

SUSTAINABLE CITIES INDEX

Moving towards a more sustainable city



We are living in the “Age of the City”



54% of world population

70-80% of economic output



80% of energy consumption

80% of greenhouse gas production





But are we living in the age of the sustainable city?



**People
Planet
Profit**



Are cities
meeting their
duty towards
their **citizens**,
the
environment,
and the
economy?

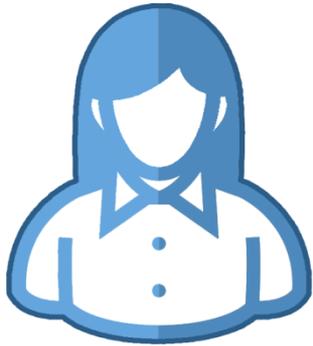
The Sustainable Cities Index

51 prominent cities



The Sustainable Cities Index

Assessment of urban sustainability:



People

Property prices
Transport infrastructure
Green spaces
Health
Education
Income equality
Work-life balance
Dependency ratio
Literacy



Planet

Energy consumption
Solid waste management
Renewable energy
Recycling
Greenhouse gas emissions
Natural catastrophes
Drinking water
Sanitation
Air pollution



Profit

Transport infrastructure
Energy efficiency
Cost of property
Ease of doing business
Importance in global economic
networks
Goods and services costs
GDP

Overall		People	Planet	Profit
1	Frankfurt	9	1	1
2	London	3	12	2
3	Copenhagen	5	3	11
4	Amsterdam	7	6	4
5	Rotterdam	1	5	19
6	Berlin	10	2	26
7	Seoul	2	13	6
8	Hong Kong	6	20	3
9	Madrid	14	4	10
10	Singapore	17	7	9
11	Sydney	4	19	16
12	Toronto	16	9	18
13	Brussels	11	16	8
14	Manchester	12	15	21
15	Boston	13	22	14
16	Paris	21	11	29
17	Melbourne	8	24	5
18	Antwerp	15	14	27
19	Birmingham	18	10	30
20	Chicago	19	30	12

Sources

World Bank World Development Indicators

QS World University rankings

Siemens Green City Index

Municipality websites

International Labour Organization

UBS

OECD

Numbeo

TomTom traffic index

World Metro Database

Skytrax World Airport Awards

Energy Information Administration

EM-DAT: International Disaster Database

World Health Organization Ambient Air
Pollution Database

Carbon Disclosure Project

World Bank

WHO/Unicef Joint Monitoring Program for
Water Supply and Sanitation

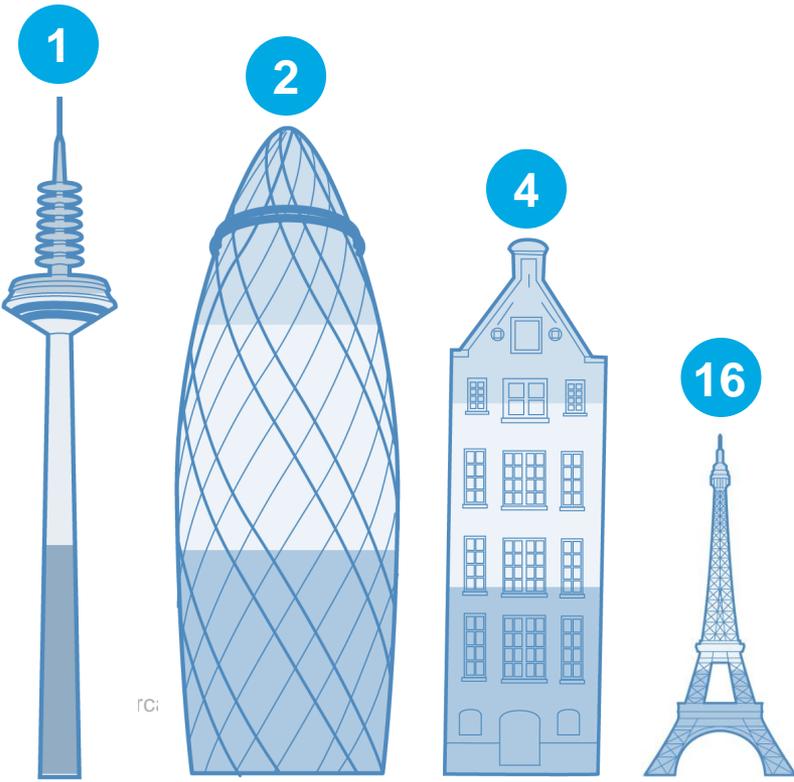
Energy Information Administration

Globalization and World Cities (GaWC)
Research Network

Brookings Institute

World Bank Ease of Doing Business Index

Europe in the lead



Overall

1	Frankfurt
2	London
3	Copenhagen
4	Amsterdam
5	Rotterdam
6	Berlin
7	Seoul
8	Hong Kong
9	Madrid
10	Singapore

1

Frankfurt

The world's most
sustainable city



9



1



1

Amsterdam: the best balance

4



7
6
4

Antwerp

Good performance, but scores lower on “Profit” because of its smaller scale



18



15



14



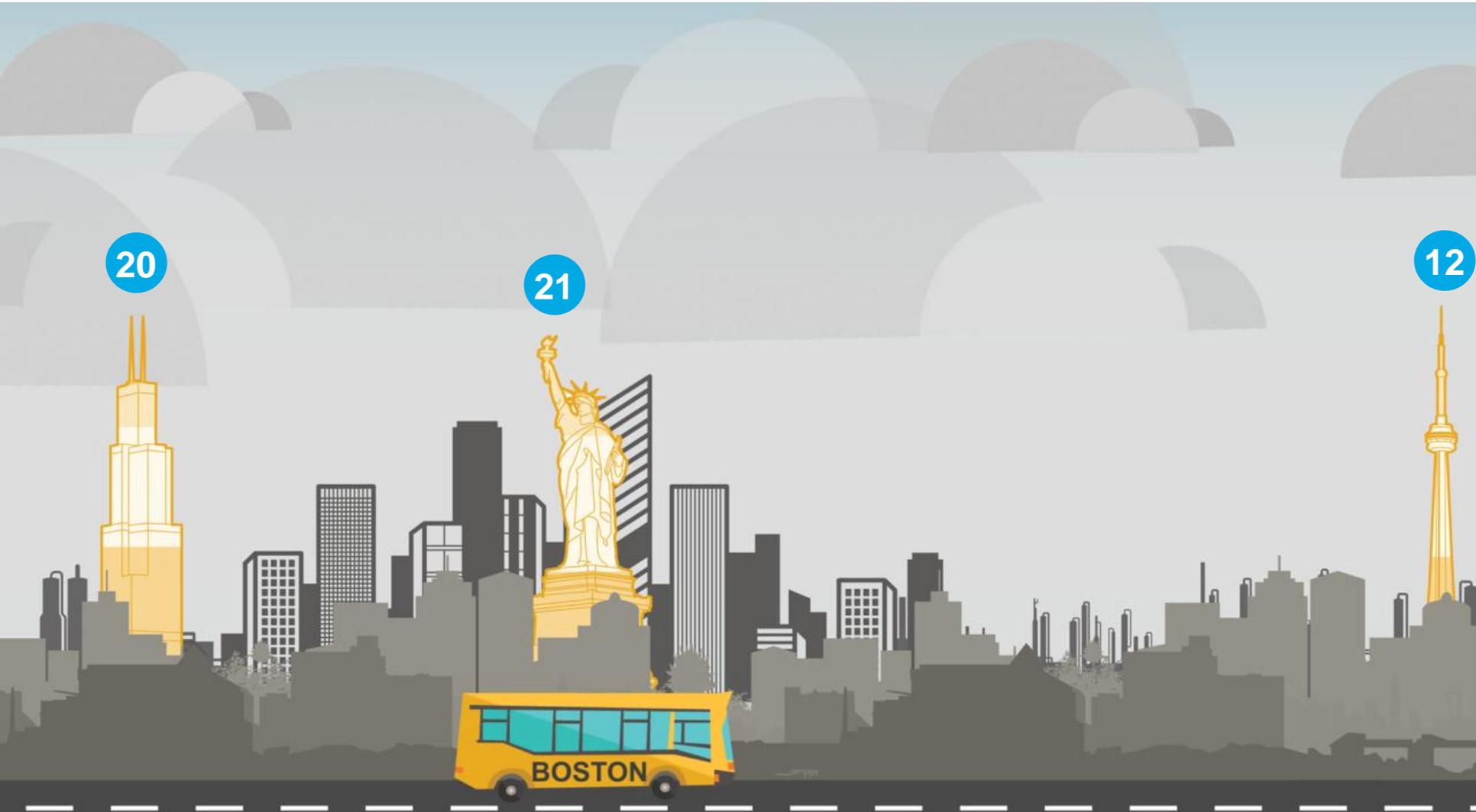
27

Emerging economies

Low ranking, poor environmental performance

Overall		People	Planet	Profit
37	Istanbul	41	33	37
38	Johannesburg	42	36	33
39	Buenos Aires	37	26	43
40	Beijing	20	47	38
41	Rio de Janeiro	47	18	47
42	Doha	35	51	31
43	Moscow	32	42	46
44	Jeddah	38	40	42
45	Riyadh	43	41	45
46	Jakarta	45	39	44
47	Manila	48	35	41
48	Mumbai	49	37	48
49	Wuhan	46	49	51
50	New Dehli	50	50	49
51	Nairobi	51	46	50

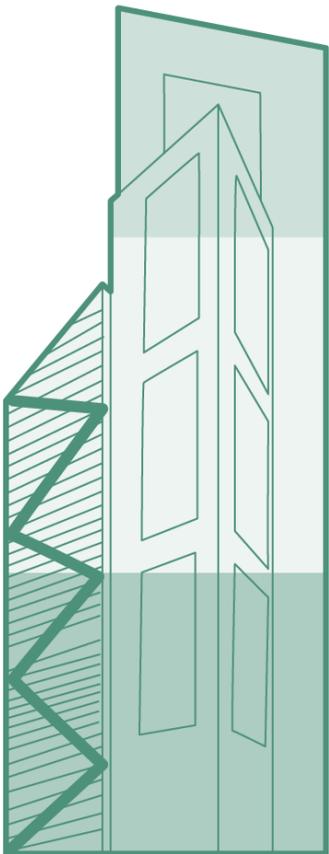
North America: far behind Europe



Asia pacific

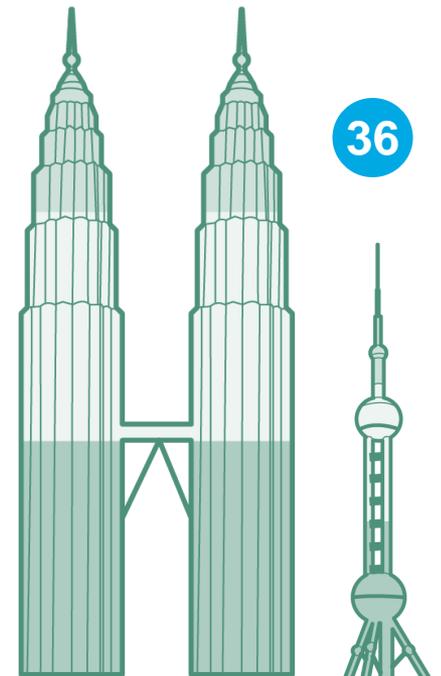
A tale of two halves

10



27

36



Cities perform stronger
on **Planet** and **Profit**
than on **People** factors

Cities are not meeting
their duty to citizens as
human settlements



What are the challenges?



Work-life balance

Correlation
between
high quality
of education
and bad
work-life
balance

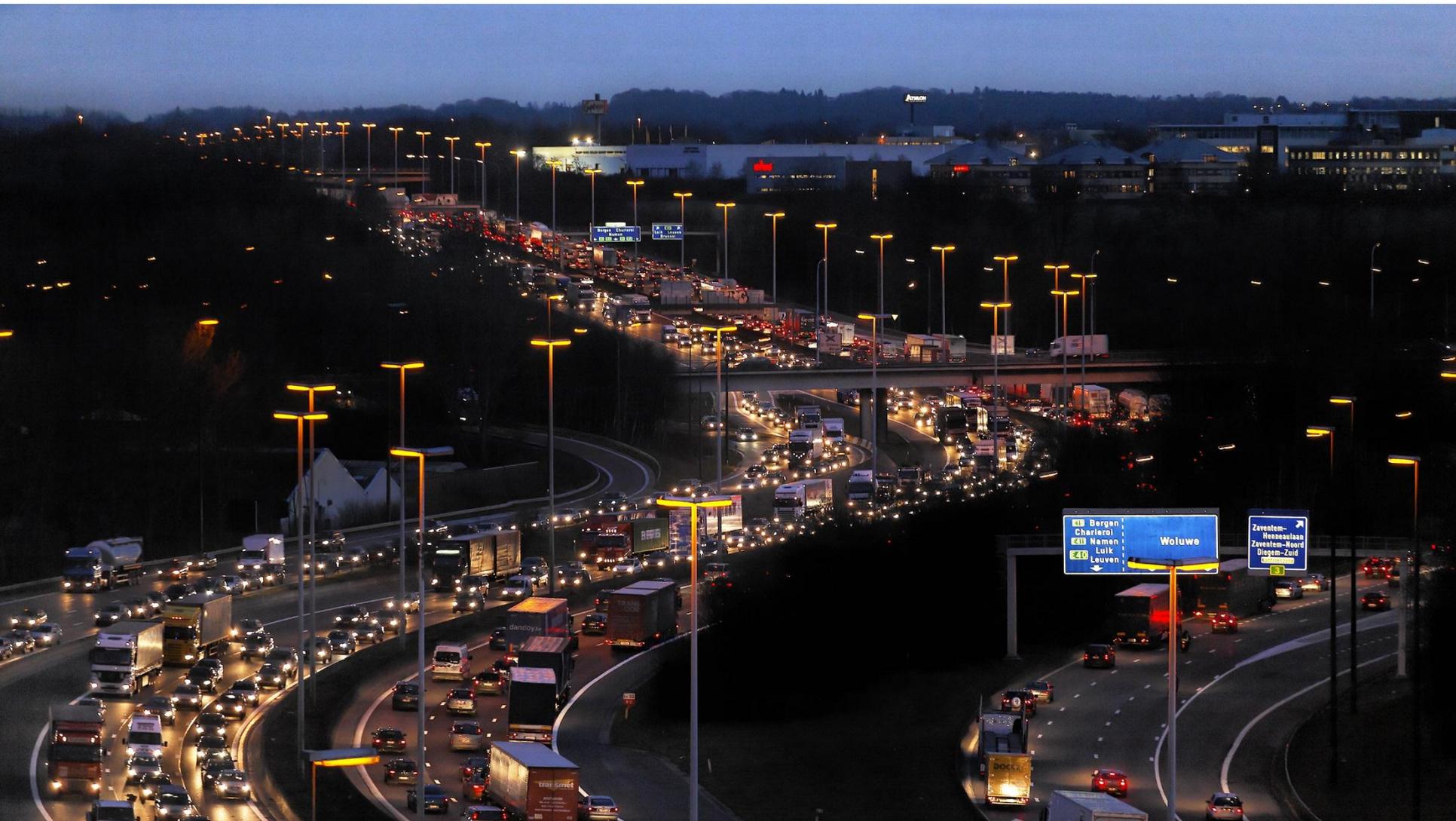
Cost of property is becoming high in global economic centers



Population growth puts pressure on cities



Need for **infrastructure investments**



The fastest growing cities are the least prepared for growth

Sustainable Cities Index rank	City	Pop. (1,000) 2010	Pop. (1,000) 2030	Expansion 2010-2015	Expansion 2010-2030
42	Doha	529	837	36%	58%
34	Dubai	1,778	3,471	36%	95%
33	Abu Dhabi	879	1,608	30%	83%
40	Beijing	16,190	27,706	26%	71%
45	Riyadh	5,227	7,940	22%	52%
51	Nairobi	3,237	7,140	21%	121%
36	Shanghai	19,980	30,751	19%	54%
44	Jeddah	3,452	4,988	18%	44%
27	Kuala Lumpur	5,810	9,423	18%	62%
38	Johannesburg	7,992	11,573	18%	45%

Every city is unique

No utopian city
exists

Index shows where
cities can learn from
one another

Smart solutions will
be crucial



About Arcadis

- The global leading design and consultancy firm for natural and built assets
- 28,000 people
- 3 billion euros of revenues



CSR Commitment

To underline our commitment to operating our business in a socially responsible and sustainable way we have a joint vision and a global policy for Corporate Social Responsibility (CSR).

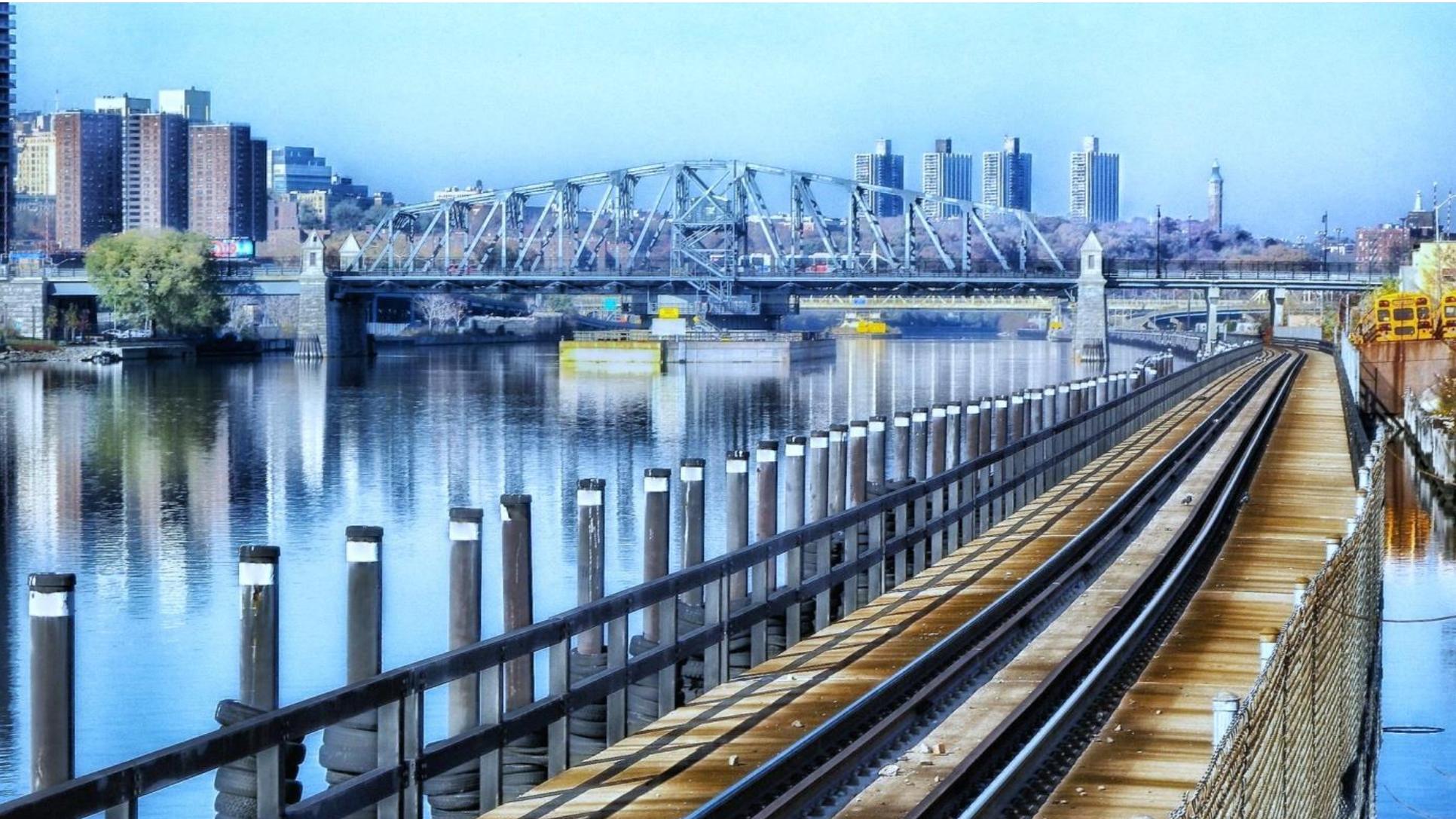
We support UN-Habitat with knowledge and expertise to improve the quality of life in rapidly growing cities around the world.



A “smart city” in Brussels



A climate resilient metro in New York



Development of central Lyon, France



A new eco-city in Tianjin, China



Station Rotterdam Centraal



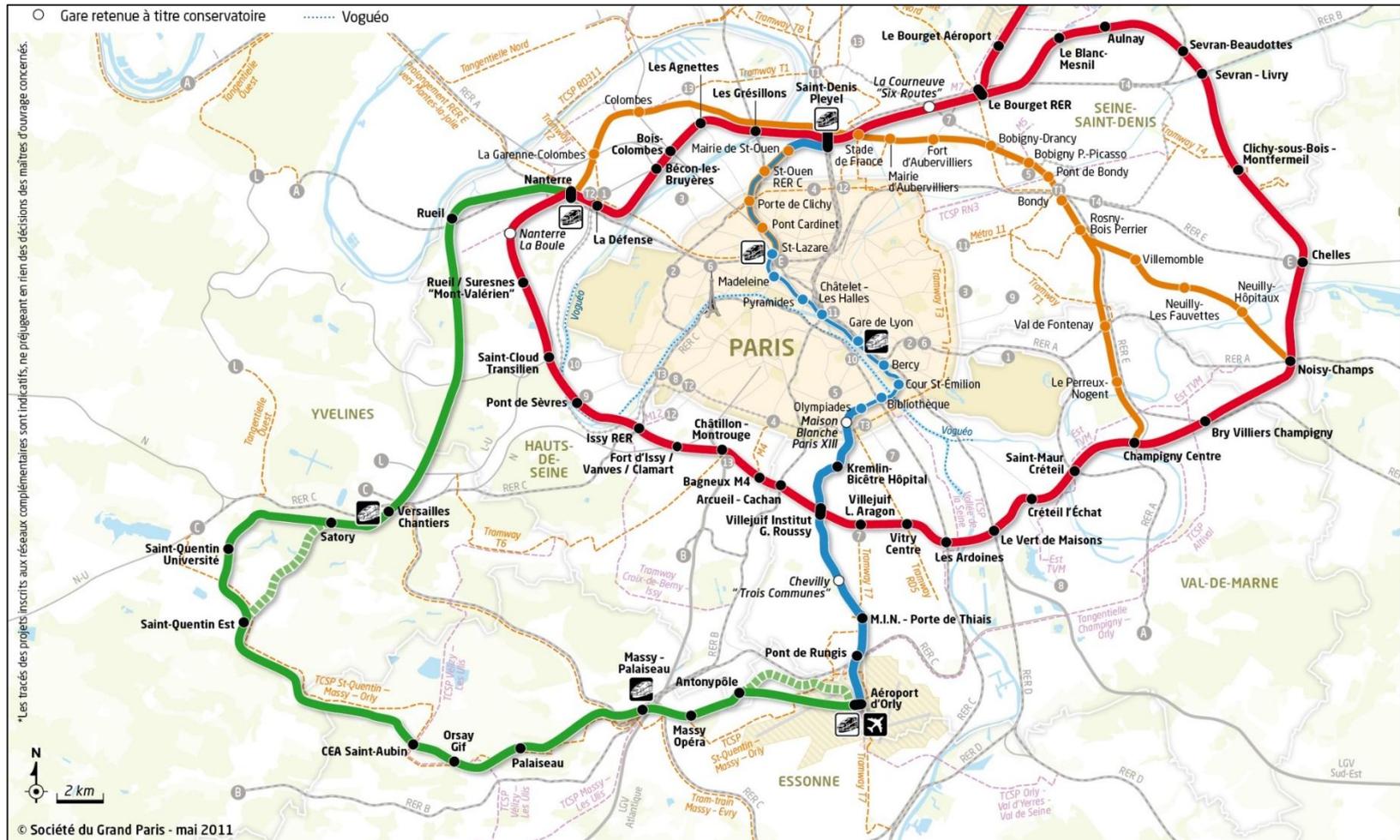
Metro network of Santiago, Chile



A2 tunnel in Maastricht, the Netherlands



Paris metro extension



Arcadis

Improving quality of life