

WORDS PAUL TOSTEVIN, DIRECTOR, & LUCY PALK, ANALYST,
SAVILLS WORLD RESEARCH

Berlin hosted the first-ever UN
Conference of the Parties (COP)
in 1995 and is a frontrunner in
the race to carbon neutrality

The race for carbon neutrality

Cities have a vital role to play in achieving the UN's stated objective of a carbon neutral world by 2050. Savills World Research examines how cities, local governments, organisations, citizens and the real estate industry are planning to implement change and identifies the cities with the most ambitious net-zero goals

CITIES SET THEIR SIGHTS ON NET ZERO

By 2030, approximately 60% of the world's population will live in cities, according to the UN's World Cities Report 2020. It is therefore vital that these urban centres play a leading role in the quest for a net-zero future.

Cities currently consume 78% of the world's energy and produce more than 60% of greenhouse gas emissions. Recognising the need for immediate change, cities initially led countries in setting net-zero carbon targets. The built environment is at the heart of achieving this. The World Green Building Council comprises more than 70 members around the globe, focused on making the building and construction sector more sustainable. This demonstrates the real estate industry's commitment to creating cleaner, greener and smarter cities.

Data compiled by Savills World Research show that, prior to 2019, a greater proportion of cities were setting net-zero targets in comparison with countries. Since the COP26 climate conference in November 2021, countries have overtaken cities as more nations were encouraged to set their own targets. However, many cities continue to develop more ambitious targets than the countries in which they are located. New York City, for example, remained committed to the principles of the Paris Agreement when the

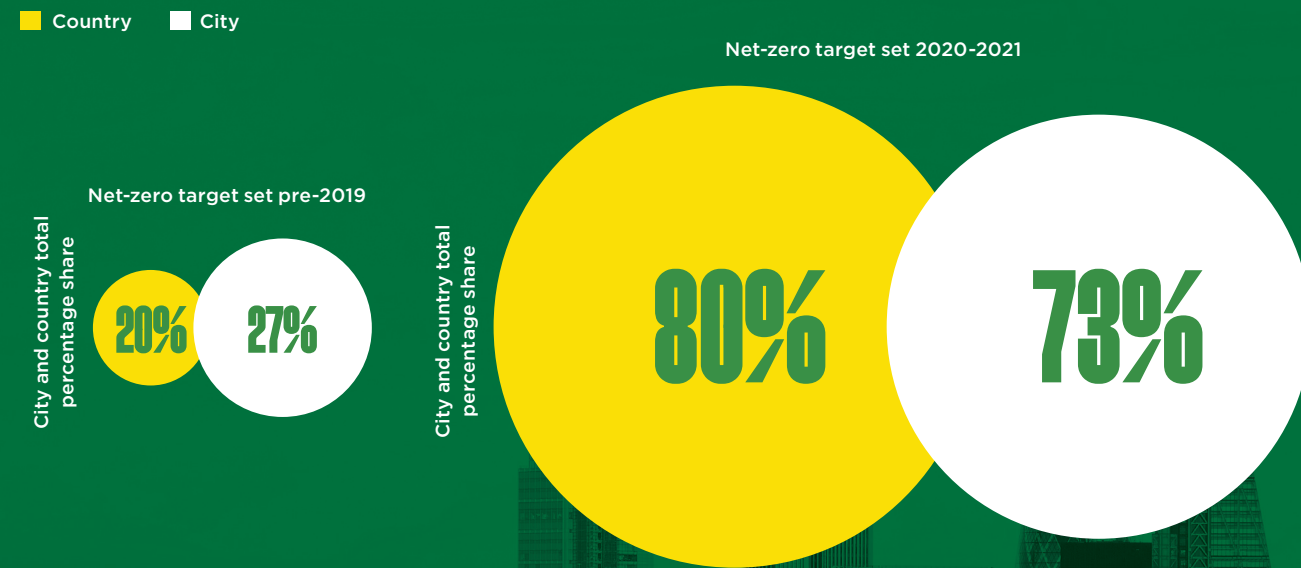
United States withdrew in 2017, while Barcelona's Municipal Council approved an ambitious plan to reduce the city's greenhouse gas emissions by 45% by 2030, four years before Spain's congress approved the country's overall roadmap to carbon neutrality.

NORTH AMERICAN AND EUROPEAN CITIES ARE LEADING THE WAY

Historically, European and North American cities have been some of the biggest net contributors of carbon. North American and European cities are now leading the way to net zero, with a greater proportion of cities in these regions setting definitive end targets than elsewhere in the world. The data outlines that 38% of North American and European cities have net-zero targets, compared with 18% in Latin America, 17% in Sub-Saharan Africa, 14% in Asia Pacific, and just 4% in the Middle East and North Africa.

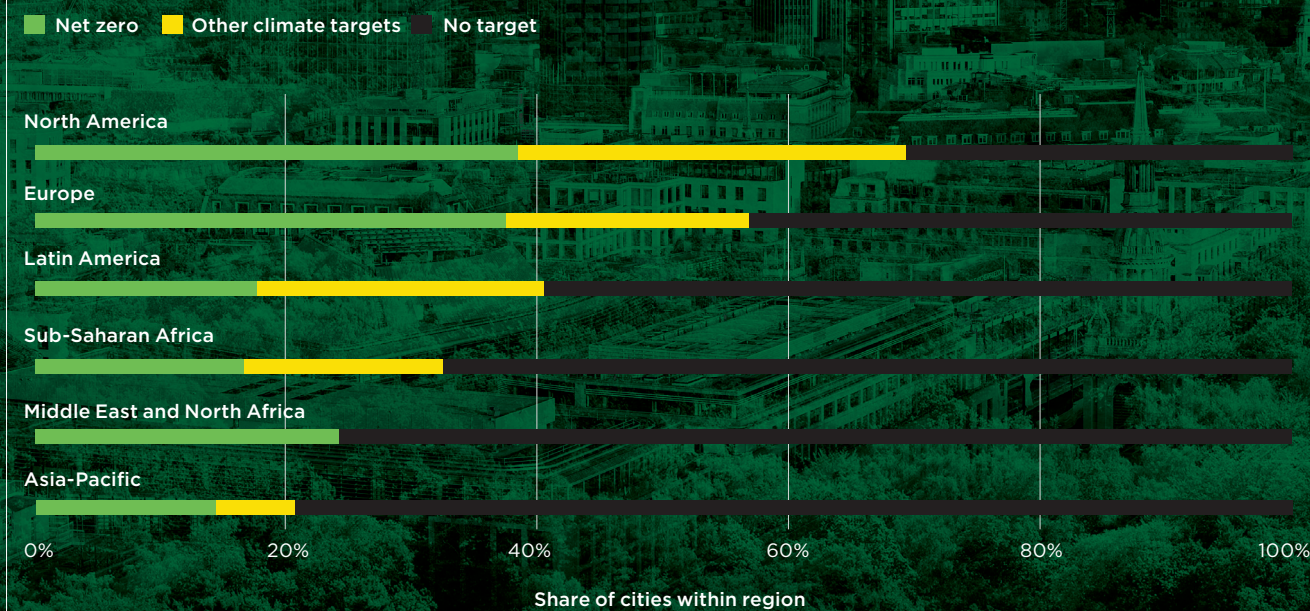
In less mature real estate markets, notably those in the Middle East, Africa and India, there is potential to add new, environmentally compliant stock from the outset. By contrast, mature real estate markets must focus on retrofitting to reach carbon neutral goals. This challenge is particularly acute in Europe, which has a rate of just 1-2% of new construction, resulting in the need to upgrade large amounts of historic building stock.

PRIOR TO 2019, A GREATER PROPORTION OF CITIES WERE SETTING NET-ZERO TARGETS



Source: Savills Research using Energy & Climate Intelligence Unit Net Zero Tracker (cities with populations greater than 500,000)

CITIES BY REGION AND TYPE OF END TARGET GOAL



Source: Savills Research using Energy & Climate Intelligence Unit Net Zero Tracker (cities with populations greater than 500,000)

The EU Mission on Climate-Neutral and Smart Cities has developed a NetZeroCities platform to support local authorities by sharing tools, resources, expertise and capabilities

INNOVATION, COLLABORATION, REGULATION: How cities are leading the net-zero charge to meet targets

1 Collaboration is key

It is vital for local and national governments to work alongside commercial organisations and citizens to develop cohesive strategies for reducing emissions that can be implemented across all levels of society. Barcelona, for example, has invested €1.2 million into a climate action plan focused on raising public awareness of climate change and ‘building together’ to confront the issues.

“Carbon neutrality cannot be prescribed; it can only be achieved if we perceive it as a shared effort, a joint mission for all of us to change the face of our cities and the future of the planet,” says Maria Vassilakou, urban strategist and former deputy mayor of Vienna. “Local governments should take the lead and steer our efforts involving citizens, businesses, real estate, local and national stakeholders, facilitating broad and innovative local partnerships and bottom-up action. Climate-neutrality at city level is the world’s biggest public-private partnership.”

2 City councils lead by example

City governments are setting an example for others to follow by ‘greening’ their own real estate. In 2020, all city-owned properties in Sydney were run using 100% renewable energy for the first time, while Cape Town has set out a roadmap for making all its municipal buildings operate to net-zero standards by 2030. Toronto City Council has also implemented its TorontoTO strategy, aimed at reducing community-wide greenhouse gas emissions to net zero by 2050, while recent updates to the Toronto Green Standard aim to achieve net-zero emissions for new buildings by 2030.

3 Local governments and mayors taking action

Cities with active local governments, particularly those with engaged mayors, have been the most proactive in furthering their net-zero agendas. Published net-zero plans offer the clearest indication of the steps municipal governments are taking. The EU Mission on Climate-Neutral and Smart Cities has developed a NetZeroCities platform to support local authorities by sharing tools, resources, expertise and capabilities. Cities participating in the mission will formulate a climate neutral contract outlining how they intend to implement the European Green Deal at a local level. Leuven in Belgium has been heralded as a ‘standout’ city for its climate plan, Leuven 2030, which includes involvement from citizens and economic actors, as well as national authorities. In the US, Los Angeles’ Green New Deal, which calls for a zero-carbon electrical grid, transportation system, and buildings by 2050, claims to have created 35,000 green jobs so far.

4 Incentives versus regulation

City governments are adopting various ‘carrot and stick’ initiatives to achieve their net-zero goals, ranging from funding programmes and tax relief to tighter regulation and initiatives such as low emission zones. In 2019, the San Francisco mayor’s

office introduced legislation requiring all private commercial buildings larger than 50,000 sq ft to transition to 100% renewable energy. The Australian city of Adelaide’s Sustainability Incentives Scheme (SIS) provides financial incentives to install sustainable technology in houses, apartments and commercial buildings to improve their energy and water performance. Meanwhile, in the UK, London has introduced the world’s first Ultra Low Emission Zone (ULEZ), and other UK cities have announced plans for their own low emission or clean air zones in line with the country’s ‘Build Back Greener’ net-zero strategy.

THE ROLE OF REAL ESTATE

Real estate is responsible for 40% of global greenhouse gas emissions and is therefore an important sector for cities to consider when planning their paths to net zero. Real estate emits carbon in two forms: embedded and operational (the latter having the greatest impact). Measures must therefore be taken to limit carbon emissions at each stage of real estate projects, from conceptualisation and design, through to planning and completion.

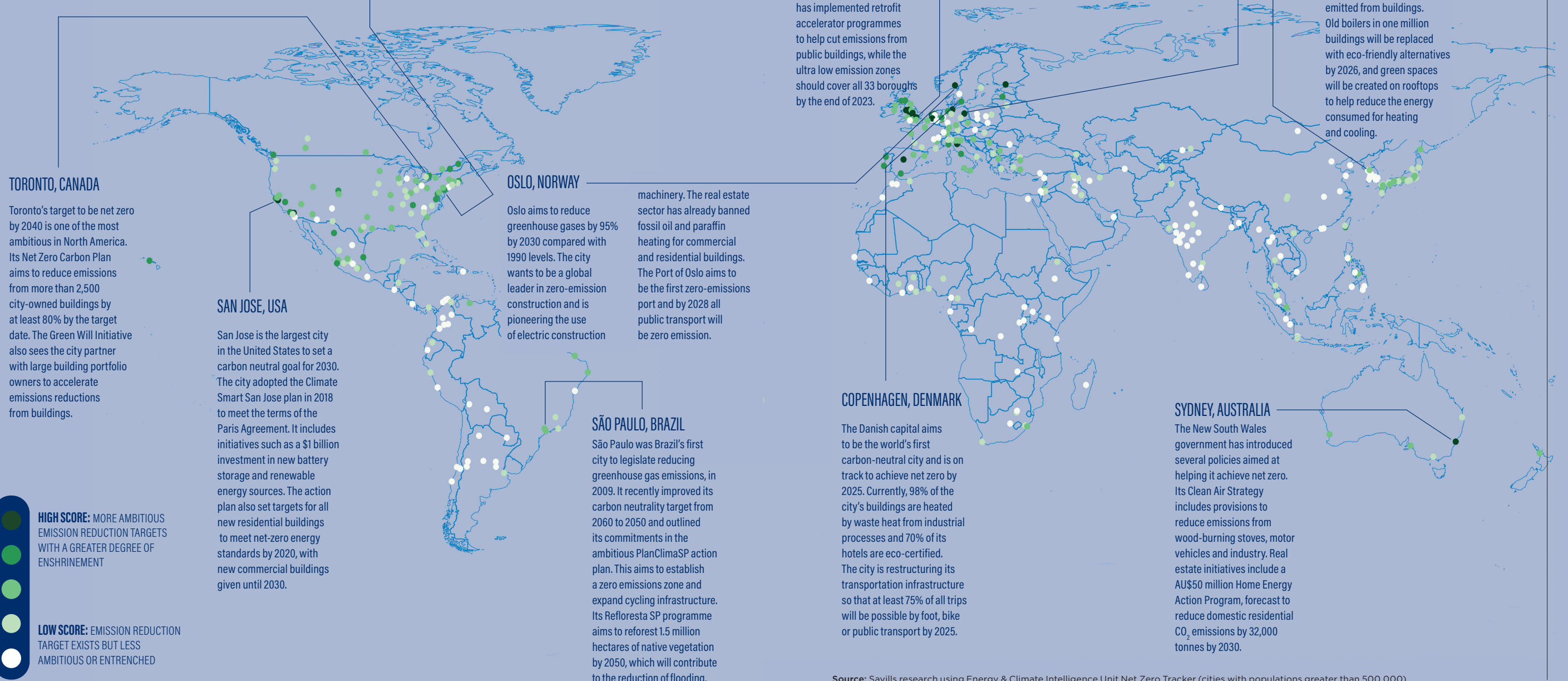
“For existing buildings, the focus is first on improving operational building efficiency, eliminating energy waste and then moving away from the use of fossil fuels for heating, cooling and power,” says Sarune Ringelyte, Principal Sustainability Consultant, Savills UK. “For new construction and refurbishments, that includes switching to lower carbon materials.”

Proptech and smart building systems, as well as renewable and low energy technologies, can all help to improve a project’s green credentials. Research, development and property technologies will be crucial in helping to reduce emissions from the built environment as cities set their sights on net zero. Construction will therefore be at the forefront of this green building revolution, with forecasting and data analytics firm Oxford Economics suggesting that global construction output could reach \$15.2 trillion by 2030, up 42% from its 2020 level. The International Financial Cooperation estimates that green buildings represent a \$24.7 trillion investment opportunity by 2030 across cities in emerging markets.

“Technology for net-zero buildings in operation is already there,” says Ringelyte. “The challenge for cities is deploying that technology at scale, cost effectively and fast across all new developments and the existing building stock, along with tackling the embodied carbon emissions.”

PATHWAYS TO NET ZERO: CITY-BY-CITY TARGETS

Distribution of cities and how they scored based on criteria including the type of net-zero targets being set, the end target year, percentage reduction of emissions, and how legally binding these targets are.



Source: Savills research using Energy & Climate Intelligence Unit Net Zero Tracker (cities with populations greater than 500,000)