

Green capital, smart city

Parks and gardens, farmer's fields and meadows, a biosphere park and a national park: Vienna is a green city where protecting the environment and sustainability are always high on the agenda. Smart strategies help to make sure that this urban space remains as livable as always.

Livable city

When it comes to quality of life, Vienna leads the international field. Mercer's 2019 Quality of Living Survey awarded top spot to the Austrian capital for the tenth year in succession. Periodically, the global consultancy firm conducts a quality of life survey in 231 major towns and cities worldwide. Criteria include the political, social and economic climate, medical services, education and infrastructure facilities including public transportation, power and water utilities. Leisure facilities such as restaurants, theaters, cinemas, sports facilities, availability of consumer goods ranging from food to automobiles, and environmental factors including green space and air quality are also taken into consideration.

In 2022, the respected forecasters and researchers of the Economist Intelligence Unit (EIU) put Vienna in first place in its Liveability Ranking, while Monocle magazine ranked Vienna seventh in its list of the world's most livable cities. Global consultants Roland Berger analyzed the various strategies in place in 153 major international cities for its 2019 Smart City Index: Vienna came out on top.

The quality and cost of living also make the Austrian capital one of the world's most popular destinations for students. With nine universities, five universities of applied sciences and six private universities, Vienna is home to 195,000 students – the largest number of any university town in the German-speaking world. The city is also an ideal environment for creative types. Its central location in Europe, serial entrepreneurs, investors and – in comparison with other hubs – low-cost co-working spaces, mean that Vienna offers an ideal start-up ecosystem.

Parks and formal gardens

With more than 50% of its total area accounted for by green spaces, Vienna is one of the world's greenest big cities. The city limits are defined by a green belt of woodland, meadows, gardens and arable land. But the heart of the capital is awash with pockets of green, such as the elegant parks on the Ringstrasse boulevard, the Baroque formal gardens of Schönbrunn Palace and the Belvedere, and the meadows and woodlands of the Prater. The municipal gardens department is responsible for the upkeep of almost 1000 parks and other green spaces, and about 300,000 trees. Each year 360,000 spring flowers, 1.5 million summer blooms, 60,000 autumn flowers and 1 million bulbs add color throughout the city.

The Ringstrasse still manages to provide a refuge of peace and tranquility even though it is a major thoroughfare. This magnificent boulevard was carefully landscaped when it was constructed – each side of the street was planted with up to three rows of trees with a promenade and bridleway in between. Today around 2,400 trees line the route, providing welcome shade in the summer. Maple, linden, celtis, sycamore and horse chestnut are among the most common species. Taken all together, the strips of greenery that line the Ringstrasse boulevard cover a surface area of some 24,600 square meters.

The manicured parks along the Ringstrasse remain popular urban retreats to this day. One of them, the Volksgarten (next door to the Burgtheater), is home to 400 varieties of roses, which provide a spectacular sight in summer. Laid out in the style of a traditional English landscape garden, the Rathauspark has an impressive selection of trees, including a number of more exotic species. The nearby Burggarten – home to the much-visited Mozart memorial – contains the impressive Palm House. Divided in two, this giant Austrian Art Nouveau greenhouse now houses a restaurant as well

as the Butterfly House. Stadtpark is Vienna's oldest public park, opened in 1862. Its paths are lined with shrubs, lawns and ponds.

Completed under Empress Maria Theresa in an ambitious project started in 1743, Schönbrunn Palace and its Baroque grounds were added to the UNESCO World Cultural Heritage list in 1996 – as was the historic city center in 2001. The extensive grounds are punctuated with beautifully maintained verdant boulevards, statues, fountains and magnificent flowerbeds. Other attractions include a maze, a Japanese garden, Europe's largest palm house (dating back to 1882), the Gloriette on the crest of the hill behind the palace and, finally, Schönbrunn Zoo, which is the world's oldest surviving zoo. British zoo expert Anthony Sheridan named Schönbrunn Zoo Europe's best for the sixth time in a row in January 2022. A special Panorama Train takes in all the sites of the Schlosspark between April and the end of October.

The Baroque gardens that connect the Upper Belvedere with the Lower Belvedere were laid out in 1700 in the French style. The trees, hedges, sculptures and water features are all arranged symmetrically. With views of the city including St. Stephen's Cathedral and the Kahlenberg hill in the distance, the Belvedere (from bel 'beautiful' + vedere 'to see') certainly lives up to its name. The complex is also home to Europe's oldest Alpine garden which features 4,000 species of alpine plants from all over the world (open from mid-March to the start of August). Next door, the Botanical Gardens (founded by Empress Maria Theresa in 1754) cultivates around 11,500 specimens from six continents for scientific and conservational purposes. Its mature trees and beautiful lawns provide a protected habitat for numerous Austrian animal species.

Biotope and biospheres

The Viennese and their guests have access to a natural paradise extending for around six square kilometers in the second district. Just three kilometers from St. Stephen's Cathedral as the crow flies, the Prater park is within easy reach by public transport. Once part of the Danube flood plain, these former wetlands and erstwhile imperial hunting grounds are dotted with woods, meadows and ponds, making them the perfect place to go for a walk, jog or bike ride whatever the time of year. The park is bisected by the 4-km-long Prater Hauptallee, a car-free, dead-straight boulevard lined with 2,500 trees. Mighty horse-chestnuts stand in rows up to six deep, providing an incredible spectacle when they come into blossom each spring.

Another of the capital's recreation areas also has excellent public transport connections. The Danube Island, only a few minutes' ride from the city center on the subway, is Vienna's most popular place for residents to get back to nature. Stretching for 21 kilometers, the island covers all the angles, with no end of outdoor fun on offer including swimming, rowing and sailing, cycling, skating, beach volleyball, walking, picnicking, barbecuing and much more besides.

Vienna also has its very own biosphere in the west of the city – which has to be a first for a global capital. Referred to locally as the "lungs of the city" the Vienna Woods are part of the green belt. The idea behind the biosphere park is to preserve the natural environment in the places where flora and fauna need it most and promote sustainable agricultural and forestry practice in the region. In addition to providing a habitat for 2,000 species of plants, 150 varieties of birds and countless endangered species, the Vienna woods are crisscrossed by an extensive network of hiking and mountain-biking trails. The area is also home to some of the city's most attractive viewing stations, in the shape of the landmark Kahlenberg and Leopoldsberg hills.

And if that wasn't enough, part of a national park also falls inside the city limits: the Lobau, one of the last unspoiled wetlands in Europe. Accounting for an area of around 2,300 hectares in the east of the city, this Viennese natural paradise accounts for around a third of the Donau Auen National Park. This part of the city provides a natural habitat for more than 800 types of plants, rare orchids, 30 species of mammals, 100 species of nesting birds, eight kinds of reptiles, 13 kinds of amphibians and 67 types of fish – highlights include beavers, white-tailed eagles, praying mantises, grey herons and kingfishers.

In Vienna the great outdoors is valued and protected. Rare species of flora and fauna and natural habitats are cultivated and promoted all over the city. There is a special program to protect the 21 varieties of bat that live in built-up areas. And then there is the Vienna Tree protection act, which

stipulates that one or several new trees must be planted for each one felled, depending on its circumference.

More and more projects to integrate nature into the urban fabric are springing up. Measures include revitalizing natural water courses, improved rainwater management, and greening tram routes and building facades. Plans for urban development areas and large construction projects also prioritize the incorporation of efficient structures that are as close to nature as possible. In such cases, communal open and green spaces are just as important as good access to public transport and local amenities.

Fresh water, healthy food

In Vienna, the water can be enjoyed straight from the tap without a second thought – and to the surprise of many visitors, it tastes delicious. The city's water supply comes directly from the mountains, and has done since the days of the Romans, who redirected spring water from the surrounding area to the Vindobona camp where one of its legions was stationed. Since 1873 Vienna has sourced its potable water from 30 mountain springs. Two pipelines, 150 and 180 kilometers in length, convey the water from the Lower Austrian and Styrian Limestone Alps to Vienna without using a single mechanical pump thanks to the natural inclination. The difference in elevation is also used to generate electricity, making Vienna spring water a healthy and eco-friendly pleasure. There are also 1,300 drinking fountains in Vienna where visitors can quench their thirst for free.

Another revelation for a major capital: the City of Vienna is also one of Austria's largest organic farmers. It is responsible for about 2,000 hectares of organic farmland. Overall, some 27% of Vienna's arable land is accounted for by organic crops, one of the highest totals in Austria. There is even a separate organic brand to reassure consumers that the products concerned are from the city's own producers: Wiener Gusto. Overall, some 35 percent of Vienna's agricultural land is farmed organically, which is one of the highest totals in Austria. Vienna's organic farmers sell their fruits and vegetables from the farm gate and at the city's many markets, such as the Naschmarkt in the sixth district and the Karmelitermarkt in the second district. There is also a large organic farmers' market on Fridays and Saturdays in the Freyung district in the heart of the old town.

Organic trends are already well established in the capital's wine industry. Vienna is also the only major capital with a significant winegrowing industry within the city limits. Each year some 2.4 million liters of wine are produced in the Vienna region. About a third of the capital's 650 hectares under vines is cultivated organically, or in the process of switching over to organic production methods. The quintessentially Viennese Gemischter Satz wine was admitted to the Slow Food Foundation's Ark of Taste and declared a Presidio product by the organization. This uniquely Viennese variety is a blended wine that is composed of up to 20 different varieties of grape. Unlike a cuvee, they are planted, pressed and fermented together. Viennese Gemischter Satz producers have been permitted to display the DAC designation of origin on their wines since 2013.

Upwardly mobile

When it comes to transportation choices, Vienna can point to some outstanding results: just 26% of all journeys in the capital are taken by car, which sets the city apart in a comparison with its international peers. At 30%, the share of all journeys accounted for by public transport also leads the way. The Viennese complete 35% of their journeys on foot, with the rest taken by bicycle (9%). (2021 figures)

Thanks to its compact structure, Vienna is particularly pedestrian friendly. With many attractions within close walking distance of each other, tourists can easily explore the city on foot. And if push comes to shove, the nearest subway, tram, or bus stop is never far away. Vienna has an excellent public transportation network that runs for more than 1,150 kilometers and was used by almost 600 million passengers in 2021. All subway stations offer step-free access; with its fleet of low-ride buses and trams, network operator Wiener Linien plays a pioneering role in accessible public transportation.

Studies confirm that Vienna's public transportation network is one of the most efficient in the world. Five subway lines, 28 tram lines and 131 bus routes get about two million passengers from A to B each day. And that's before the suburban trains and regional services operated by Austrian National Railways (ÖBB) enter the picture. Vienna's public transportation system gets the city's population and visitors to their destinations quickly, comfortably and safely. And totals have risen sharply since the launch of the hugely popular EUR 365 annual pass.

For ten years now, it has cost just a euro a day to use Vienna's public transportation system. An international flagship, so to speak. Incidentally, the Viennese subway network will celebrate its 45th anniversary in 2023. In 2028, an all-new section of the U2 serving the south of the city will open. And the U5, Vienna's first fully automated subway line, will enter into service in 2026. As an interesting aside: the U5 (often planned, but never realized) will add the missing piece of the puzzle and finally fill the inexplicable gap in the numbering system. But more importantly, the additional capacity will take pressure off some of the city's busiest routes, while cutting the amount of time it travel around the city. The U2xU5 interchange is the city's biggest climate protection and infrastructure project.

Network expansion is one of many climate protection measures implemented by Wiener Linien, or Greener Linien, as it probably should be called! Other examples include electric buses (which have been a common sight on the city's streets for years now) and hydrogen buses (currently being tested), while the majority of trams and subway trains are mini power plants (their braking energy is fed back into the grid). And then there's station and track greening, as well as the installation of photovoltaic systems on top of transport authority buildings.

Wiener Linien's transportation app for the city, WienMobil, combines different forms of transport to come up with the most comfortable and efficient route from A to B. The app not only shows routes using public transport, but also incorporates cycle lanes and footpaths, taxis, city bikes and carsharing options. Vienna also has around 1,600 kilometers of eco-friendly cycle paths, bike lanes and cycling routes, with the WienMobilMehr scheme managing around 3,000 bikes at around 200 docking stations for bike riders to use at will. For holders of a special add-on season ticket, the first hour is free, with a nominal fee for each additional hour. Vienna's taxi fleet also offers smart alternatives. At present there are around 370 eco-friendly green taxis in the capital – a ride with one of these hybrid or electric alternatives costs exactly the same as a standard taxi.

Practical on the road: there are around 400 free WiFi hotspots in Vienna. Locations include the Tourist Info on Albertinaplatz, on Rathausplatz, on Stephansplatz, in the MuseumsQuartier, on the Naschmarkt, in the Prater park, on the Danube Island and the main station, Hauptbahnhof. They are shown on the online Stadt Wien map (<https://www.wien.gv.at/stadtplan/en>, "Communication & business", menu item WLAN hotspot). A list of restaurants, cafés, hotels and other places offering free WiFi can be found at www.freewave.at.

Smart strategies

Although Vienna is one of the most successful cities on earth when it comes to things like quality of life, infrastructure and innovation, it is still facing a major challenge. Its population is on the rise due to the combination of an increased birthrate and higher immigration, with numbers set to surpass the two million mark by around 2028 (the current population is approximately 1.9 million). However, this will not be the first time that Vienna reaches and breaches this particular milestone: in 1910 the Austrian capital was the world's fifth largest city after London, New York, Paris and Chicago. But by the end of the First World War Vienna had lost around one quarter of its inhabitants.

Over the coming 25 years, experts predict that the greater Vienna area will grow into a conurbation with a population of some three million, a development which will place heavy demands on infrastructure and call for innovative energy, accommodation and transportation concepts. The city will also have to contend with a host of global issues such as climate change and scarcity of resources.

To ensure that it is well prepared for the challenges ahead, the city council adopted a smart city strategy in 2011. Smart City Vienna's aim is to deliver the best quality of life for everyone living in

the city, while conserving resources to the fullest extent possible. It covers all areas of big city living, from infrastructure and energy, to mobility and urban planning. Intelligent and innovative approaches to sustainable, future-proof development provided the focus for a full range of areas including business, human and social capital, mobility, technology and the environment.

Dedicated to cutting greenhouse gas emissions, the City of Vienna has had a climate protection program in place since 1999. A raft of measures is being implemented to achieve this, including continuous expansion of district heating grids, subsidies for energy efficient renovation, and extending the public transportation network.

Innovative projects

Building green power generation capacity is not always an option in a city where 80% of the population lives in rented accommodation. Nevertheless, the Viennese do have an opportunity to get actively involved in providing renewable energy for the city and claim respectable dividends thanks to the proliferation of citizens' power stations. Local utility company Wien Energie builds solar and wind power stations in Vienna and Lower Austria, operates the plants and feeds the green electricity into the capital's grid. This initiative has a number of benefits: electricity is produced in proximity to consumers, transmission losses are minimized and dependency on energy imports is reduced.

One of the most ambitious smart city projects is a development in the twenty-second district called aspern – Vienna's Urban Lakeside. Driven by careful and responsible use of resources, a settlement for the twenty-first century is taking shape over an area covering 240 hectares. High-quality living space for around 20,000 residents – and almost as many jobs – will be created in stages leading up to completion in 2028. Thanks to intelligent city planning, residential provision has been optimally brought into alignment with working commitments. The new neighborhood was integrated into the public transport network even before the first residents moved in when an extension to the U2 subway was completed.

This part of the city is also home to a new research institute, Aspern Smart City Research (ASCR), which will focus on the theme of energy efficiency, by monitoring real buildings in the area – an approach that earns it the title of one of the most sustainable and innovative energy efficiency flagship projects anywhere in Europe. With 24 floors and topping out at an impressive 84 meters, HoHo Vienna is one of the world's tallest timber high rises.

Addresses

Mercer Quality of Living Rankings, <https://mobilityexchange.mercer.com/Insights/quality-of-living-rankings>

Economist Intelligence Unit, www.eiu.com

Monocle, monocle.com

Roland Berger Smart City Index, www.rolandberger.com

Volksgarten, Dr.-Karl-Renner-Ring, 1010 Vienna, www.bundesgaerten.at

Rathauspark, Universitätsring, 1010 Vienna

Burggarten, Burgring, 1010 Vienna, www.bundesgaerten.at

Stadtpark, Parkring, 1010 Vienna

Schlosspark Schönbrunn, Schönbrunner Schlossstrasse, 1130 Vienna, www.schoenbrunn.at

Schlossgarten Belvedere, Upper Belvedere, Prinz-Eugen-Strasse 27, 1030 Vienna,

www.belvedere.at, www.bundesgaerten.at

Alpine Garden at the Belvedere Palace, Landstrasser Gürtel 1, 1030 Vienna,

www.bundesgaerten.at

University of Vienna Botanical Gardens, Rennweg 14, 1030 Vienna, www.botanik.univie.ac.at

Prater, 1020 Vienna

Danube Island, 1210 + 1220 Vienna

Wienerwald Biosphere Reserve, www.bpww.at

Lobau wetlands, 1220 Vienna, www.donauauen.at

Naschmarkt, Rechte Wienzeile, Linke Wienzeile, Kettenbrückengasse, 1060 Vienna, www.wienernaschmarkt.eu
Biobauernmarkt (Organic Farmers' Market), Freyung, 1010 Vienna, www.biobauernmarkt-freyung.at
Karmelitermarkt, Im Werd, Krummbaumgasse, Leopoldsgasse, Haidgasse, 1020 Vienna
Wiener Wein, www.wienerwein.at
Wiener Linien, www.wienerlinien.at
WienMobil, <https://www.wienerlinien.at/wienmobil-app>
Citybike, www.citybikewien.at
Green Taxi, www.taxi40100.at
Smart City Vienna, <https://smartcity.wien.gv.at>
Citizens' power stations, www.buergerkraftwerke.at
Aspern – Vienna's Urban Lakeside, 1220 Vienna, www.aspern-seestadt.at
Aspern Smart City Research (ASCR), www.ascr.at
HoHo Wien, www.hoho-wien.at

www.vienna.info

The rights to the use of this text are owned by WienTourismus (Vienna Tourist Board). The text may be reproduced in its entirety, partially and in edited form free of charge until further notice. Please forward sample copy to: Vienna Tourist Board, Media Management, Invalidenstrasse 6, 1030 Vienna; press@vienna.info. No responsibility is assumed for the accuracy of the information contained in the text.

Last updated: September 2022