



## VIENNA: MAKING PROGRESS IN SUSTAINABILITY

BY DAVID PINCHASOV



*St. Stephen's Cathedral (Stephansdom) in Vienna*

***“Vienna has already taken impressive measures in recent years towards reducing its overall impact on the environment, but there is still potential for improvement”***

Vienna is the capital and largest city of Austria with a population of 1.731 million, as of January 2014.<sup>1</sup> It is one of the nine administrative divisions of Austria, as well as its cultural, economic, and political center. In a city like Vienna, however, where day-to-day routines such as driving automobiles, manufacturing products, and construction all contribute to an increasing production of waste, the impact on the environment is often overlooked. For a city to be socially responsible it must protect against threats to its citizens' quality of life. The environment needs to be protected for future generations. Vienna is an interesting example of a city taking direct steps towards social and environmental responsibility in an effort to reduce its ecological footprint and improve the quality of life for its inhabitants.

The primary stakeholders for Vienna in these efforts are government bodies, local businesses, media, the education system,

and global organizations. It is the foremost responsibility of city authorities to ensure a high standard of living and to uphold safety regulations. But, of course, the most important group of stakeholders is the public. The public is concerned about the implications certain policies and decisions will have on their futures. Given their vested interests in the city's future, the public is a very important actor that also plays a significant role in the decision-making of the government administration.

Government bodies are very relevant to the development of a city as they define the future objectives and the key initiatives of the city. Most importantly, they set the regulatory framework to which all citizens, local businesses, and other stakeholders within the jurisdiction must adhere. In addition, government is a central player in continued urban development as it is tasked with strategic management as well as fiscal affairs.

Businesses have a significant impact on the environment as a result of their daily operations. Be it the unsustainable nature of the product manufacturing process or careless waste of energy and materials, businesses and corporations bear a considerable amount of responsibility as well as influence in government. The media today is incredibly influential as it can significantly affect public opinion. For instance, news regarding environmental scandals in a particular industry could lead to increased consumer awareness and affect which products they will support and which they will not.

The education system in a city has a very important role as well, as the students of today will be the managers, government authorities, and journalists of tomorrow. Education heavily influences the values and priorities of students. This could have a positive impact if, for example, a Sustainable Business class were offered that would encourage future business leaders to be more environmentally conscious.

Due to the effects of globalization, international organizations such as the World Trade, European Union, United Nations Organizations, World Wildlife Foundation, and Greenpeace have unprecedented levels of influence today in international politics as well as public discourse.

According to most economic, political, and social indicators, Vienna is among the world's top cities. People living in this city are mostly happy and show interest in sustainable living through support of organic and regional products. More specifically, there is a growing trend in Vienna to carry out events in an eco-friendly manner. For example, every year,

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there is a competition for sustainable cultural and sporting events in which all citizens have the chance to participate and come up with innovative ideas for the future of sustainability.

Waste prevention is one of the top priorities for Vienna's city management. On the one hand, conserving resources and preventing a continuous increase in the volume of waste helps reduce the negative impact on the environment. However, for Vienna, waste prevention is not only about ecological development, but also about economic growth. Qualitative waste reduction

(reducing the hazardousness of the waste) and quantitative waste prevention contribute to improving the quality of life. With the initiative *“natürlich weniger Mist - Projekte zur Abfallvermeidung”* (Natural Waste Reduction - Projects for Waste Prevention), members of the Department of Environmental Protection

tap on their expertise for new projects.<sup>2</sup>

Another concern for Vienna is to minimize food waste. Annually, Viennese households dispose of approximately 157,000 tons of fresh or unopened food. The cost and energy committed to producing food is high, accounting for long-distance transportation, refrigeration, and general logistical expenses. More energy and money is wasted when these foods are disposed of, as the disposal itself incurs additional costs. Over an entire 'life cycle', groceries place many strains on the environment. This is why the city of Vienna is devoted to avoiding food waste as much as possible. As such, authorities have developed a booklet with a plethora of measures, tips, and tricks for consumers and businesses to avoid food wastage.

In 2006, Vienna became the first European metropolis to propose and implement



*Hofburg Imperial Palace in Vienna*

an Urban Energy Efficiency Programme (SEP).<sup>3</sup> The city thus took on a pioneering role in the field of urban energy policy in Europe. The SEP offers strategies to enhance Vienna's energy efficiency by 2015. The main objective of SEP is to sustainably slow the increase of energy consumption without reducing consumption or the pace of growth in the standard of living. As most energy saving potential can be found in households, public and private service providers, as well as industrial and manufacturing enterprises, the measures outlined in SEP were targeted especially to these sectors, some of which include raising energy awareness among consumers, improving the energy balance of new buildings, and increasing the energy efficiency of heating and cooling systems.

The waste produced by the inhabitants of the city is transformed into valuable energy at the Spittelau waste-to-energy incinerator. The energy produced within this process provides heating to more than 60,000 households. Moreover, hospitals are connected to and supplied by this system. Another big source of sustainable energy is the Danube power plant at Freudenu, which provides electricity to half of the Viennese population by hydroelectric power.

Another interesting fact is that Vienna's clean tap water, which comes directly from the mountains in the vicinity, doesn't use additional energy since water pumping is not required. In addition, by passing through several hydroelectric power stations, the water generates power.

It is also impressive that Austria currently has no nuclear facilities generating electricity; public opinion is strictly against the idea of nuclear power generation. The government started to build a nuclear power plant in the 1970s, but this was not met with great public approval and was ultimately abandoned when the Austrian Parliament voted in favor of a ban on nuclear fission for energy production.

Vienna has an extensive public transportation network. It has a well-established metro network as well as hundreds of trams and bus lines which carry hundreds of millions of people each year. In coming years, the Vienna Lines will be investing about 460 million euros to expand the metro network and to maintain the current infrastructure. At the same time, more clean energy buses will enter operation, complying with the latest Euro VI emission standards.

In Vienna, one can rent bikes for free with the City Bike project. Another current transportation initiative in the city is car sharing. Car sharing companies like Zipcar or Car2Go are experiencing rapid growth and provide sustainable alternatives to owning a car for many city dwellers.

Vienna has already taken impressive measures in recent years towards reducing its overall impact on the environment, but there is still potential for improvement. In a smart eco-city, the expansion efficient residential centers, sustainable energy programs, and recycling initiatives are important for promoting environmental responsibility. A

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variety of measures can still be taken, however. For example, older buildings and public infrastructure can be retrofitted to be more energy efficient. Implementation of some of these ideas can be seen in the new urban development project of Seestadt Aspern.<sup>4</sup> ‘Smart’ buildings in this project prioritize energy efficiency. They are better insulated and they even generate solar energy. These buildings are no longer solely energy *consumers*, but also energy *producers*, thus requiring 40-60% less energy than buildings constructed a decade ago.

In terms of transportation, Vienna could actively support the electrification of public and private transport. An existing example of such is the Italian government’s support for the use of hybrid electric cars in Rome. In certain areas of the city, parking is free for hybrid electric cars. This innovative idea was well received among Rome’s inhabitants and it would be a positive next step for a city like Vienna towards reducing carbon emissions. To initiate such a movement, the city’s taxi fleets should gradually be converted to hybrid electric cars. Another possibility in alternative transportation is the use of bicycles. Vienna already supports the cyclists within the city with the City Bike project, but they could also subsidize bicycle purchases and start a bicycle campaign in schools to promote bike use in younger age groups. France, for example, started a new project in which employees who

commute to their workplace by bicycle receive a bonus depending on the distance travelled. In this way, the government promotes a more sustainable form of transportation while also supporting healthier lifestyles.

Furthermore, the education system has to adapt to today’s environmental challenges. It is very important for children and young adults to be aware of the critical state in which we find ourselves, so that new creative measures might emerge to help minimize the city’s impact on the environment. Youth are the future of our society. They will decide how our world will be run in years to come. Currently, there is no specific program in schools that is geared towards studying ethical environmental behavior. Our future would be in better hands if schools begin to engage students in such topics.

Vienna’s efforts to ensure a sustainable future for its inhabitants are noteworthy and commendable. The city has initiated several impressive projects. But, while they have begun to show positive results, there is still room for improvement. As the population continues to grow rapidly, the city can make use of new and innovative ideas, and thus serve as an example of sustainable urban development for the international community to follow.

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## **Vienna: Making Progress in Sustainability**

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1. Fact Sheet: Population, United Nations. <[data.un.org](http://data.un.org)>.
2. Vienna City Administration. <<https://www.wien.gv.at/umweltschutz/abfall/natuerlich.html>>.
3. Vienna City Administration. <<https://www.wien.gv.at/english/urbandevlopment/energy-planning/sep.html>>.
4. Vienna's Urban Lakeside. <<http://www.aspern-seestadt.at/en>>.

Image 1: <<https://c2.staticflickr.com>>

Image 2: <<http://pixabay.com>>