# Most Sustainable City: Canberra's Example

# Canberra, the world's most sustainable city

It's official, the most sustainable city in the world is Australia's capital city, Canberra. Last May, the UK company, Uswitch, crowned the 2021 winner. Still, much of the credit is due to Canberra's green transport and renewable energy supply.



#### Source: uswitch

Importantly, the Uswitch award helps focus attention on strategy. As it is, climate change is a major issue. So, more and more cities are prioritising it in their planning. For context, some 70% of the <u>world's population</u> will be living in cities by 2050.

# What is a Sustainable City?

By definition, cities with green, social, and economic sustainability are called Sustainable Cities.

All United Nations member states adopted the <u>Agenda for Sustainable</u> <u>Development</u> in 2015. Together, there are 17 Sustainable Development Goals (SDGs). Of those, <u>Goal 11</u> is to make cities inclusive, safe, resilient and sustainable.

# 1 SUSTAINABLE CITIES AND COMMUNITIES



<u>SDG11</u> has a number of targets and indicators for safe, resilient and sustainable cities.

# How to measure the most sustainable city?

Overall, there are <u>6 essential features</u> of a sustainable city. These are:

- strong transportation infrastructure,
- good energy, affordability,
- good air quality and pollution control,
- low carbon dioxide emissions, and
- a high percentage of green space.

At most, a city can score 600 points. Canberra received 427.

# The most sustainable cities in the world

Index score based on 6 sustainability factors\*



	City	Score		City	Score
1	Canberra	427	16	<b>⊎</b> Muscat	335
2	Madrid	403	17	Brussels	334
3	Brisbane	382	18	Vienna	331
4	C Dubai	375	19	<ul><li>Vancouver</li></ul>	330
5	Copenhagen	369	20	Johannesburg	326
6	Frankfurt	365	21	Geneva	326
7	Hamburg	364	22	<ul><li>Tokyo</li></ul>	324
8	<b>▶</b> Prague	359	23	() Milan	324
9	C Abu Dhabi	357	24	() Paris	323
10	Zurich	355	25	Montreal	323
11	Antwerp	346	26	Barcelona	320
12	# London	343	27	Toronto	318
13	Rotterdam	342	28	# Glasgow	317
14	Amsterdam	342	29	Doha	314
15	Munich	339	30	Berlin	312

<sup>\*</sup>Based on energy, transportation infrastructure, affordability, pollution, air quality, CO2 emissions and % of green space

Scores are out of 600 (600 being the best)





The most sustainable cities in the world from 1-30 (Source: uswitch).

## 1. Transportation infrastructure

Easy and affordable public transport improves air quality. It does this by reducing <u>vehicles</u> on the road. Less traffic also improves quality of life. In addition, 'green' vehicles cut emissions.

In fact, Canberra has <u>88.6%</u> 'green' transport services. Also, it has a vast network of public transport, and will soon add a light rail. Travel in Canberra is fast, with only a 30 minute commute to any destination. Besides that, popular ride-sharing <u>services</u> reduce <u>solo</u> trips.

# 2. Energy

Canberra relies on <u>solar and nearby wind farms</u> for energy. Altogether, some <u>48%</u> of its supply comes from renewables.

The energy crisis, and climate change, calls for a cheap and <u>sustainable energy</u>. So, sustainable cities must make sure their power supply is also cost-effective.

# 3. Affordability

Obviously, affordable housing is key. The ability to find a home is a clear measure of liveability. In this respect, Canberra has improved housing availability only a little.

# 4. Pollution and air quality

Pollution affects the environment and human health. Yet, there are many types of pollution. That includes water, soil, and air pollution. Even so, to halt climate change, better air quality is essential.

#### 5. Carbon dioxide emissions

Canberra's reliance on renewable energy drives its low carbon emissions.

Reducing CO2 is the most important factor in the fight against global warming. Every person can help by <u>lowering their CO2 footprint</u>.

## 6. Percentage of the green space in the area

Finally, green space is not just about visual appeal. It can help control pollution and mitigate flooding. Even so, greenery enriches human lives and promotes biodiversity. Per capita, Canberra's green space is 353[]. For comparison, Sydney's is about 81[], and Melbourne's, 116[]

# The other most sustainable cities

Elsewhere, there are <u>cities doing great things</u> for sustainable living. Let's look at what makes them so successful.

# Copenhagen, Denmark

Copenhagen, for example, has made sustainability a priority. In fact, it has set the goal to become the <u>first CO2-neutral city by 2025</u>. Interestingly, only <u>29%</u> of homes have a car, and the city has created even more cycling lanes. In Copenhagen, people cycle rather than drive. Imagine how much cycling reduces emissions and traffic on the roads.



People prefer cycling in Copenhagen.

# San Francisco, California

By contrast, San Francisco has focused on waste control. Effectively, it now redirects 80% of its general waste. One day, the city aims to increase that figure to 100%.



Waste recycling bins in San Francisco.

# Practical methods to create sustainable cities

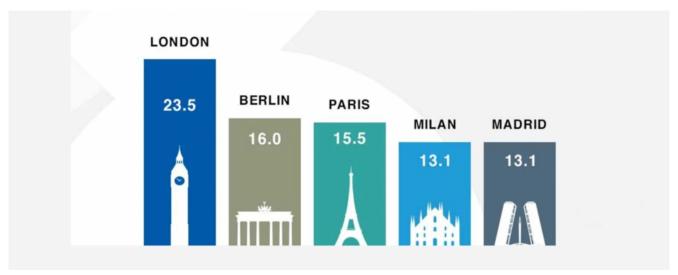
# The 20-minute neighbourhood

Spurred on by the pandemic, the '20-minute neighbourhood' has <u>become popular</u>. Imagine if you could walk, cycle or take public transport to key locations within 20 minutes. How happy, healthy and easy life would be!

In effect, the 20-minute strategy opens up cities by bringing important amenities to the neighbourhood. This makes a city more accessible and liveable. It also reduces pollution from commuting.

Another Australian city, Melbourne, has used this strategy for over ten years. At first, Melbourne asked what were the <u>key features</u> communities wanted. 'Safe, accessible and well-connected transport optimised for pedestrians and cyclists' was popular. So was the provision of 'services and destinations that support local living.'

Some <u>European countries</u> have also adopted the 20-minute rule. It is fast becoming a measure of comparison between cities. Yet, there are still some challenges. Mainly, the need for adequate funding to build amenities. It also requires the resources to track results.



Above, the results of a <u>survey</u> on city liveability are shown. The survey covered major European cities, including Paris, London, Berlin, Milan and Madrid. 5000 people answered how long it took to walk or cycle to essential amenities such as parks and shops. Madrid scored the shortest time: 13.1 mins. Still, all five cities enjoy a high degree of liveability.

# Clean energy

Clean energy is essential for cities to become sustainable. It reduces pollution and improves air quality. On top of that, designing 'green' buildings with good shade and ventilation reduces energy use improves health, and moderates city temperatures.

# Create more public green spaces

The percentage of green space is another important measure. Green space <u>solves</u> <u>several challenges at once</u>. As well as providing quiet, it reduces flooding, promotes biodiversity, and controls pollution. There are many examples of cities

using green spaces to improve urban settings.

China has developed a new idea called <u>Sponge city</u>. Here, green spaces break up highly urbanised areas. They also act to detain and filter water.

Elsewhere, creating <u>natural ecosystems</u> are popular. In Singapore, for example, increased greenery and green construction standards are transforming the city state. Also, The Netherlands redesigned their sewer system. This created multifunctional water "squares" to hold storm water.

## **Conclusion**

So, it's tailored, practical measures like these that help to make cities more attractive, resilient and sustainable.

With cities like Canberra and Copenhagen as the example, more cities are following suit. Different strategies are used to address local challenges. Together, they all help to control emissions and improve liveability around the world. For more news on the many innovations to make the planet more liveable, subscribe to <a href="https://doi.org/10.1001/journal.org/1