

URBANISATION AND URBAN CHANGE

positioning Santiago de Chile

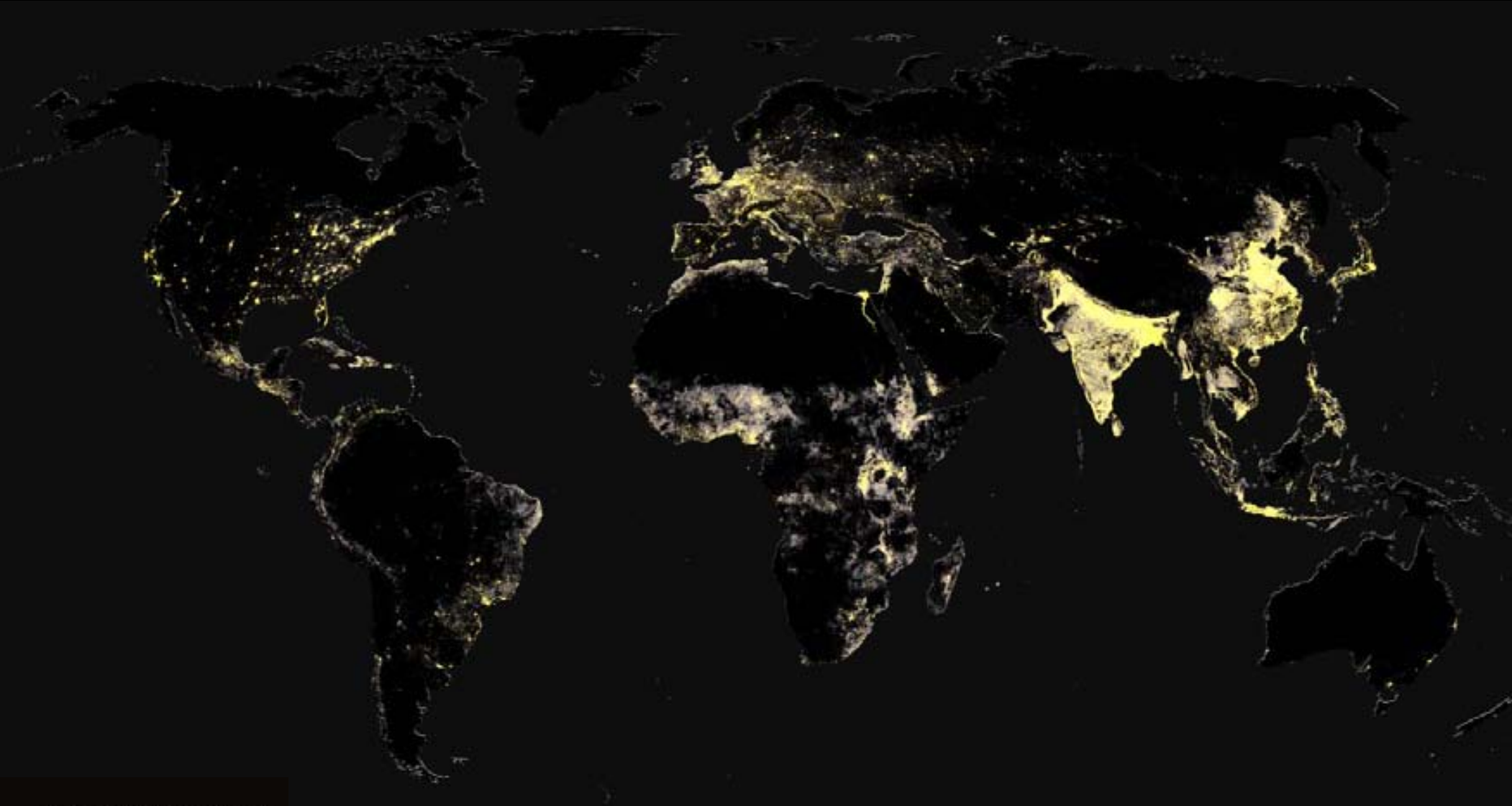


Re-evolucion Urbana, International Conference
Santiago, 08 October 2014

Philipp Rode, LSE Cities / Urban Age Programme
London School of Economics and Political Science

LSECities

GLOBAL POPULATION DISTRIBUTION



Ambient population density
in people per km²

50,000
2,500
0

0.5%

of the earth's surface
is urbanised

54%

of the world's population
is urban (2014)

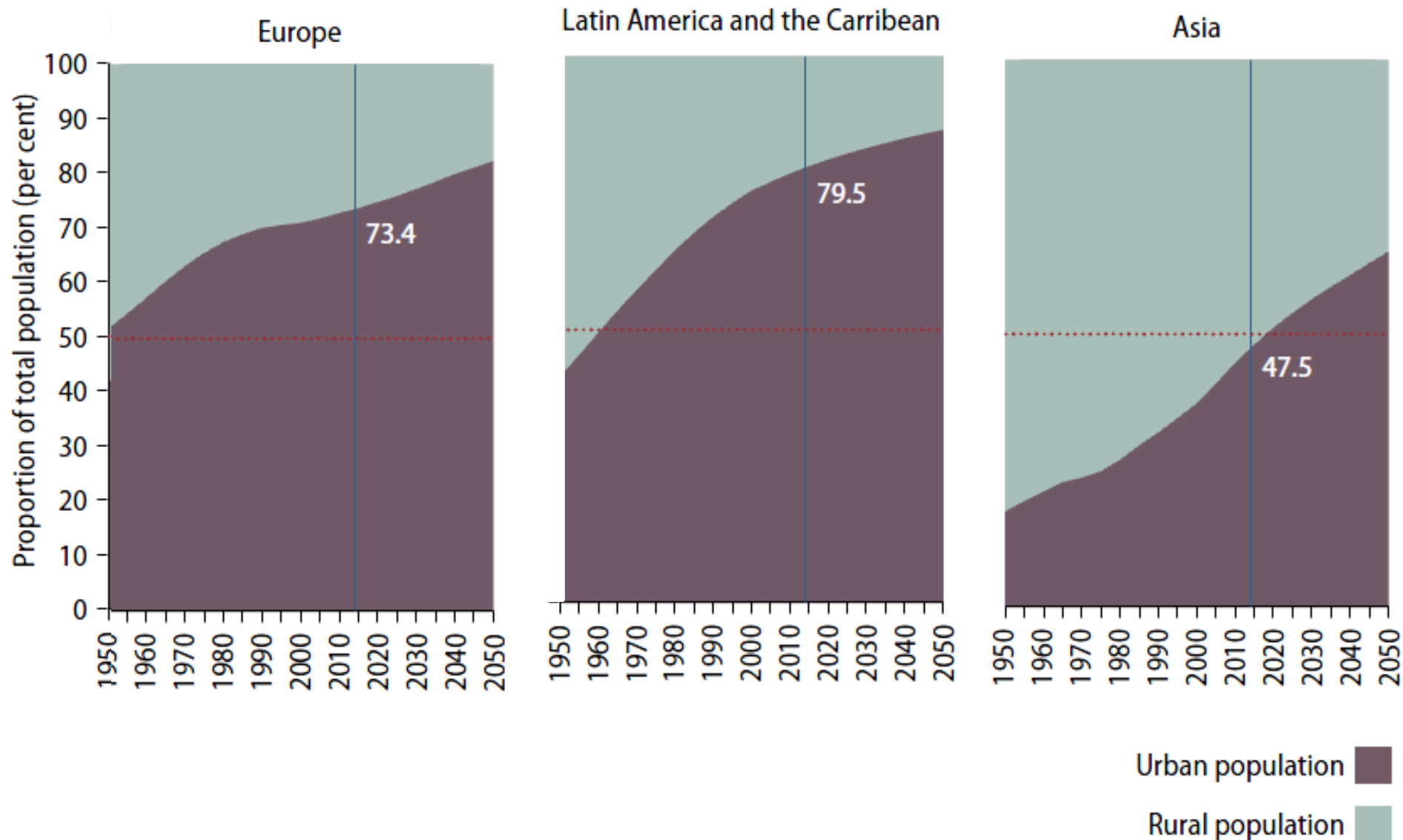
80%

of global economic output
comes from urban areas

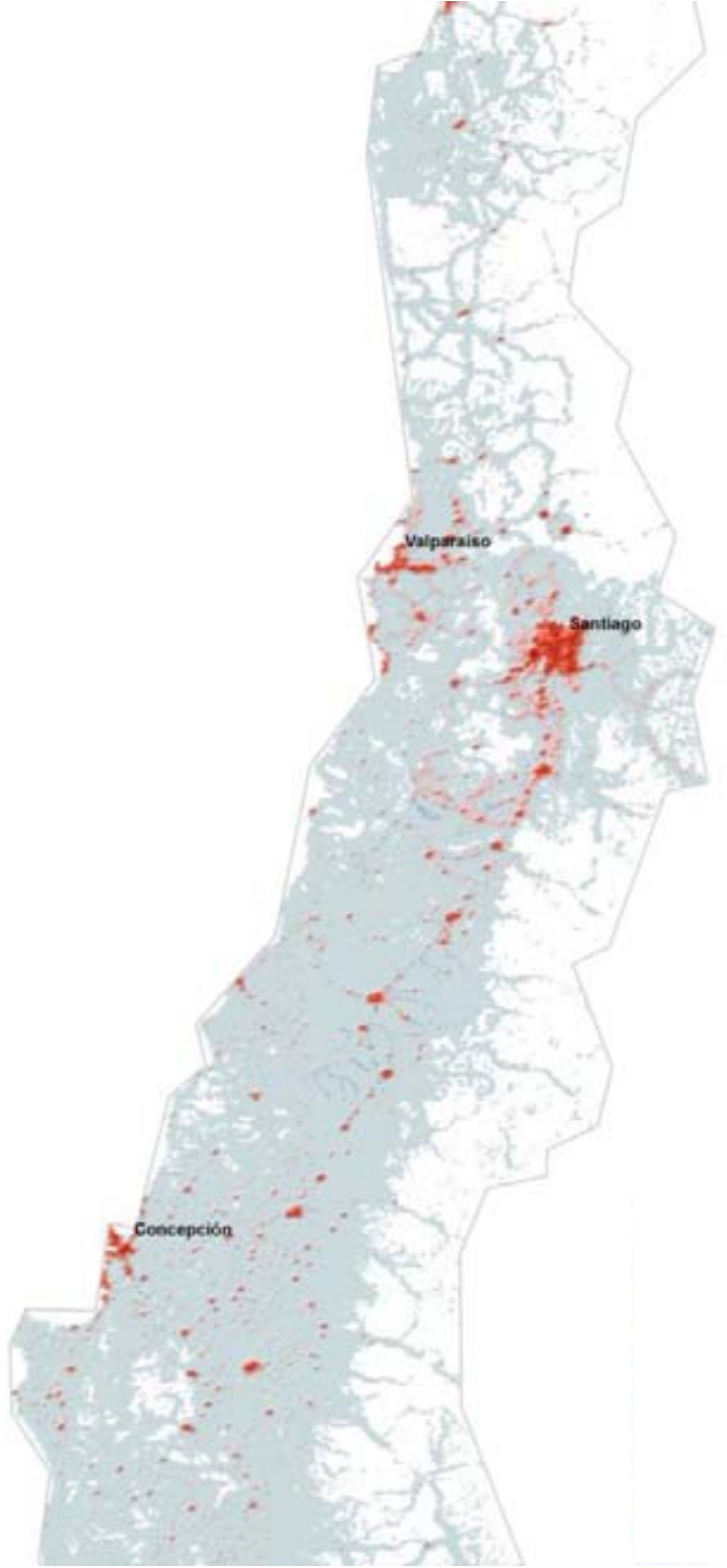


URBAN POPULATION SHARE IN SELECTED WORLD REGIONS, 1950-2050

Source: UN DESA 2014

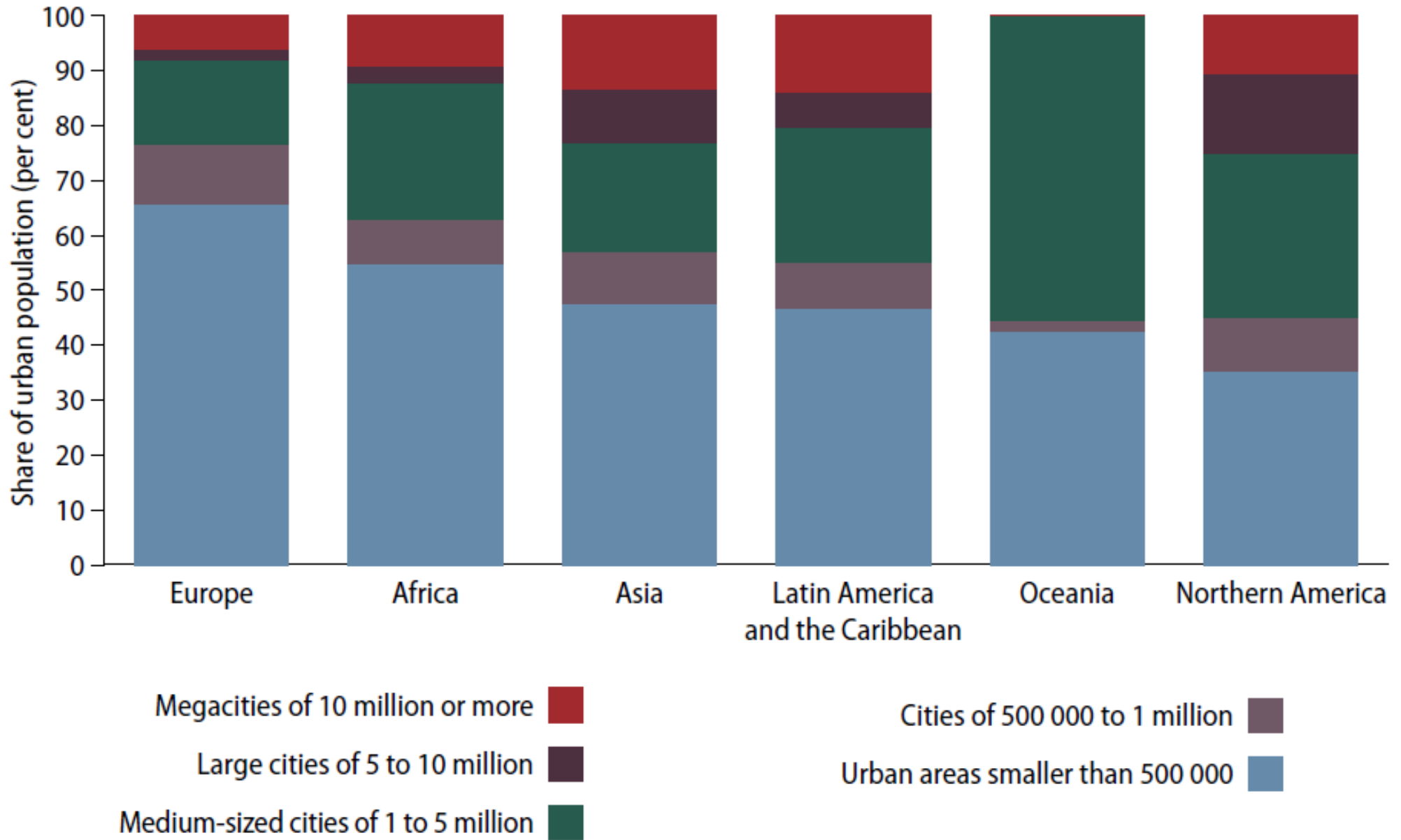


SOUTH AMERICA | CHILE 89% URBAN



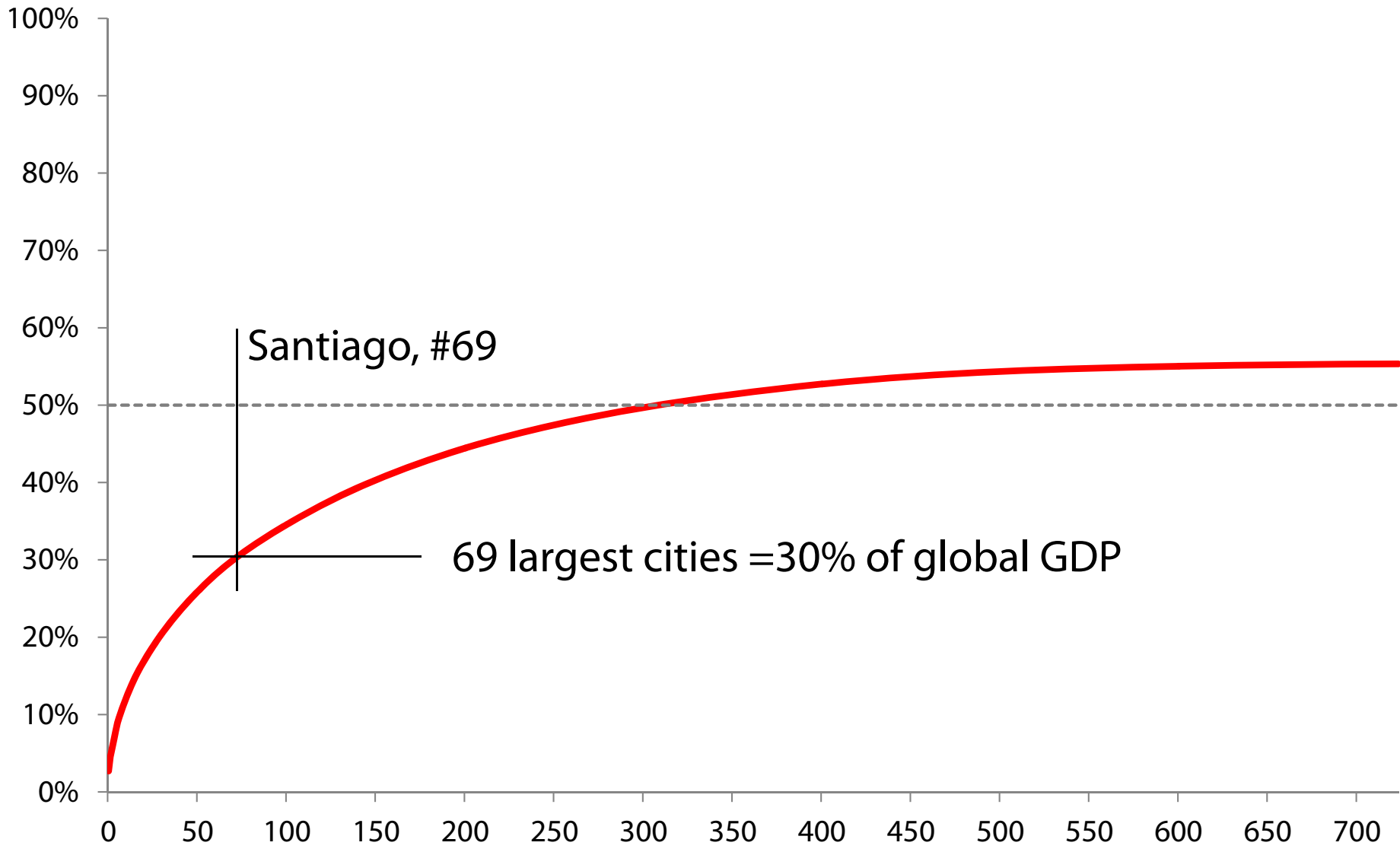
URBAN POPULATION SHARE BY SETTLEMENT SIZE

Source: UN DESA 2014



LARGE CITIES GLOBAL ECONOMIC OUTPUT SHARE (2012)

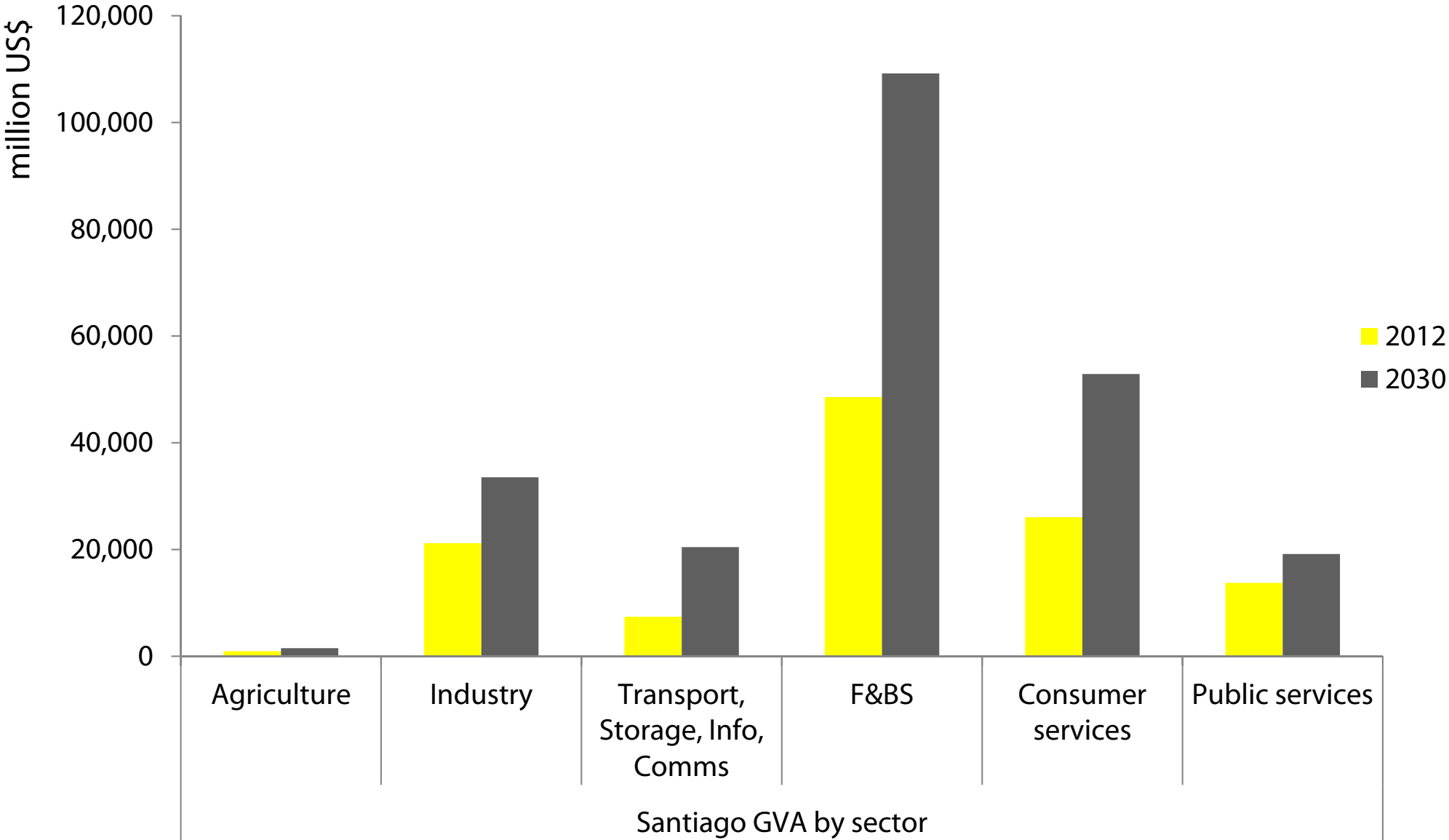
Cumulative contribution to global GDP of cities above 0.5 million



Source: LSE Cities and Oxford Economics 2014

SANTIAGO INDUSTRIAL COMPOSITION BY OUTPUT

Income of Santiago in 2012 and 2030 (measured as Gross Value Added)

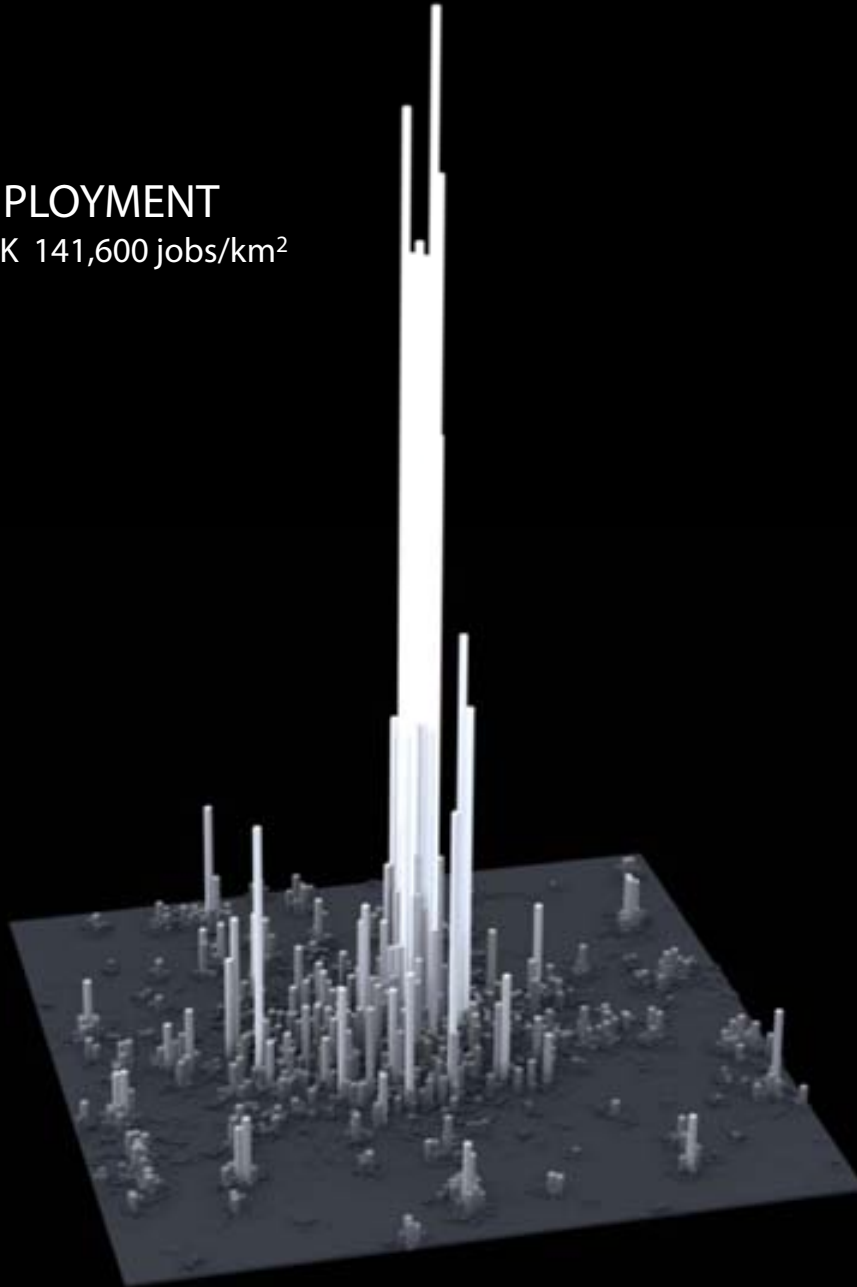


Source: LSE Cities and Oxford Economics 2014

LONDON | LOCATION OF WORKING AND LIVING

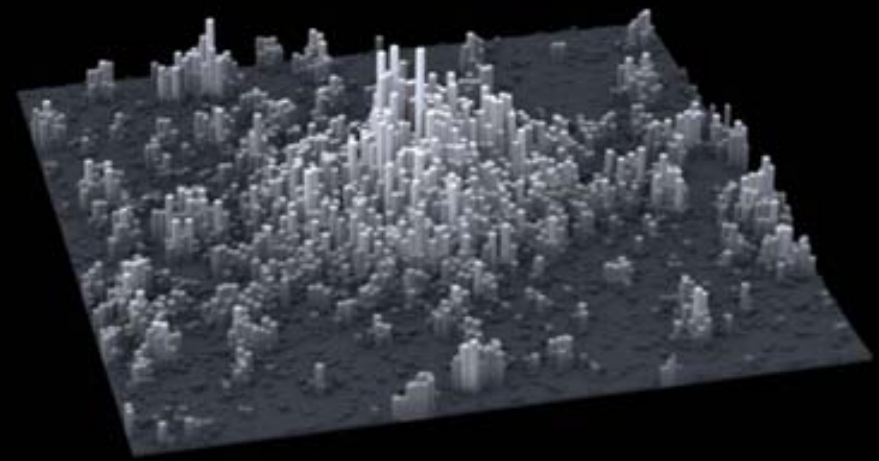
EMPLOYMENT

PEAK 141,600 jobs/km²



RESIDENTS

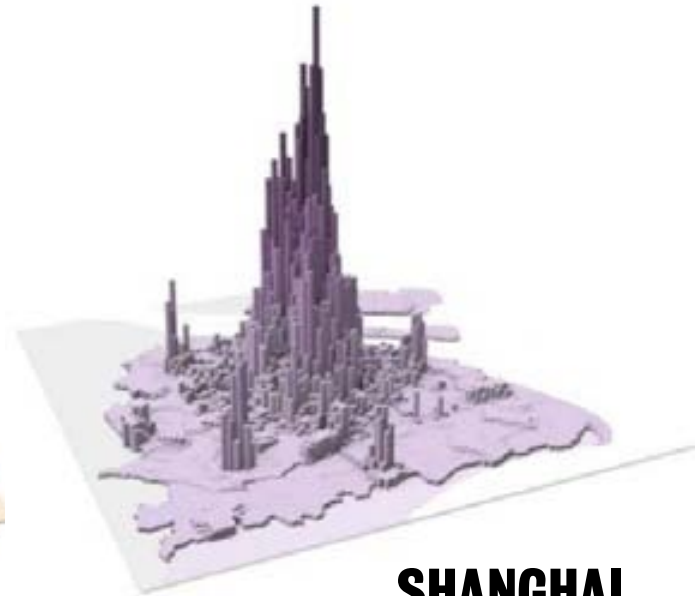
PEAK 27,100 pp/km²



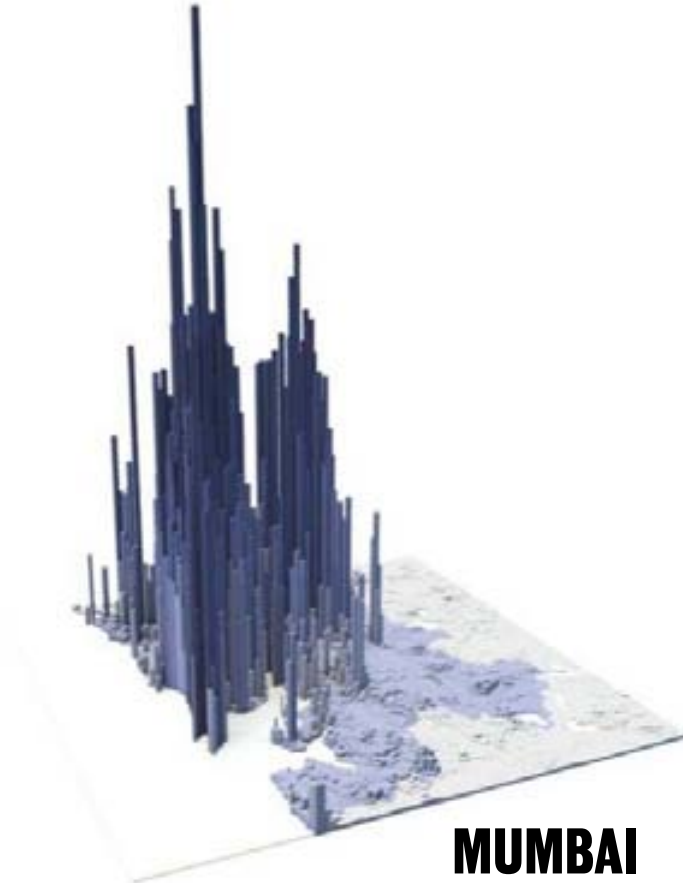
URBAN DENSITY | RESIDENTIAL



SANTIAGO



SHANGHAI



MUMBAI



SÃO PAULO



NEW YORK

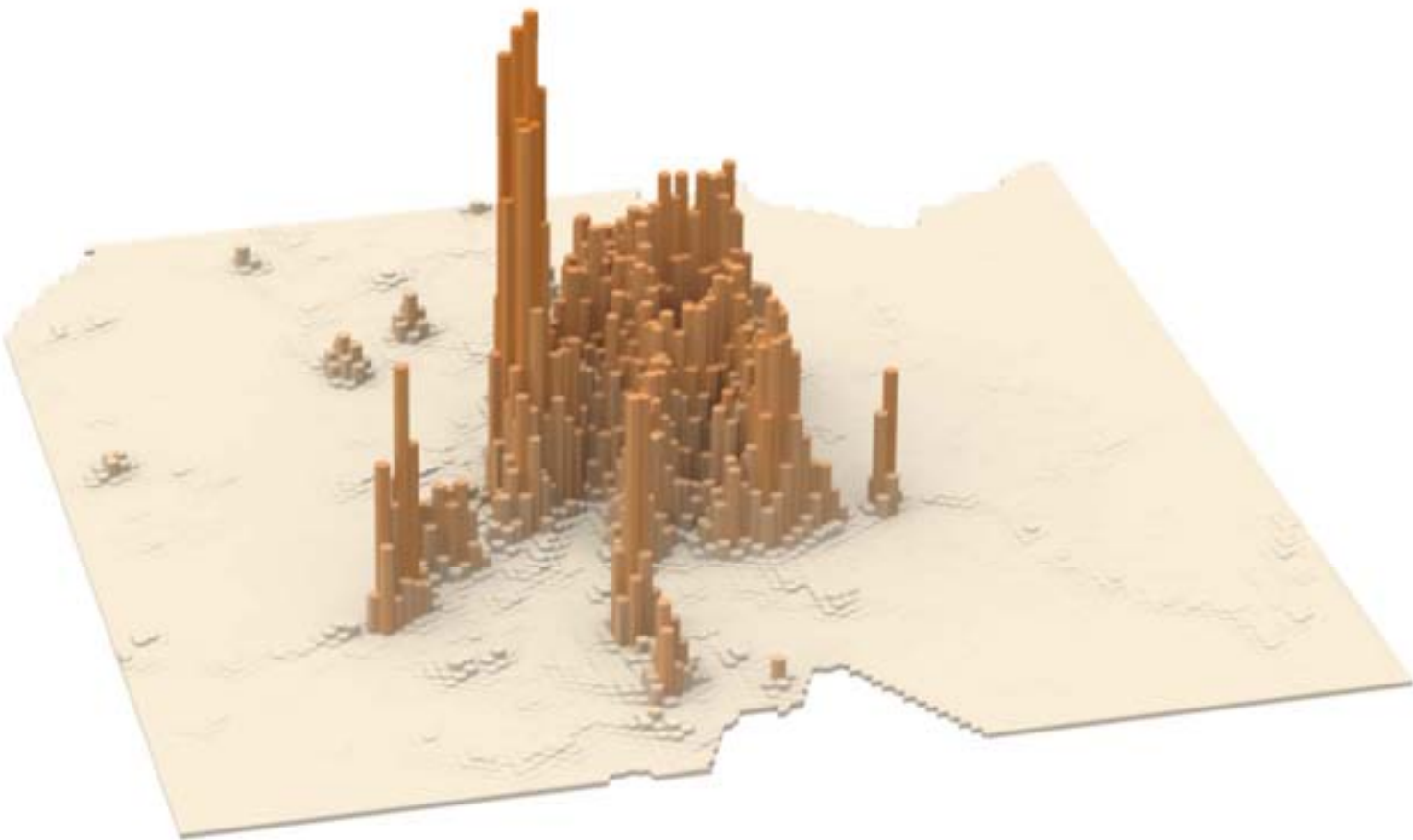


LONDON

SANTIAGO METRO REGION - DENSITY

6.5m
Metro Population

51,800
Max. Density [pers./sqkm]



MUMBAI METRO REGION - DENSITY

19.3m

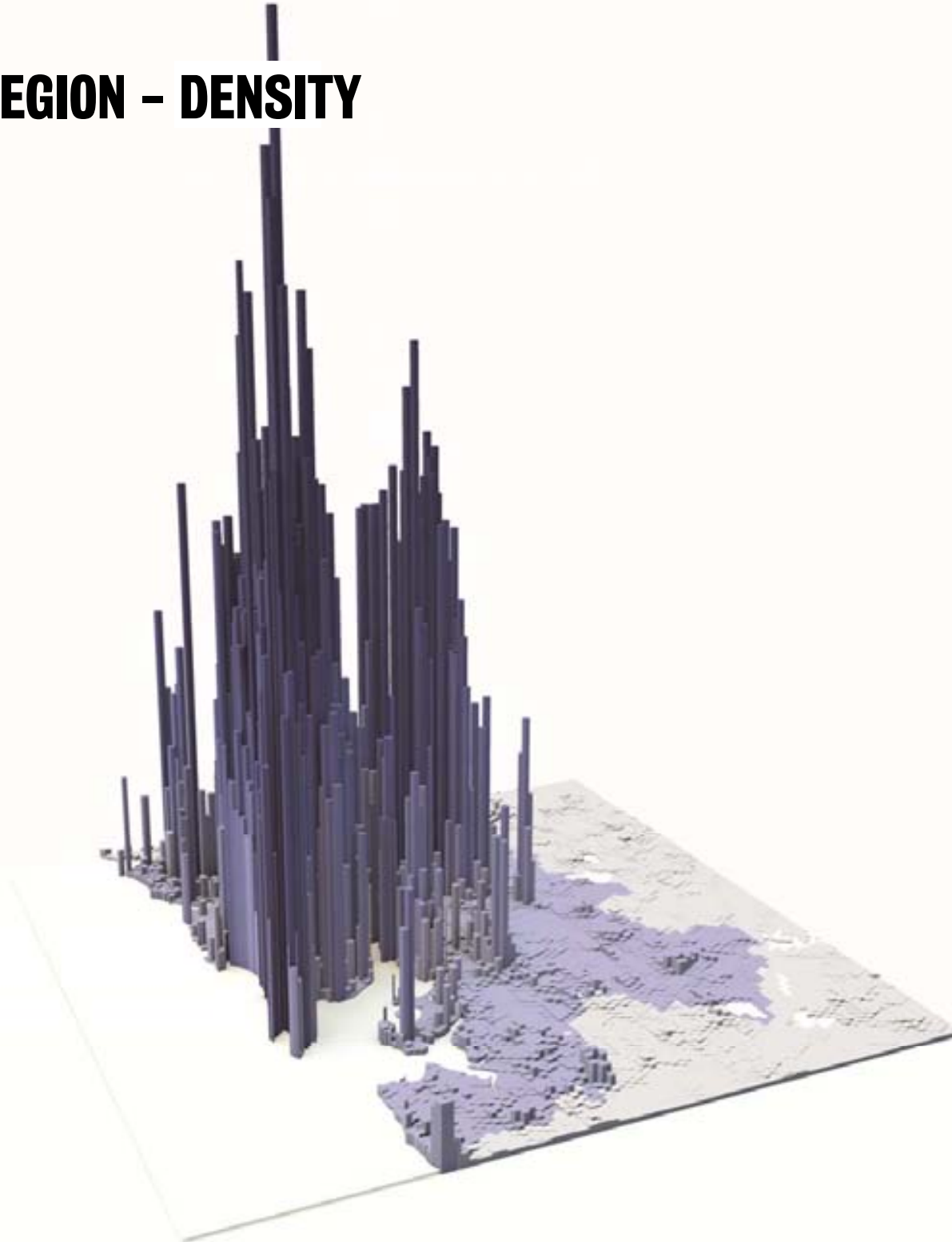
Metro Population

25,316

Avg. density central area
of 10 km radius [pers./sqkm]

121,312

Max. Density [pers./sqkm]



LONDON METRO REGION - DENSITY

19.0m

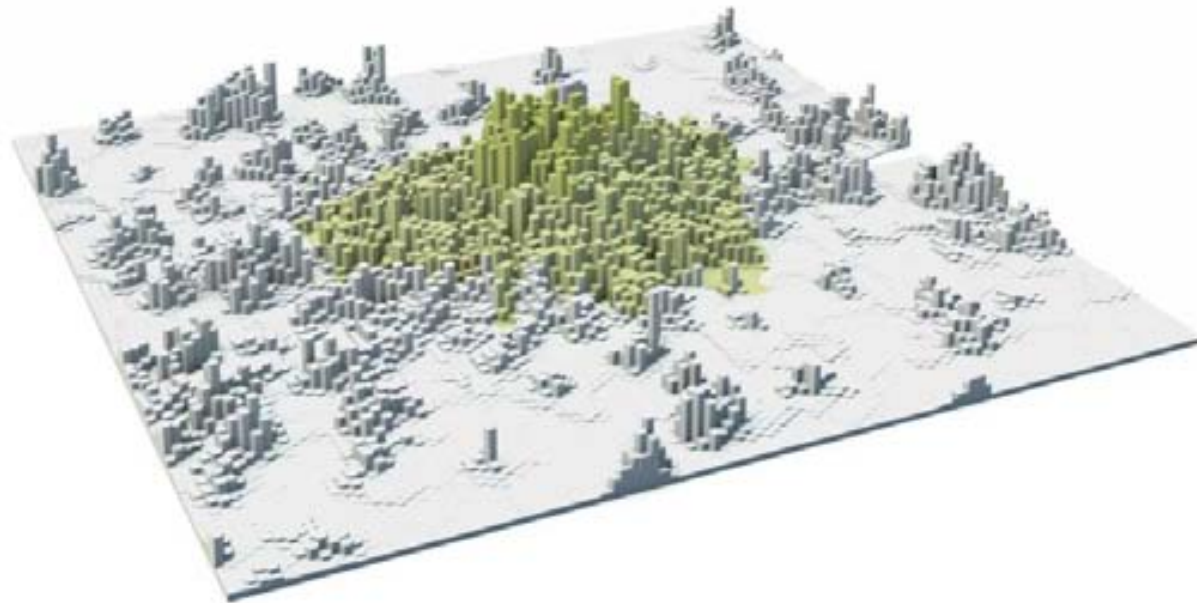
Metro Population

8,326

Avg. density central area
of 10 km radius [pers./sqkm]

27,100

Max. Density [pers./sqkm]











VERTICALISATION

In Shanghai the number of 8 storey building or higher increased from 121 in 1980 to 10,045 in 2005



HORIZONTAL EXPANSION – URBAN SPRAWL

The built-up land in Mexico City grew from 1980 to 2000 by more than 30%



3x increase

of urban land from 2000 to 2030 (Seto et al 2012)

An aerial photograph of a suburban residential neighborhood. The houses are mostly two-story, white with dark roofs, arranged in a grid-like pattern. A road runs through the center of the neighborhood. There are some trees and a swimming pool visible in the lower right corner. The text is overlaid on the top left portion of the image.

US\$400 billion per year
the external costs of sprawl in the United States



60%

to 80% of energy consumption
in urban areas

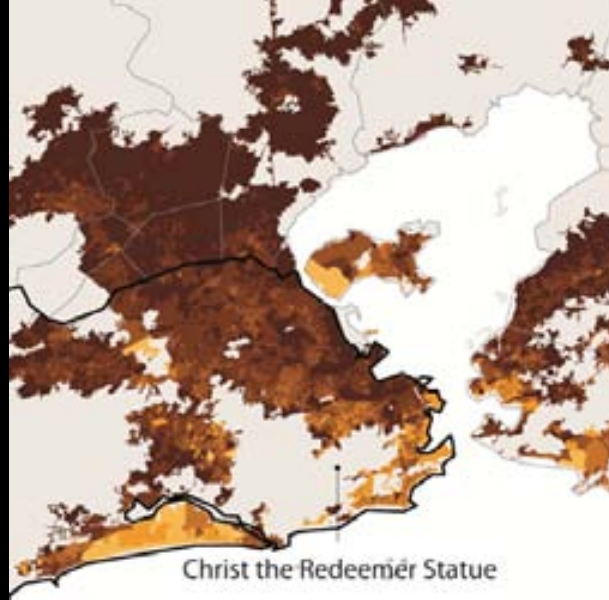
70%

of global energy-related carbon emissions
come from urban areas

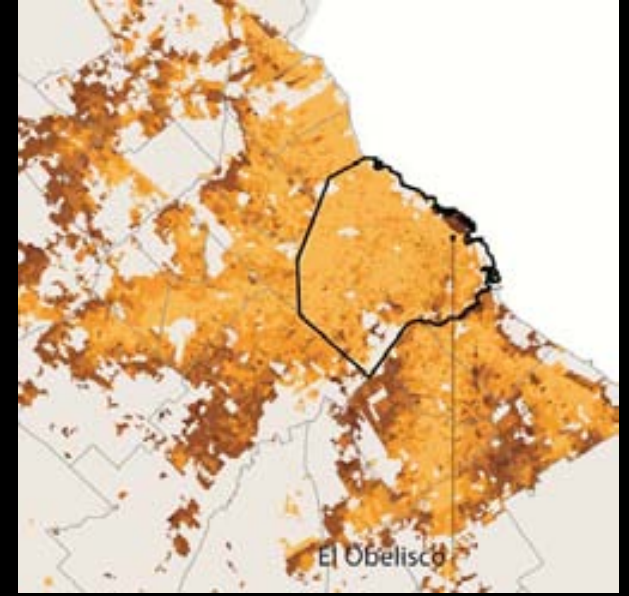
DISTRIBUTION OF THE LEAST EDUCATED



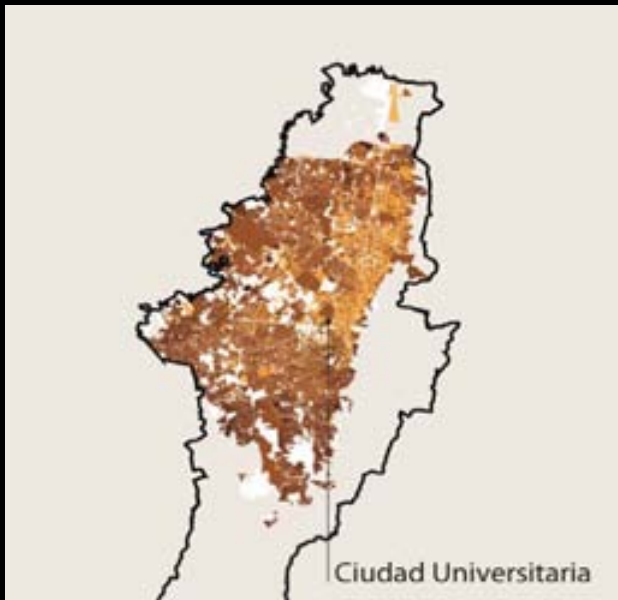
SAO PAULO



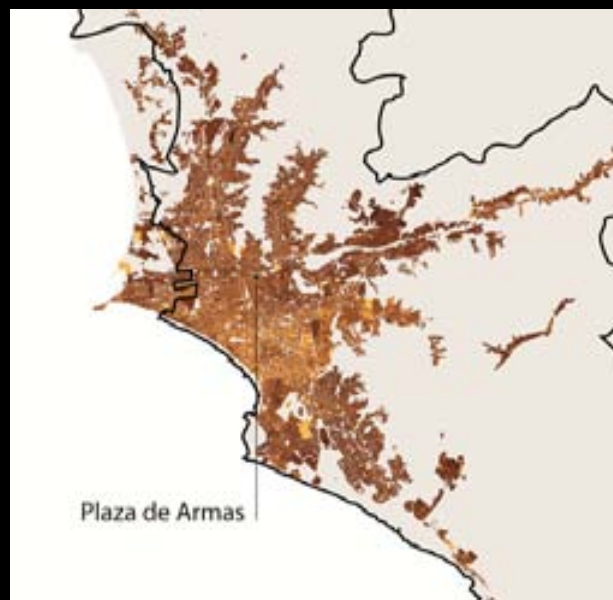
RIO DE JANEIRO



BUENOS AIRES



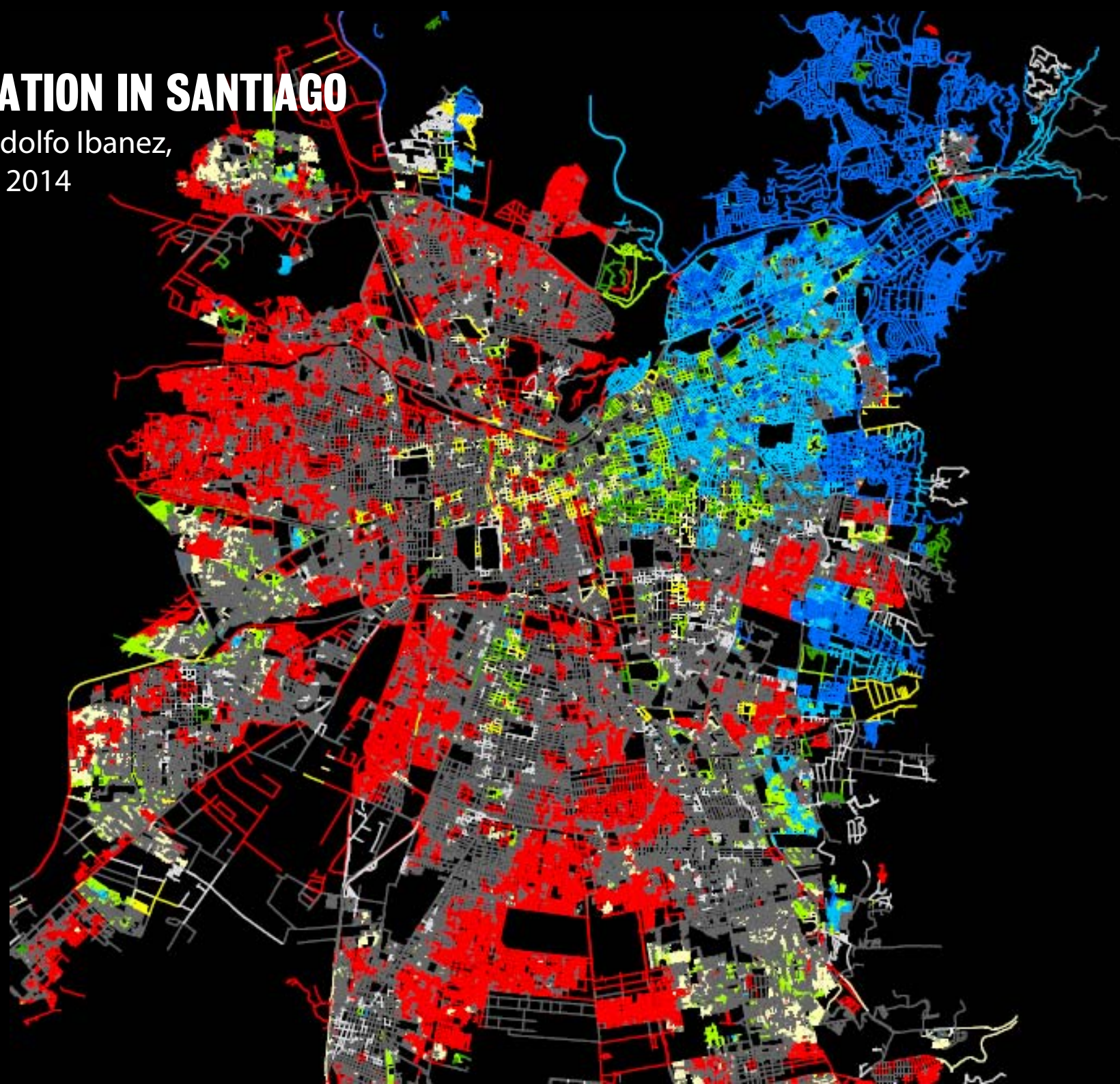
BOGOTA



LIMA

SOCIAL SEGREGATION IN SANTIAGO

Source: Universidad Adolfo Ibanez,
Inteligencia Territorial 2014



Grado de Segregación / Integración por GSE	ABC1	C2	C3	D	E
Segregación Alta	Blue	Green	Yellow	Orange	Red
Segregación Media	Light Blue	Light Green	Light Yellow	Light Orange	Light Red
Integración Media	Grey	Grey	Grey	Grey	Grey
Integración Alta	Light Grey	Light Grey	Light Grey	Light Grey	Light Grey

URBAN FORM AND INFRASTRUCTURE: LOCKING IN MOBILITY PATTERNS

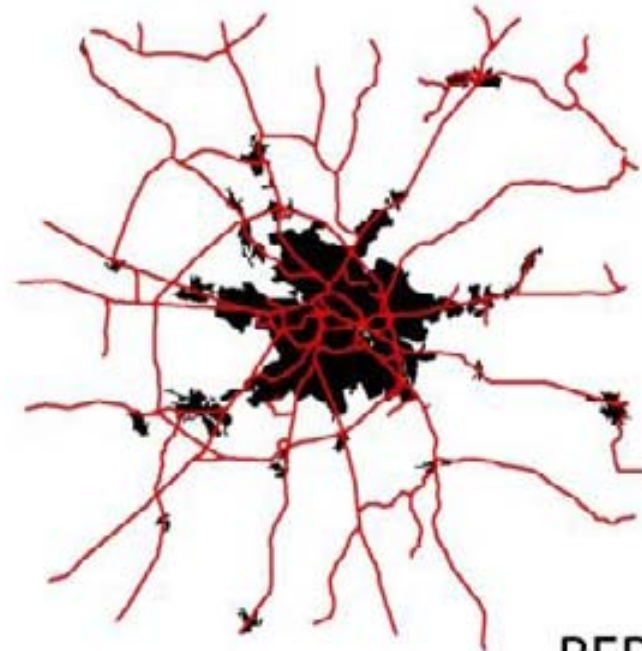
Source: LSE Cities 2014



ATLANTA

Pop 5,430,549
GDP per capita 54,853\$

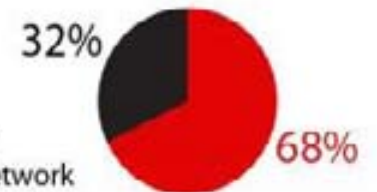
580 people per km² (average)
5% population living 500m from rail based public transport network



BERLIN

Pop 4,280,544
GDP per capita 37,147\$

3,930 people per km² (average)
33% population living 500m from rail based public transport network



LEGEND:

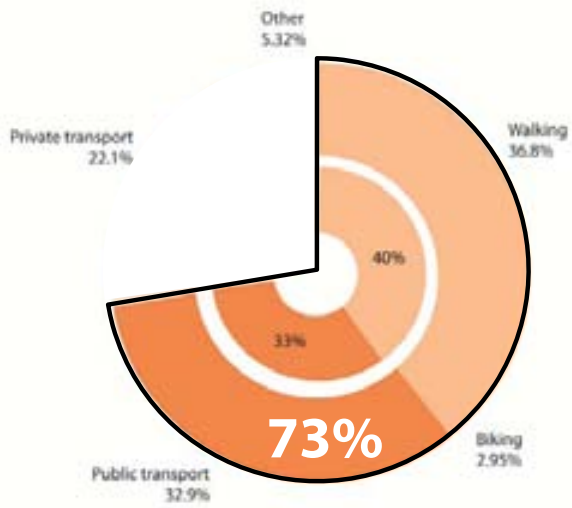
- urban area
- rail based public transport network



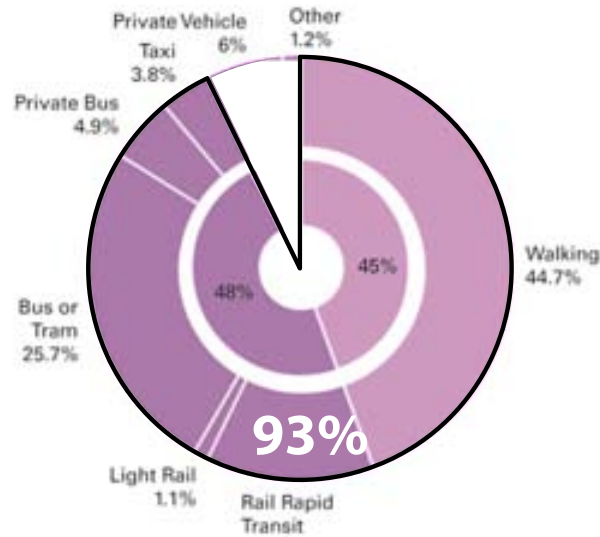
Modal share in political city:



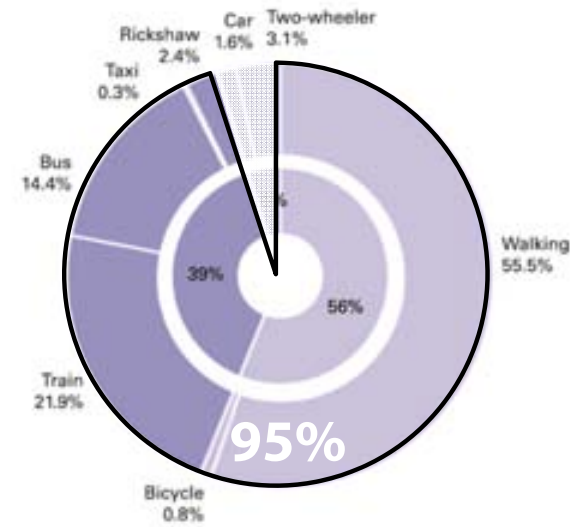
THE SHARE OF PUBLIC AND NON-MOTORISED TRAVEL



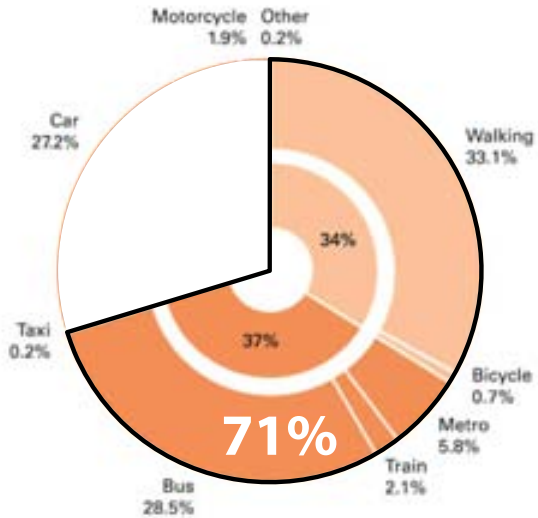
SANTIAGO



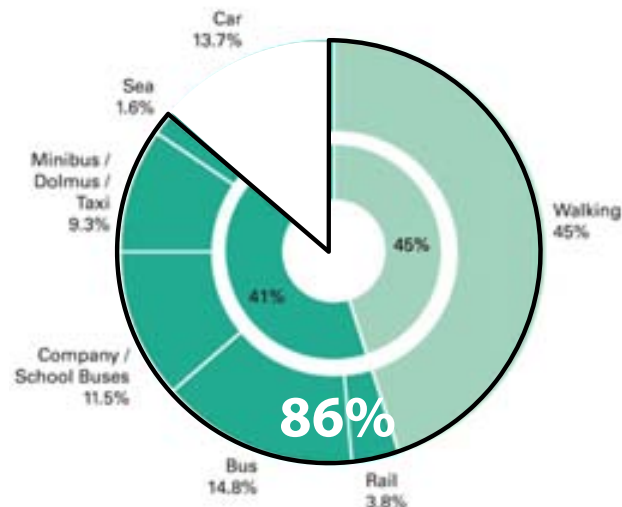
HONG KONG



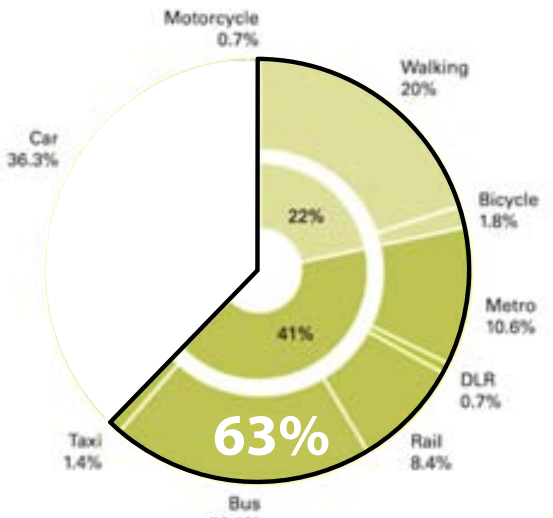
MUMBAI



SÃO PAULO



ISTANBUL



LONDON





CONGESTION: LOSS OF PRODUCTIVITY IN URBAN AREAS

Up to 15% of GDP in Beijing (Creutzig and He 2009);

Buenos Aires 3.4%, Mexico City 2.6% and Dakar 3.4% (World Bank 2002)



LOCAL AIR POLLUTION

For 311 cities, 86% exceed WHO air quality guidelines equating to 730,000 premature deaths



compact, connected, coordinated
urban growth, built around mass public transport, can create cities that
are economically dynamic, healthier, and that have lower emissions.

GOVERNING CITIES – THE METROPOLITAN DILEMMA

LONDON



NEW YORK



MUMBAI



SHANGHAI



ISTANBUL



SAO PAULO



WHO IS LEADING KEY POLICY SECTORS?

Level of influence of different tiers of government

