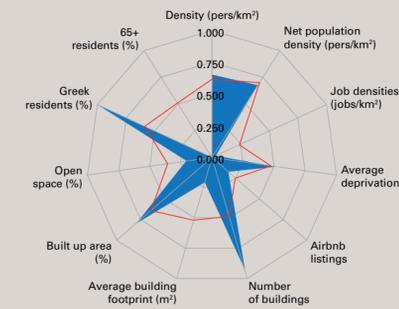
PAGKRATI, COMMUNE 2



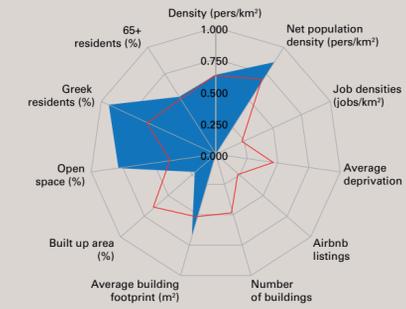
AMPELOKIPOI, COMMUNE 7



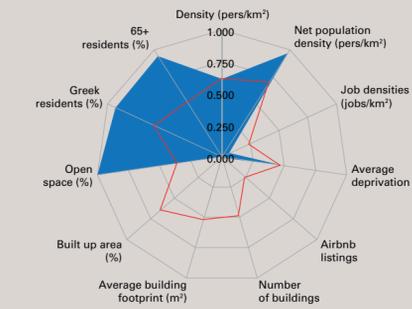
KATO PETRALONA, COMMUNE 3



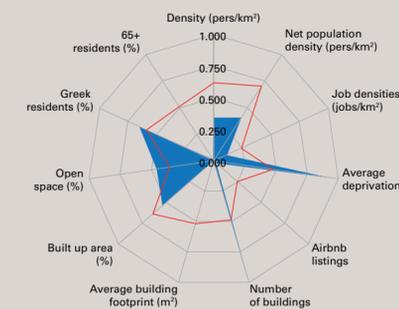
ANO PATISSIA-KYPRIADOU, COMMUNE 5



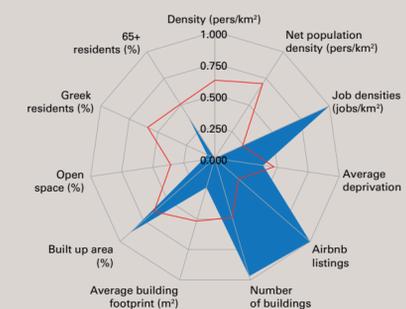
NEOS KOSMOS – AGHIOS SOSTIS, COMMUNE 2



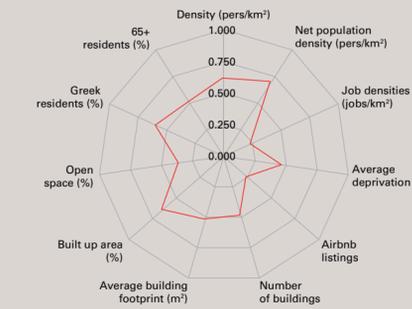
PLATO ACADEMY, COMMUNE 4



PLAKA-TRIANGLE, COMMUNE 1



AVERAGE

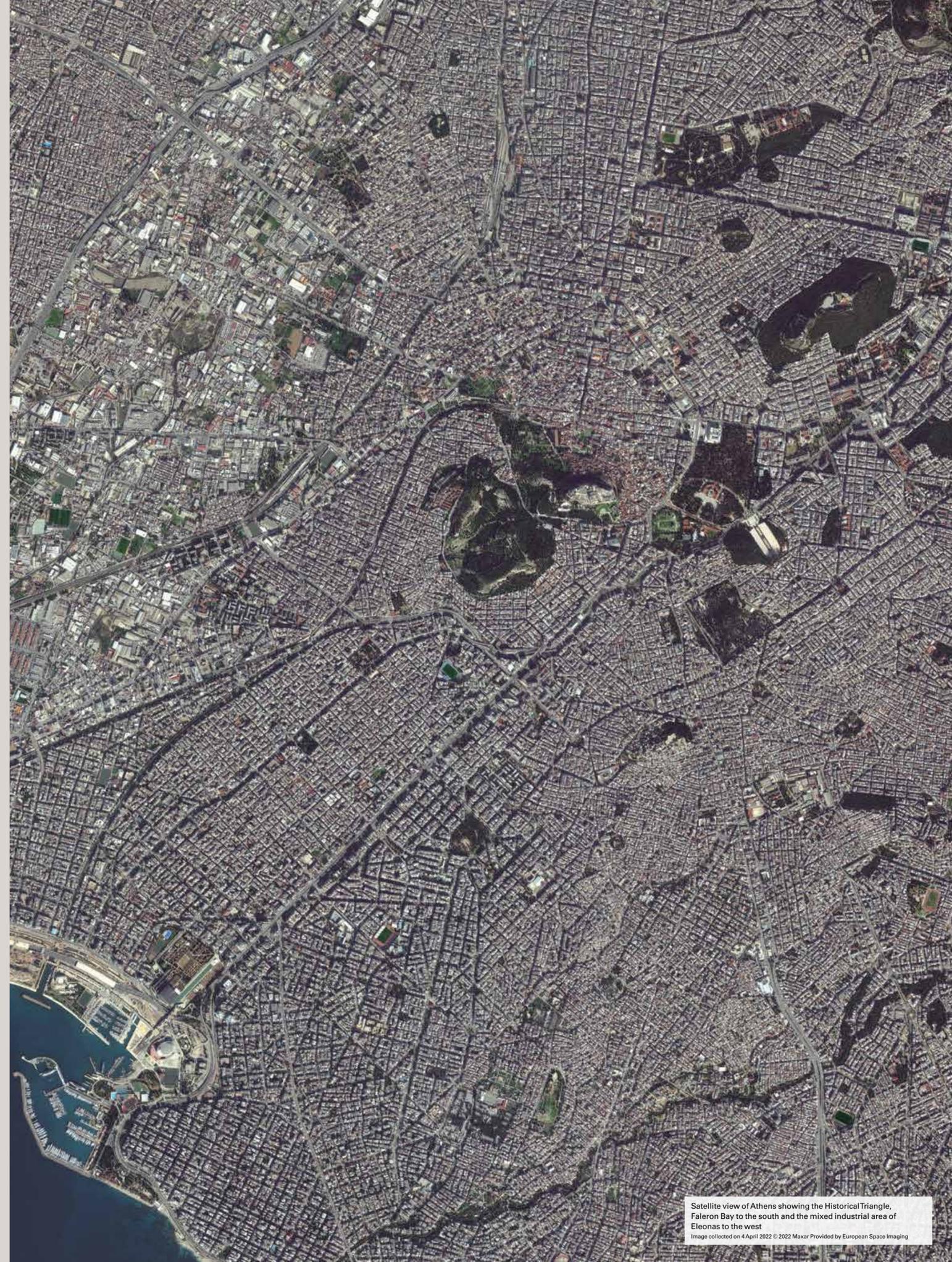


Due to methodological reasons, all values were normalised between 0 and 1, where 0 is the lowest value and 1 the highest.

Name	Density (pers/km ²)	Number of buildings	Average building footprint (m ²)	Net population density (pers/km ²)	Built up area (%)	Open space (%)	Average deprivation*	Greek residents (%)	65+ residents (%)	Airbnb listings	Job densities (jobs/km ²)
Kypseli	34,978	602	261	55,760	63	37	3.4	68	22	194	7,761
Pagkrati	32,542	630	221	58,374	56	44	5.5	81	23	118	3,400
Ampelokipoi	28,117	615	254	45,035	62	38	5.1	77	19	85	14,322
Kato Petralona	23,573	835	174	40,677	58	42	4.7	88	17	93	2,866
Ano Patissia-Kyriadou	22,660	495	225	50,920	45	55	6.0	87	20	10	1,986
Neos Kosmos – Agios Sostis	22,317	496	199	56,645	39	61	4.8	86	23	18	3,688
Plato Academy	13,458	861	151	25,869	52	48	3.6	81	17	23	5,046
Plaka-Triangle	2,227	850	177	3,694	60	40	5.0	69	19	490	28,777

*Note: For the average deprivation, the lower the value the most deprived the area.

Data sources: this section analysis combines data from previous spreads and includes extra data from: Athens Social Atlas, Athens Municipality, © OpenStreetMap and LSE Cities



Satellite view of Athens showing the Historical Triangle, Faleron Bay to the south and the mixed industrial area of Eleonas to the west
Image collected on 4 April 2022 © 2022 Maxar Provided by European Space Imaging



Dionysiou Areopagitou Street near the Acropolis
© Aristidis Vafeiadakis

URBAN AGE

The Urban Age programme is an international investigation of cities jointly organised by LSE Cities and the Alfred Herrhausen Gesellschaft. Through conferences, research, advisory work and engagement, the Urban Age explores the diverse spatial, social, economic and political dynamics of global cities in different regions of the world. Since 2005 the Urban Age has built an extensive knowledge base with interdisciplinary expertise. It is an authoritative source of comparative data and visual information on over 60 global cities and urban regions, and a repository of critical writings, reflections and presentations by urban leaders, practitioners and experts. Urban Age conferences have been held in cities across five continents, including Addis Ababa, Delhi, Rio de Janeiro, London, Hong Kong, Istanbul, São Paulo, Mumbai, Mexico City, Johannesburg, Berlin, Shanghai and New York City. In 2019 the Urban Age Task Force was launched to work with city governments and help deliver sustainable urban change at the environmental, social and spatial level.

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LSE Cities is an international centre at the London School of Economics and Political Science that carries out research, graduate and executive education, engagement and advisory activities in London and abroad. It studies how people and cities interact in a rapidly urbanising world, focusing on how the physical form and design of cities impacts on society, culture and the environment. Extending LSE's century-old commitment to the understanding of urban society, LSE Cities investigates how complex urban systems are responding to the pressures of growth, change and globalisation with new infrastructures of design and governance that both complement and threaten social and environmental equity.

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The Alfred Herrhausen Gesellschaft promotes a free and open society and its cohesion. Democracy, the social market economy and sustainability are the foundations of such a society. Its work is based on the values of Alfred Herrhausen: on freedom and responsibility, on competition and compassion. Alfred Herrhausen thought and acted with the aim of crossing and overcoming boundaries. In his memory, the Alfred Herrhausen Gesellschaft creates platforms for discussions to enrich relevant discourses during selected events, and in publications and other media.

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Endnotes

- 1 EKKE-ELSTAT, 2015, *Panorama of Greek census data 1991–2011*. Database and mapping application. Available at: <https://panorama.statistics.gr/en> and Maloutas, T., Spyrellis, S. (eds) (2015) *Athens Social Atlas. Digital compendium of texts and visual material*. Available at: <http://www.athenssocialatlas.gr/en>
- 2 Karadimitriou, N., Maloutas, Th., and Arapoglou, V. (2021). "Multiple deprivation and urban development in Athens, Greece: Spatial trends and the role of access to housing." *Land*, 10(3), 290: <https://doi.org/10.3390/land10030290>, and Spyrellis S. (2013). Division sociale de l'espace métropolitain d'Athènes, facteurs économiques et enjeux scolaires. Ph.D. thesis, Denis Diderot University, Paris.
- 3 Maloutas, T., Spyrellis, S. (2015). "Vertical social segregation in Athenian apartment buildings." In Maloutas, T., Spyrellis, S. (eds) *Athens Social Atlas. Digital compendium of texts and visual material*. <https://www.athenssocialatlas.gr/en/article/vertical-segregation>
- 4 General Secretary for Reception of Asylum Seekers, Ministry of Migration and Asylum. Additional info: Greek Council of Refugees, UNHCR Greece, City of Athens, and NGOs Arsis, Praksis, Nostos, and Solidarity Now. Date of extraction: March 2021. Limitations: The collection of data on refugees and asylum seekers presents challenges due to constant changes.
- 5 ADDMA, City of Athens. Date of extraction: April 2022.
- 6 Ministry of Interior, ICAP Hellenic Statistical Authority (ELSTAT). Date of extraction: January 2021, census 2011.
- 7 ICAP Business Services group. Date of extraction: January 2021. Limitations: The validity of the data rests on a process of data collection by ICAP (hence not a registry). This is estimated to include around 80% of legal form businesses, around 90% of Ltd. businesses, and self-employed businesses. The number of jobs refers to formal jobs and employees and does not take into account jobs in the informal sector. All of them are active businesses, with different times of update. Possible deviation mainly in reference to personal businesses.
- 8 Ministry of Interior (Department of Integrated Information System of Human Resources and Statistical Analysis, Registry of Human Resources, General Directory of Human Resources of the Greek Public Sector). Date of extraction: January 2021. Limitations: The validity of the data rests on the input of public institutions and organisations. Data includes employees in the independent public authorities, legal organisations, decentralised administrations, and local governments. This does not include the military sector, for security reasons. Possible deviation due to short-term contractors.

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