

УДК 330.342.44

## **SUSTAINABLE TRANSPORT: AUSTRIA'S EXPERIENCE**

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**№ 2 • 2019**

**Бизнес-образование в экономике знаний**

**60**

Vienna has one of the best public transport systems in the world. The road to sustainable public transport was long, through gradual changes. In fact, Vienna was not a pioneer in introduction of any particular policy concerning public transport, but it successfully adopted and implemented other cities' good experience. This paper studies Vienna's experience of promoting sustainable transport. It analyzes the range of policies adopted and implemented and political process that enabled implementation of policies. Vienna's experience reveals that implementation of sustainable transport policies is a long process which demands compromises, trials and errors. Vienna's success would be probably modest without generous federal support.

*Keywords:* transport, public transport, public transport policy, Vienna

Recent research suggests that in Western Europe, North America, and Australia car ownership, use, and driver licensing have been declining since 2000. Studies of travel mode for some high-income cities also find a decline in the share of car trips and an increase in the share of walking, bicycling and public transport during the past twenty years (Cervero 1998; Newman&Kenworthy 2015; UN habitat 2013). For example, Vienna (Austria) decreased car mode share by 13 % over the past two decades, Paris — by 10 %, Copenhagen — by 9 %, Amsterdam and London — by 8 %, Munich, Stockholm and Zurich — by 7 %, Hamburg — by 6 %, Berlin — by 5 %. It is indeed impressive that many European cities have been successful in adoption and implementation certain policies to reduce car mode share and promote public transport, cycling and walking. No doubt, the falling car mode share have had positive impact on quality of life.

This paper studies Vienna's experience of promoting sustainable transport. It analyzes the range of policies adopted and implemented and political process that enabled implementation of policies. Vienna's experience reveals that implementation of sustainable transport policies is a long process which demands compromises, trials and errors, coalition-building among stakeholders and political parties.

#### Transport history

Historically, Vienna has been reluctant in the adoption of car use. Nowadays, Vienna remains a compact, monocentric city (Csendes&Opil 2006; Pirhofer&Stimmer 2015; Buehler 2017). It has large areas used as parks, forests, vineyards (Solicker 2015). The share of land use for urban development and transport infrastructure remains below 50 % (Buehler 2017).

Economic growth in period of 1980–1990 led to increase of motorization rate from 90 to 257 cars per 1000 population (Csendes&Opil, 2006; Pirhofer&Stimmer 2007, Buehler 2017). As a result, the problems of congestion, parking, air pollution, noise, traffic injuries have increased (Knoflaeber 2015). Transport plans in 1960s and 1970s considered the construction of autobahns in the city, but public opposition was able to block almost all of these proposals. Since the beginning of the 1970s, preservation of the old town with narrow streets and town squares became a top priority. Both public and ruling coalition (Democrats and Conservatives) supported this policy.

Population of Vienna decreased from 1.63 million in 1961 to 1.49 million in 1990, then increased to 1.80 in 2015 (City of Vienna, 2015). Recent population growth was partly due to immigration from other countries (Buehler et al. 2017). According to official statistics, about 1/3 of Vienna's residents have immigrant origin. More than 50 % of Vienna's immigrants came from Eastern and Southeastern Europe. Probably, these immigrants also contributed to the rise of public transport use and cycling.

#### Politics and transport plans

Vienna is a capital of Austria. It has a special status as both a city and federal state. The mayor of the city is also the prime minister of the state (Pelinka 2013). Since 1945, all Vienna's mayors were Social Democrats, and all transport ministers were Social Democrats till 2010, when a Green became transport minister (City of Vienna 2015c). Social Democrats have traditionally been strong supporters of public transport, social housing, and labor (Buehler et al. 2017). The Greens have supported environmental protection, public transport, bicycling, walking, restrictions on car use and parking. As for Conservative Party, in 1970–1980s they had a strong pro-environmental wing that supported public transport, car-free zones, green-space protection, and traffic calming (Csendes&Opil 2006).

Vienna's suburbs are located in the state of Lower Austria, which have been governed by the Conservatives from more than fifty years (Buehler et al. 2017). Lower Austria government (Conservatives) strongly supported investments in autobahns in contrast with public transport which had got only minor investment. Nowadays, car mode share amounts 64 % of daily trips to Vienna suburbs, whereas in the city itself it amounts only 27 %.

Since 1993, there has been a dramatic shift towards public transport within the city. It can be explained by public transport improvements, especially expansion of the U-Bahn (metro). These policies of public transport improvements have been evolving over decades, gradually with one policy building on another (Buehler 2017).

The City of Vienna has adopted a number of Transport Plans (1980, 1983, 2003, 2014), which highlight the continuity of transport policy. Being formally adopted by Vienna parliament, these plans have served as policy guides. The goals, contained in these plans, included expansion of public transport, limitation of roadway expansion, restriction of on-

street parking, improvement of walking and cycling, expansion of car-free zones.

#### Public Transport Improvement

Vienna's public transport is one of the best in the world. By 1910, Vienna already has an extensive tramway system. For decades, tramway was the main public transit; nowadays, it remains the key part of public transport in Vienna. In recent years, tramway tracks, stations were significantly modernized. The tramway provides services outside of the U-Bahn corridors. It remains an integral part of streetscape of Vienna, and no political party advocates its elimination (Buehler 2017).

Interestingly, but tramway trip increased with the expansion of the U-Bahn, from 242 million in 1990 to 294 million in 2013 (Wiener Linien 2000–2015). During the same period, U-Bahn rideship has grown from 246 million to 429 million. Due to its greater speed, the U-Bahn is the main transit mode in contemporary Vienna (Buehler et al. 2017).

Construction of the U-Bahn in Vienna began in 1969. The first line was opened in 1978. By 2015, the U-Bahn network reached 80 km (Prillinger 2015). During considered period of time, improvements of the U-Bahn included increases in frequencies and hours of services, more comfortable vehicles, modernized and more accessible stations.

In addition to the U-Bahn, the tramway, bus and regional rail system form an integral network of complementary services. Since 1990, all types of public transport have been improves: new bus and rail vehicles, modernized stations (tram, bus, railway), shorter headways, time information.

#### Funding

Funding is always an important issue. As for Vienna, its finance minister from 1973 to 1994, Hans Mayrs, was able to negotiate a 50 % federal share of funding of U-Bahn investments. The federal contribution was facilitated through an agreement of 1978, which remains in effect to this day.

The federal government owns and operates the S-Bahn (the U-Bahn is owned and operated by the City of Vienna). The federal government finances 80 % of the S-Bahn capital costs and 100 % of the S-Bahn operating subsidies for a basic level of services. All other costs are covered by the City of Vienna and the state of Lower Austria. The main problem with the S-Bahn is that it needs thorough modernization (Buehler et al. 2017).

The federal government supports public transit in three ways. Firstly, the cost of public transport fares for daily commutes of school students are covered by the federal government. Second, administrative and planning costs of coordination are paid by the federal government. Third, the city gains revenue sharing funds from the federal government. Due to its capital status, the City of Vienna revenues are twice as much as proceeds of the states (in per capita term).

In addition to mentioned above funding, Vienna has three local sources of public transit finance. Passenger fare revenues cover about 55 % of operating costs of

public transit. Second. The city levies a public transport tax on large employers. Third, the city gets revenues from on-street parking and city-owned parking garages (Buehler et al. 2017).

#### Fare policy

In Vienna, fare rates have been low for decades (in contrast with other European cities) (Civity 2011). In 2012, the price for an annual ticket for unlimited travel within the city was reduced from 449 euro to 365 euro (by 20 %). In the same year, the monthly passes were reduced from 49.5 euro to 45 euro (10 %). The annual ticket for school students costs 60 euro, semester-long tickets for university students — 75 euro.

In general, 92 % of all transit trips to Vienna are paid for with annual, monthly, weekly, semester passes (Buehler et al. 2017). The public transport mode share in Vienna has risen by 3 % (36 %–39 %) from 2011 to 2013 (the years immediately before and after the fare reduction). This is significant rise.

The fare cuts were opposed by managers of the city's public transport system until the city government agreed to cover all revenue losses. In fact, fare reduction led to significant increase of total fare revenue. On the other hand, operating costs also increased because of increased service to satisfy the increased demand (Buehler et al. 2017).

#### Political and public support

In Vienna, support for public transport have traditionally been strong and widespread. Even the right-wing Freedom Party supports further expansion of the U-Bahn. Labor unions and business communities also appear to be strong supporters of public transit. A lot of public transport construction firms, suppliers, public transport itself are major employers who provide jobs for many people.

Public support for public transport is expressed by public opinion. In a 2014 survey, 98 % of Vienna's residents described public transport as good or very good (Omnitrend 2015).

#### Conclusion

Vienna has one of the best public transport system in the world. The road to sustainable public transport was long, through trials and errors, gradual changes. In fact, Vienna was not a pioneer in introduction of any particular policy concerning public transport, but it successfully adopted and implemented other cities good experience. Vienna gradually and cautiously introduced new policies, beginning with projects and then expanding. Vienna has always conducted before and after surveys to measure success (or failure) of implemented policy. In addition to surveys, Vienna has conducted public referenda to find out public opinion on controversial policies.

Finally, Vienna's success would be probably modest without generous federal support. Vienna as political, economic and cultural capital enjoys excellent financial support from the federal government. ■

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## **Устойчивый транспорт: опыт Австрии**

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Система общественного транспорта Вены является одной из лучших в мире. Дорога к устойчивому общественному транспорту была длинной, через постепенные изменения. На самом деле, Вена не является пионером в принятии какой-либо особенной транспортной политики, но она успешно применила хороший опыт других городов. В данной статье рассматривается опыт Вены в продвижении устойчивого транспорта, анализируются реализованные политики. Опыт Вены показывает, что реализация политики устойчивого транспорта представляет собой продолжительный процесс, который связан с компромиссами, попытками и ошибками. Кроме того, успех Вены, вероятно, был бы несколько скромным без щедрой поддержки федерального правительства.

*Ключевые слова:* транспорт, общественный транспорт, политика общественного транспорта, Вена

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