



Urban Node Workshop in Vienna

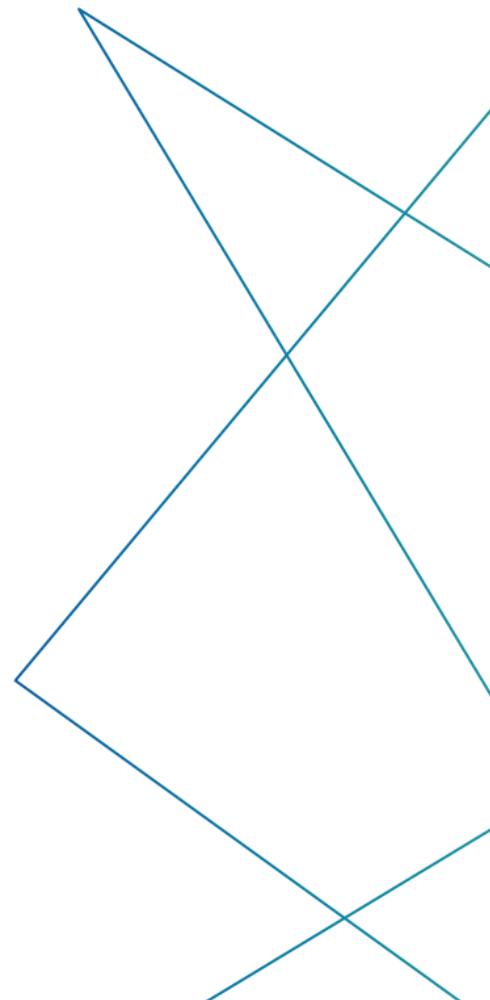
Results and Lessons Learnt

Short Version

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Executive summary

In January, Vital Nodes held its second urban node workshop in Vienna. The workshop was the first in a row of urban node workshops that will be organized throughout several European urban nodes in the coming two years. Fifteen Viennese stakeholders participated in the workshop which took into account (different modes of) infrastructure, mobility and spatial developments as well as its local, regional and (inter)national context.

Goal of the workshop was to discuss the challenges and needs for infrastructure and spatial development and potential related funding at European Union level. The workshop results will be input for future transport and infrastructure investments funding strategies. The workshop identified challenges, such as the lack of logistics oriented development, lack of coordinated spatial planning at functional area level and robustness and vulnerability of the network. It looked at good practices which included the local SUMP *SETP 2025*, the strategy on commercial spaces *Produktive Stadt*, and the *Wien Süd joint multimodal cargo terminal*.

Lessons learned

Interrelation between infrastructure/mobility management and spatial planning

One of the conclusions drawn by the participants is the lack of attention to the interrelation between spatial/land use planning and infrastructure/mobility planning on all scale levels, e.g. last mile delivery hubs the location of consolidation centres which directly impact movements in and out the city.

Awareness of the urban node function

There was little awareness of the role of Vienna in the TEN-T network. Within the strategic planning department of Vienna the focus is making local aspects function well. Therewith there is no awareness of the necessity to provide capacity for long distance freight transport. However European freight transport flows passing by Vienna from east to west and vice versa might be obstructed if the network surrounding Vienna has not got the capacity needed.

Interconnection between infrastructure networks

In and around urban nodes the same infrastructure (e.g. railway line) might be used for both local, regional and transnational transport and by both passenger and freight transport. If volumes rise on any of these, they might lead to bottlenecks for all.

Need for cooperation at the functional urban area

The region of Vienna is more directly impacted by the urban node function than the city itself. Through better metropolitan governance negative (environmental) effects might be mitigated and opportunities better exploited. In the case of Vienna the functional urban area, might even cross the border to include Bratislava.

1 Scope of the Workshop:

The workshop about the urban node Vienna was the first in a row of urban node workshops that will be organized throughout several European urban nodes on different TEN-T core network corridors in the coming two years. In this workshop participated some fifteen relevant stakeholders in the urban node Vienna, taking into account (different modes of) infrastructure, mobility and spatial developments as well as its local, regional and (inter)national context.

Goal of the workshop in the urban node Vienna was to jointly discuss the challenges and needs for infrastructure and spatial development and potential related funding at European Union level. In order to do this we deepened the question 'what is an urban node?' and based on the challenges that are specific for the urban node Vienna we discussed future possibilities.

The workshop results will be input for future transport and infrastructure investments funding strategies at urban, metropolitan and European levels thus improving the performance of the urban nodes throughout the entire TEN-T network.

2 Challenges urban node Vienna

The urban node Vienna can be identified by the fact that it is located on the cross-point of three TEN-T core network corridors (Baltic Adriatic, Orient/East-Mediterranean and Rhine-Danube). It covers four modes of transport both freight and passenger and is part of an European Union region covering parts of 4 Member States (Austria, Czech Republic, Slovakia and Hungary). In fact Vienna is bordering to different cohesion regions, especially with a strong relation with Bratislava.

On corridor level Vienna has an important role on the transit flows crossing Europe, from north to south and east to west and vice versa. Although most north-south freight flows go via Bratislava, more flows are expected to pass Vienna in the future, which makes linking local and regional developments and investments with the corridor level necessary.

A strong link is seen between the EU investments and the developments in the region of Vienna, because (future) capacity bottlenecks might become a European issue. Knowing that the EU regional policy funds dedicated for cohesion regions are different from EU funds for non-cohesion regions. Cohesion regions are Europe's poorest regions whose per capita gross domestic product (GDP) is less than 75% of the EU average. These include new member states such as Czech Republic, Slovakia and Hungary. So this issue becomes very specific for Vienna due to its non-cohesion neighbours, compared to other European urban nodes.

Preparatory analysis before the workshop resulted in three main challenges which have been validated and agreed upon with the stakeholders interviewed.

On basis of the preparatory analysis and the workshop three challenges can be seen:

- (Lack of) logistics oriented development
 - Link between long distance and last mile (city) logistics;
 - Organization of logistics centres/distribution centres and multi company hubs;
- (Lack of) coordinated spatial planning at functional area level
 - Ad hoc urban sprawl instead of coordinated polycentric urban development and multi-modal
 - Transport;
 - No common strategy with west and east (e.g. Bratislava);
- Robustness and vulnerability of the network
 - Capacity constrains national, regional and local (e.g. Danube crossing via road and rail);
 - Alternative routes (bypass South, East), modes and timing.
- TEN-T corridor, national and cross-border context

During the workshop, solutions, practices, impact and barriers/drivers for solutions have been discussed, using spatial design and based on facts and figures. Discussions took into account the TEN-T network scale, the regional scale and the local scale at which was 'zoomed in and out'.

3 Results

3.1 Examples of good practices from Vienna relevant to urban nodes and TEN-T corridors

3.1.1 STEP 2025

Vienna has developed an encompassing long-term strategy including a state-of-the-art SUMP (STEP 2025), which is stated to strive for a liveable, sustainable, affordable and prosperous city. However, Vienna as a city and the national administration have different perspectives of planning levels. The TEN-T Baltic Adriatic corridor passing via Vienna only has double-track rail to the east and only one rail bridge for freight crossing the Danube. Mixture of local/regional/long-distance (high-speed) passenger and freight trains will possibly lead to interruptions, traffic jams and collapses. An additional hindering aspect is the growing demand for 'just in time' freight delivery converging at the same time with peak hour rail transport, entering the city in the morning hours as well as incoming passengers transport. This will cause even more pressure on the same rail tracks. Robustness is an issue in that respect.

3.1.2 Produktive Stadt

From a spatial planning perspective the city, together with other stakeholders, thought about the claim of space this good handling would need, already in an earlier phase. In the 'Productive City' (Produktive Stadt), started in November 2017, the city is prominently mentioning the big need for space to handle goods. This is an initiative of Vienna and Lower Austria combining several other stakeholders at city and regional level. This approach should offer solutions for finding space for 'new' industrial functions in the

city of the future. As freight operators and national road and rail operators are not among the stakeholders (yet), the outcomes are expected to stay mostly within the silo of the own planners and business community.

In February 2018 a pilot will start in which six people will focus on the last mile logistics for six months during 50% of their working hours. The experiences gained in the project 'Binnenstadservice', a local independent urban logistics service centre in the Dutch city of Nijmegen, will act as a showcase for the approach in Vienna.

The interaction between the different policy fields (housing, distribution and planning policy) is interesting also when the distance from the consolidation centres to the city grows and causes lots of traffic in the city. The city of Vienna now reserved for what is needed, except for housing. While the brown fields traditionally are used as housing development locations. In an attempt to set aside those areas for future manufacturing and industrial work/mixed zones. To be able to give companies a place not only outside of the city centre, but also within – to limit the traffic movements. In this way the brown fields are now transformation and conversion areas, while not upgrading the areas “to death” by ruling out housing and upgrading. So no extra investments in these conversion areas in quality of urban space and green, otherwise it will become very expensive. However a challenge is the lacking link with the network.

The Stadtentwicklungsplan (City development plan) also claims space for housing. Around 800 plots are appointed on which a total of 150,000 housing units can be built to serve the demand in housing for the upcoming 10-12 years.

3.1.3 Micro and Midi hubs

Vienna is now looking for possibilities to develop micro hubs (100 – 150 m²) and midi hubs (1,000 m²) in the city. Perhaps Vienna's main terminals Wien-Süd and Hafen Freudenau offer opportunities for connecting long-distance and last-mile freight logistics. At the moment it is easier to find locations for the smaller micro hubs than for midi hubs, as empty shop space can be transformed into micro hubs. Rail access to midi hubs is much more difficult and expensive to realize so the choice was made for trucks delivery in order to get a realistic business case. At this moment there are no city restrictions as a low emission zone (LEZ) although discussion on implementing a LEZ has started in 2017. However a major bottleneck for rail freight to the midi hubs is the fact that a 40 ton truck driving from Budapest to Vienna only costs EUR 160 so this is very cheap. Combined with the low diesel prices this disadvantages a good business case for rail. One of the tools to support the position of rail freight could be national legislation as in Switzerland, where road use by freight transport is constrained to stimulate freight by rail.

3.1.4 Wien Süd (Inzersdorf) as joint multimodal cargo terminal

Considering the concentration of intermodal goods traffic in and around Vienna a multifunctional cargo terminal has been built in Inzersdorf – at the southern border of Vienna - at the interface of a rail line (the Pottendorfer rail line) and the S1 highway. The cargo centre is jointly developed by Vienna, Lower Austria and the Chamber of Commerce (WKO). Inzersdorf is well developed and there are no environmental problems although the bordering municipality in Lower Austria first intended to build houses close by the cargo terminal. This may seem a detail, but is in fact a sign of the lack of coordinated spatial planning at functional area level (as discussed elsewhere in this report).



Looking at the Norrköping experiences, recommendation for Vienna will be to include a connection between local initiatives (such as Wien Süd) and the European multimodal transport network. Besides Norrköping's holistic approach – connecting city redevelopment, zoning, and freight and logistics – is very interesting for Vienna. Challenge for the Austrian capital is to connect local and regional investments on a smart way to (potential) investments and added value at a higher, European level.

3.2 Opportunities identified

Apart from Wien-Süd several opportunities have been identified.

- Due to the improved railway connection within Austria, there are now fewer short-distance flights between Linz and Vienna. Connections between Salzburg and Graz and Vienna might be next in line. The hub & spoke system of Vienna Airport is changing in a way that shorter distances may be further shifted to rail depending on the rail network's further improvement. Future realization of a direct eastern railway link to Bratislava and Budapest may have a same sort of impact on the number of flights between Vienna and Budapest.
- Another opportunity that can be capitalized, within the four modes of transport, are the opportunities for the city of the backbone of Danube. With its international character and 10 countries along it, it becomes critical to maintain this river together. Vienna acts as a role model with the port, but sometimes lacks counterparts in other countries, while the Viennese port and the Danube have many possibilities for city development. Using the Danube for last-mile freight delivery has been discussed, but the possibilities of the Danube and Donaukanal are rather limited. Delivering goods via the Donaukanal is complex due to lots of leisure activities, being barriers to these developments. In Gothenburg, small boats delivering goods within the city can be seen as an example where a comparable situation is used to find innovative ways of last-mile freight delivery.
- The interconnection of functional areas might more general be more important than just cross-border traffic. An overlay of networks (namely the local, regional, national and international ones) is an important aspect to be considered on European level as relevant aspects to base investments and funding on.
- An example of which is the Lobautunnel (S1) that is planned on the Eastside of Vienna. This development, influencing the urban node Vienna as well as Bratislava by giving more possibilities to cross the Danube, will pass Vienna on the one hand and will serve as part of a trans-European axis on the other one (making the way from North to South and vice versa). In this business case Vienna should involve the EU, considering the effect on corridor level.
- Another initiative that might improve the metropolitan cooperation is 'The Productive City' (Produktive Stadt) that has been mentioned before. Recommendations are broaden the scope with freight into the city and to include national infrastructure providers as ASFiNAG (road) and ÖBB / RailCargo Austria (rail) instead of limiting to the local public transport agency Wiener Linien.

4 Lessons Learnt

- The important interrelation between infrastructure/mobility management and spatial planning. One of the conclusions drawn by the participants is the lack of attention to the interrelation between spatial/land use planning and infrastructure/mobility planning on all scale levels. One example are the last mile delivery hubs. Depending on their size and location in the city, this could mean that instead of one truck moving 24 ton, six trucks are moving four tons each. In this way, more space is claimed by transporting the same amount of goods. Moving consolidation centres out of the cities could also result in more movements in and out the city.
- Awareness of the urban node function. There was little awareness of the role of Vienna in the TEN-T network. Within the strategic planning department of Vienna the focus is making local aspects function well. Therewith there is no awareness of the necessity to provide capacity for long distance freight transport (“not my issue/problem”). However European freight transport flows passing by Vienna from east to west and vice versa might be obstructed if the network surrounding Vienna has not got the capacity needed. As European institutions themselves will not be able to build railway or road infrastructure through Austria, initiatives need to be considered by the Austrian stakeholders (national railway and/or road administrations) and these might be (partly) funded by the EU.
- Interconnection between infrastructure networks. In and around urban nodes the same infrastructure (e.g. railway line) might be used for both local, regional and transnational transport and by both passenger and freight transport. If all these different networks need more capacity, as it might be the case in fast growing Vienna, bottlenecks can appear more quickly than anticipated.
- Need for cooperation at the functional urban area. Even if the city of Vienna is not so directly impacted by its function as urban node, the region of Vienna is. Through better metropolitan governance negative (environmental) effects might be mitigated and opportunities better exploited. In the case of Vienna the functional urban area, in a TEN-T perspective, might even cross the country border and include Bratislava.
- The opportunity of logistics. Logistics is now in the Vienna region mostly seen as something that needs to be done. It is put away and not seen as something that can add value to the quality of the city and region. Participants assessed the thinking is now quite sequential, many years there are thoughts on road projects (e.g. now on the Lobautunnel), but nevertheless people are surprised by the impacts the development has after 10-20 years. It can be worthwhile to plan ahead and in an integrated way.