

Smart City Wien

Framework Strategy | Overview



City of +Vienna

The definition of Smart City Wien

Smart City Wien defines the development of a city that assigns priority to, and interlinks, the issues of energy, mobility, buildings and infrastructure.

In this, the following premises apply:

- **radical resource preservation**
- **development and productive use of innovations/new technologies**
- **high and socially balanced quality of living**

This is to safeguard the city's ability to withstand future challenges in a comprehensive fashion. The elementary trait of Smart City Wien lies in the holistic approach pursued, which comprises novel mechanisms of action and co-ordination in politics and administration as well as a wider leeway of action assigned to citizens.

Smart!

That's what our cities should be. The decisions for our future are taken in the cities. A smart city can achieve growth while reducing resource consumption. Moreover, Smart City Wien aims for a high degree of social cohesion and quality of living, which is to be chiefly attained through innovations in all areas of urban life. Vienna wants to be a worldwide forerunner smart city. This is not merely a fantasy of resource and climate protection based on new technologies. Rather, for Vienna this goal embodies successful social participation and services of general interest tailored to human needs. By pursuing this Strategy, Vienna wants to become the smartest among the world's smart cities.



A black and white image of the handwritten signature of Michael Häupl.

Michael Häupl
Mayor



A black and white image of the handwritten signature of Maria Vassilakou.

Maria Vassilakou
Deputy Mayor and Executive City Councillor
for Urban Planning, Traffic & Transport,
Climate Protection, Energy and Public
Participation

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“That’s what Vienna is like today”

An overview of Vienna and what makes it a smart city

Growing while saving energy: smart!

Vienna's population is growing, and this amplifies the circle of possibilities open to the city. On an international scale, the Austrian capital scores with the achievements of its enterprises, educational system, environmental protection activities, public transport, social housing and social services available to everybody. All this is to grow even further.

At the same time, however, resource use needs to be curbed. We want to consume less fossil fuels than today – also because fossil fuel use contributes markedly to climate change and its immense consequential costs.

The smart city principle

Vienna is doing many things right – in transport, housing construction, urban development, environmental protection, supply and waste disposal services as well as social services for the population. All this is to function even better in the future.

This is the purpose of the Smart City Wien Framework Strategy. It is to help Vienna achieve growth coupled with reduced resource consumption. Social inclusion is a decisive factor here; this means that all measures will take account of all people living in the city.

A smart city conserves resources and the environment and improves its quality of living through innovation in all fields.

The Smart City Wien initiative

The initiative was launched in 2011 under the aegis of Mayor Michael Häupl. Work on the Framework Strategy commenced in 2013, and the publication is available as of now. All municipal departments as well as many experts active in the sciences and business both inside and outside the Vienna City Administration have contributed to this document. The exchange conducted with other European cities could serve as a stimulus for creating a network of European smart cities.



The initiative is to extend from now to the year 2050, as the necessary changes in the energy, mobility or construction sectors cannot be expected to come about overnight. However, the key objective is clear: Vienna wants to reduce its resource consumption significantly while continuing to offer excellent quality of living, safety and security for all.

An excellent starting point

It is not by chance that Vienna occupies a leading position among the world's cities. Its starting point for becoming a smart city is excellent, especially in the following areas:

Social housing. This includes municipal housing and non-profit housing associations. Together, they own more than 400,000 high-quality dwellings distributed all over the city. This contributes significantly to a good social mix and affordable housing costs.

Public transport. Public transport makes it possible to reach almost all parts of the city quickly and in comfort. Inexpensive fares, excellent reliability and quality ensure high acceptance levels on the part of citizens.

Business. Innovative enterprises and scientific institutions prepare Vienna for the challenges of a knowledge-driven economy.

Vienna's water. Vienna's water is of supreme quality for a metropolis and has been so for more than a century. The amount of Euro 30 million is invested annually in the water distribution network to maintain this high quality.

Waste management. Vienna's waste management structures including waste disposal, waste separation, sewage treatment and the combination of waste incineration and heat generation are considered models of good practice by many other cities.

Green spaces. The share of green space occupies about half of Vienna's municipal territory. The Vienna Woods and Danube Island are large-scale recreational areas for the population. Both blend environmental quality with attractive leisure options.

An alliance with the Federal Republic

In summer 2013, Vienna's Mayor and the Federal Minister for Transport, Innovation and Technology concluded a co-operation agreement ("Memorandum of Understanding") between the City of Vienna and the Federal Republic of Austria with the aim of supporting the goals of Smart City Wien. It is the purpose of the memorandum to develop joint future projects and to lobby for their funding at the European level. Together, Vienna and the Federal Republic want to make Smart City Wien an international model to emulate.

“Goals of the European Union (EU)”

Facing climate change, the EU has set ambitious targets for 2020, 2030 and 2050

Climate protection is a task for all of us. By means of a long-term process, we must end our dependency on fossil fuels, make use of renewable energy sources and develop sustainable conversion technologies and services. The EU steers this process by laying down specific targets to be met. Vienna is committed to these goals and contributes to the attainment of energy and climate protection targets.

In 2007, the EU Member States agreed on the **“20-20-20 targets”**:

By 2020 greenhouse gas emissions are to be reduced by at least 20% as compared to 1990, while the EU energy consumption produced from renewable sources is to attain 20%, and energy efficiency is to be improved by 20% over current figures.

According to the emerging **“2030 targets”** of the EU, the EU-wide CO₂ emission volume is to be reduced by 40% as compared to 1990 levels.

The share of renewable energy is to be increased to 27% across the EU.

Formulated in 2009, the **“2050 objective”** of the EU wants to reduce greenhouse gas emissions in the EU by 80% to 95% versus 1990.

“What the smart city concept actually means for Vienna”

Resource protection, innovation and quality of living are the objectives of the Smart City Wien Framework Strategy

Consuming less resources and protecting the climate

For Vienna as a smart city, the EU's demands mainly translate into resource preservation. Modernisation, upgrades and technological as well as social innovations in the fields of energy, mobility, infrastructure and buildings are to drastically reduce CO₂ emissions by 2050. The Smart City Wien Framework Strategy is to highlight ways and means for Vienna to attain the European climate and energy targets for 2020, 2030 and 2050.

Successful climate protection means lower energy costs and greater security of supply. Why? Because successful climate protection can be attained by switching to local renewable energy sources and innovations in such areas as energy use, housing construction, mobility and infrastructure. Turning away from fossil sources leads to greater resilience, cleaner air, more liveable neighbourhoods, a city of short distances and a diversified range of public spaces and public services. In its turn, this opens up greater leeway for action to be enjoyed by citizens.

Improving quality of living through innovations

Successful climate protection also means even greater **quality of living** – another key goal alongside resource conservation. This further improvement of the quality of living calls for **innovations** – the third goal of the Smart City Wien Framework Strategy. This goal focuses e.g. on innovations in the fields of economy, information and communication technologies as well as education, research and science.

Social inclusion as a guarantee for all people in the city

Resource preservation and innovation are objectives for any city striving to become smart. Vienna wants to create an additional close link, based on social inclusion, between these two goals. This means that all economic, technological and structural change processes must always take account of the needs of all population groups.

In Vienna, processes of change proceed in a socially balanced manner. Disadvantages are compensated as far as possible, and the high level of social security is maintained.

The city belongs to all – women and men

To ensure that high quality of living will be possible also for persons with lower incomes, public services, affordable housing and public transport are as essential as publicly accessible green and leisure spaces and a highly developed healthcare system. Allowing citizens to participate in shaping their city is of paramount importance: they are to make their voice heard in all development processes.

Vienna belongs to women and to men, and all groups of society take part in shaping it. This calls e.g. for the promotion of women, gender mainstreaming and gender budgeting.

For the benefit of its residents, Smart City Wien must be resilient: flexible, adaptable and willing to learn. This is a core commitment of Vienna to prepare for the future.

“This could be Vienna in 2050”

The Framework Strategy is to guide Vienna through the 21st century. This is the vision

The key objective of Smart City Wien for 2050 is: best quality of living for all people in the city – combined with maximum resource preservation, which is brought about by comprehensive innovations.

A city of codetermination and social justice

In keeping with this key objective, Vienna in 2050 is an even more liveable city. It is an open city for everyone, no matter how long they have been living here.

The city is admired all over the world for the way in which it offers every citizen excellent, easily accessible possibilities for personal development and codetermination. Social justice as a central tenet allows for comprehensive services for the public. This is another reason why people in Vienna feel safe and enjoy life.

A city of green spaces and renewable energy

The city is not only famous for its good air quality, cultural legacy of the past, lively arts scene and quality of living, but also for its ample recreational areas and green spaces for leisure activities. These sites as well as any other point in the city can be reached with both time-tried and innovative means of transport.

Traffic management is resource-preserving and respects public space. Security of supply in the city is of prime importance. Decentralised energy supply in suitable neighbourhoods provides not only district heating, but also energy from renewables.

Modern technologies, combined with high environmental and energy awareness, determine the behaviour of people in Vienna – they make sure that their city will remain a liveable place for all.

A city of equal opportunities for all generations

Intelligent grids and useful information systems facilitate communication. New developments in the fields of architecture, design and sustainability as well as multifaceted neighbourhoods determine urban life. A wide

range of local supply options and ample leeway for urban design also contribute to ensuring equal opportunities for all generations and hence a good life for all.

Due to excellent educational facilities, Vienna has established itself as the Central European capital of research. The constant exchange of knowledge and research findings with international scientific institutions has become an established tradition.

A city for young people from all over the world

Favourable economic policy conditions and cutting-edge technologies create a diversified employment landscape with a sufficient number of workplaces that are highly compatible with family life and children. Internationally, Vienna is considered a leader in products and services pertaining to energy, mobility, sustainability and health.

These assets attract young people from all over the world, who find possibilities for a fulfilled and happy life in Vienna. Even long-time residents of the city have caught this “bug”.

“Becoming Smart City Wien”

The Framework Strategy provides a common orientation for the initiatives of the city

The goal is evident: Vienna wants to markedly reduce resource consumption in the city. At the same time, the city is to continue offering excellent quality of living and social cohesion for all its residents.

We can cope with these challenges if we approach change actively and make Vienna – even more so than in the past – a fertile breeding ground for innovation.

Of course, this must always follow the premise of placing human beings squarely at the focus – social inclusion is the motto here.

Opportunities for change in Vienna

The 21st century is the “century of cities”. The influx of newcomers as well as population growth will continue, especially in the big metropolises of Asia, Africa and Latin America. However, many European cities like Vienna likewise present a strong dynamism that should be viewed as both a challenge and an opportunity.

The Smart City Wien Framework Strategy must be understood from this perspective: how can Vienna tap the chances offered by change and dynamic growth? How can we position ourselves as a hub of innovation and novel solutions?

Smart City Wien defines the development of a city that assigns priority to, and interlinks, the issues of energy, mobility, buildings and infrastructure.

In this, the following premises apply:

- **radical resource preservation**
- **development and productive use of innovations/new technologies**
- **high and socially balanced quality of living**

The goal can only be reached through collaborative implementation

The principle of the Framework Strategy lies in its holistic approach to ensuring Vienna's future sustainability in comprehensive fashion. This means new forms of action and co-ordination for politics and administration. Moreover, the scope of codetermination for the citizens of Vienna is expanded as well.

The Framework Strategy calls for a novel attitude on the part of the municipal administration: together instead of alone. The Strategy's goals support the present tasks to be met by the individual departments. By the same token, the various departments can derive inspiration for their own activities from the joint Framework Strategy.

“The effects of the Smart City Wien Framework Strategy”

As an inspiration, reference point for specialised strategies, co-ordination tool and magnet for new ideas, the Framework Strategy is Vienna's new business card

The success of the Smart City Wien Framework Strategy is determined by co-operation. Through co-operation, the Strategy becomes a supportive and structuring principle both for Vienna's development and for existing documents, plans and programmes. Through co-operation, it exerts a magnetic effect on planning processes and facilitates the targeted adaptation and updating of individual thematic strategies. Combined with

verifiable, mid-term goals (2030), the long-term time horizon (2050) of the Framework Strategy allows for ongoing evaluation of the targets jointly attained. It helps to focus themes and areas of action of the City of Vienna for planning and action both internally and externally.

This results in larger, politically cross-cutting projects that also require co-operation between politicians. In this way, the Framework Strategy becomes a new business card of Vienna.

By demanding close co-operation, existing planning work is to aim for even more ambitious goals and to inspire new approaches and ideas. Towards the world outside, the Strategy places everything that is happening in Vienna in an international context and creates publicity for the city's efforts. The time horizon of the Framework Strategy extends to the year 2050, as the often fundamental changes in such areas as energy, mobility and buildings cannot come about overnight, as it were. The thematic arc ranges from the future of Vienna as a hub of research and business to the safeguarding of its top-level social achievements.

Since all residents of the city are to be motivated to engage in co-operation, the Framework Strategy comprises many core areas of urban life. Above all, it strives to involve private and municipal enterprises as well as partners from the economy, research, science and other fields in a comprehensive process. It is an overall Strategy for Vienna that reflects the motto “let's find smart solutions for complex problems”.

“The objectives of the Smart City Wien Framework Strategy in detail”

The Strategy as adopted by the Vienna City Council: three central objectives come with detailed sets of targets

Now we know all about the central aspects of the Smart City Wien Framework Strategy: resources, innovation and quality of living. Moreover, concrete details were laid down for each of these aspects. Each aspect is hence subsumed under an overarching goal that is to be attained by means of detailed targets. And this is how they look like:

Resources

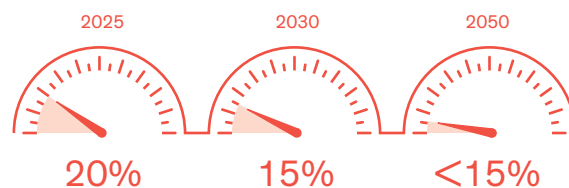
Objective: Per-capita greenhouse gas emissions in Vienna drop by at least 35% by 2030 and by 80% by 2050 (compared to 1990).

Objectives Energy:

- Increase of energy efficiency and decrease of final energy consumption per capita in Vienna by 40% by 2050 (compared to 2005).
- At the same time, the per-capita primary energy input should drop from 3,000 watt to 2,000 watt.
- In 2030, over 20%, and in 2050, 50% of Vienna's gross energy consumption will originate from renewable sources.

Objectives Mobility:

- Strengthening of CO₂-free modes (walking and cycling), maintenance of high share of public transport and decrease of motorised individual traffic (MIT) in the city to 20% by 2025, to 15% by 2030, and to markedly less than 15% by 2050.

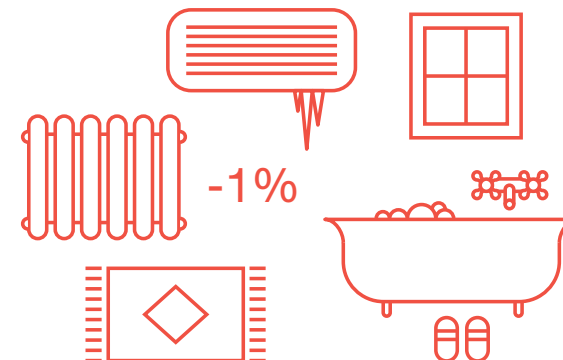


- By 2030, the largest possible share of MIT is to be shifted to public transport and non-motorised types of traffic or should make use of new propulsion technologies (e.g. electric-powered vehicles).

- By 2050, all motorised individual traffic within the municipal boundaries is to make do without conventional propulsion technologies.
- By 2030, commercial traffic originating and terminating within the municipal boundaries is to be largely CO₂-free.
- Reduction of energy consumption by passenger traffic across municipal boundaries by 10% in 2030.

Objectives Buildings:

- Cost-optimised zero-energy building standards for all new structures, additions and refurbishments from 2018/2020 and further development of heat supply systems towards even better climate protection levels.
- Comprehensive rehabilitation activities entail the reduction of energy consumption of existing buildings for space heating/cooling/water heating by 1% per capita and year.



Objectives Infrastructure:

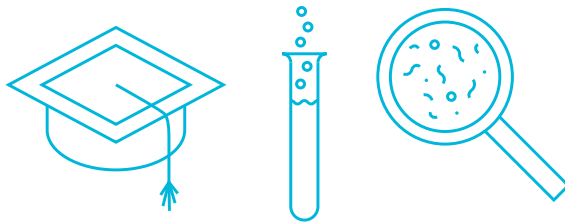
- Maintenance of the high standards of Vienna's infrastructure facilities.
- In 2020, Vienna is the most progressive European city with respect to open government.
- The next 100 apps in three years.
- Pilot projects with ICT enterprises are to serve as showcases for the city and its economy.
- In three years, Vienna will have a comprehensive WLAN.

Innovation

Objective: In 2050, Vienna is an innovation leader due to top-end research, a strong economy and education.

Objectives Research, Technology and Innovation Strategy (RTI):

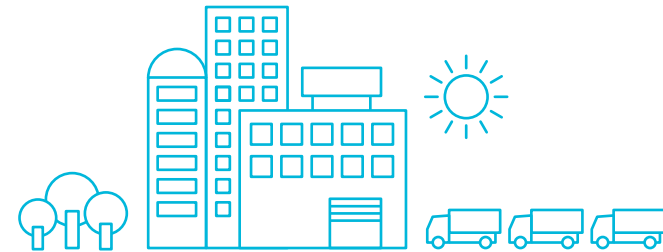
- In 2050, Vienna is one of the five biggest European research and innovation hubs.
- By 2030, Vienna attracts additional research units of international corporations.
- In 2030, Vienna is a magnet for international top researchers and students.
- By 2030, the innovation triangle Vienna-Brno-Bratislava is one of the most future-oriented cross-border innovation regions of Europe.



Objectives Economy:

- In 2050, Vienna remains one of the ten European regions with the highest purchasing power based on per-capita GDP.
- Vienna further strengthens its position as the preferred company headquarters city in Central/South-eastern Europe.
- 10,000 persons annually set up an enterprise in Vienna.

- The direct investment flows from and to Vienna have doubled as compared to 2013.
- The share of technology-intensive products in the export volume has increased to 80% by 2050 (as compared to 60% in 2012).



Objectives Education:

- Comprehensive provision of whole-day and integrated schools and further upgrading of high-quality childcare offerings.
- Even after 2020, it will be important for Vienna to make sure that a maximum number of young people will continue their education beyond compulsory schooling and thus attain a higher educational level.



- Even after 2020, it will be important for Vienna to safeguard positive conditions for acquiring formal school-leaving qualifications through second-chance education and for the recognition of foreign educational attainments by adults.

Quality of living

Objective: Vienna maintains its quality of living at the current superlative level and continues to focus on social inclusion in its policy design: as a result, Vienna in 2050 is the city with the highest quality of living and life satisfaction in Europe.

Objectives Social inclusion:

- All people in Vienna enjoy good neighbourly and safe life conditions irrespective of their background, physical and psychological condition, sexual orientation and gender identity. Vienna is a city of diversity that is expressed to the fullest in all areas of life.
- High-quality, affordable housing and an attractive housing environment are made accessible to the largest possible share of the population.
- Active participation at work as well as the work performed must be adequately remunerated and ensure the coverage of all basic needs in life.
- Women are involved in planning, decision-making and implementation processes in keeping with their share in the total population. All persons involved in these processes dispose of gender competence.

Objectives Healthcare:

- Strengthening of health-promoting conditions of life and health literacy of all population groups.
- Safeguarding of medical care at the highest level due to demand-oriented and efficient supply structures and processes (best point of service) for all citizens as well as reduction and shortening of hospital stays.

- To safeguard a strong and socially equitable public healthcare system, the Vienna Hospital Association and its facilities will remain a publicly-owned enterprise. Potentials for greater efficiency must be systematically reviewed and used in all areas.
- “Outpatient over inpatient” is the organisational principle of nursing services – letting persons stay in their own home for as long as possible while offering top-notch nursing quality.
- The inhabitants of “smart Vienna” are happy with the quantity and quality of their leisure time.

Objectives Environment:

- By 2030, the share of green spaces must be kept at over 50%. Especially in a growing city, additional recreational areas must be safeguarded to keep up with rising population figures.
- In 2020, the savings achieved by municipal waste management have already attained approx. 270,000 tonnes of CO₂ equivalents as a result of further planned measures and improvements.

With these set goals, the route towards a smart Vienna seems clearly traced. To cope with the challenges, the most important factor will be co-operation – and not only between the individual municipal departments. Involving the people of Vienna, its surroundings and the Federal Republic of Austria is equally important. Moreover, the smart city goals are a shared concern of many European cities, all of which can learn from, and support, each other in the process – despite tough competition, which is also necessary. Being a smart city after all entails greater quality of living, with less resource consumption and stress on the environment, for us all.



“A new chance for Vienna’s administration”

The Framework Strategy contributes to a reorientation of the co-operation between the City of Vienna and its environs

The Smart City Wien Framework Strategy entails a special opportunity for closer administrative co-operation. Many goals cannot be attained through individual activities or competencies alone. As already emphasised at the end of the preceding chapter, this is only possible through close collaboration across departmental, thematic and even municipal boundaries. The Framework Strategy places one focus squarely on innovation – this does not only concern Vienna as a hub of research, education and business, but also calls for novel forms of municipal administration and municipal enterprises.

More co-operation – also with the Federal Republic and the neighbouring federal provinces

The Framework Strategy opens up two prime areas of implementation: one concerns co-operation in policy design in view of increasingly complex tasks and tight resources. The other one entails new administrative challenges, also because many tasks can only be carried out by several organisational units in close collaboration.

For the people working in these organisational units, this means even more intensive co-operation within Vienna’s municipal administration and beyond. The Framework Strategy also aims to promote intensified collaboration and consultation with the Federal Republic and the Federal Provinces of Lower Austria and Burgenland, e.g. on mobility and spatial planning issues.

“We all together move Vienna ahead”

Smart City Wien creates benefits for all Viennese citizens, since it fosters their multifaceted and peaceful living together

Vienna will remain Vienna – even in the future. That means that the city will develop according to its inhabitants’ needs. The population is growing, and many citizens come from different cultures, bringing new ways of living to the city and making the city even more multifaceted and attractive. Vienna’s vision is to maintain and improve the quality of living.

Quality of living: affordable housing, good jobs, lots of green spaces

High urban quality of life is what makes Vienna so attractive. This means excellent water quality, a considerate administration, personal safety, good education and job opportunities and, in particular, the prospective of affordable living. In addition, citizens find a comfortable living environment with varied green spaces.

Peaceful living together, mutual respect

The principle of Vienna’s growth: mutual respect should bring together citizens with dissimilar ways of living and different cultures. This ensures peaceful development towards a caring society. The Smart City Wien Framework Strategy is aimed precisely at this goal while promoting a common future for the people of Vienna as well as social inclusion, diversity and equal opportunities.

Smart City Wien: people at the focus

The people of Vienna know very well how to further develop their city. They provide the ideas for Vienna’s future. This is why people are at the focus of the Smart City Wien Framework Strategy. The Framework Strategy cares about the views and needs of the population and is interested in their input to work together towards a variegated, socially secure, climate-friendly and peaceful future. This is the Viennese way towards becoming the smartest of all Smart Cities.



The complete text of the Smart City Wien
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www.smartcitywien.at
www.smartcity.wien



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"Smart City Wien!"

"What's that? And what's it good for?"

"So that our kids can enjoy the same good life we have!"

"And why shouldn't that be?"

"Because there are more and more people on this planet, and resources are getting scarce."

"True, that's a problem. And what can we do about it?"

"I'll give you an example: you know the Vienna Spring Water Main, do you?"

"Sure, our water tastes just wonderful!"

"The water line was built by our ancestors more than a century ago, and it still works great. The water is transported across a hundred kilometres from the mountains. And along the way, electricity for 20,000 households is generated as well."

"That's really neat!"

"Isn't it? And we need even better ideas for public transport, for healthcare, for energy production and so on... Safeguarding high quality of living while reducing energy input – that's the brainy way of putting it ... It's a worldwide trend nowadays, you know."

"Hmmm, and Vienna is joining in as well?"

"Sure, but in a Viennese style. 'Cause we're already top of class for water and waste management and loads of other stuff. Now, for all those ideas, we want to become number one the world over!"

"And what's the special Viennese thing about that?"

"Well, we do all that for everyone, not just for the folks with a lot of cash! All cities nowadays are trying hard to get smart. Though the special thing about Vienna is that we take better care of people."