

Vital Nodes:

How to connect Europe's urban nodes with the European transport network?

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- Recommendations
- Follow-up



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 769458

Vital Nodes project and goals

- Deliver validated recommendations for a more **effective and sustainable integration** of all 88 **urban nodes** into the **TEN-T corridors** focusing on freight logistics
- Establish a **long-lasting European expert network** based on existing (inter)national and regional networks for safeguarding long-term continuity in knowledge and implementation



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Approach Multi scale level

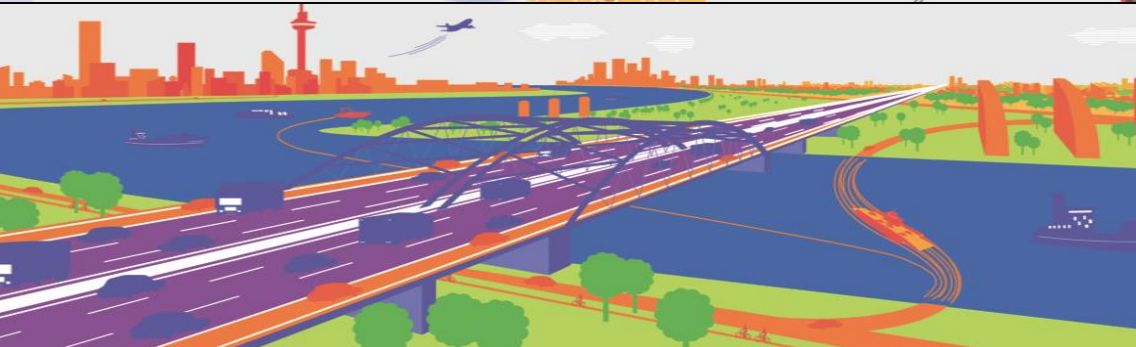


EU regional scale
European corridor
(TEN-T)
National level
infrastructure, spatial quality,
water and climate issues



Functional Urban Area
mobility, multimodality
(SUMP)

Optimize interaction
TEN-T corridors and Urban
Nodes

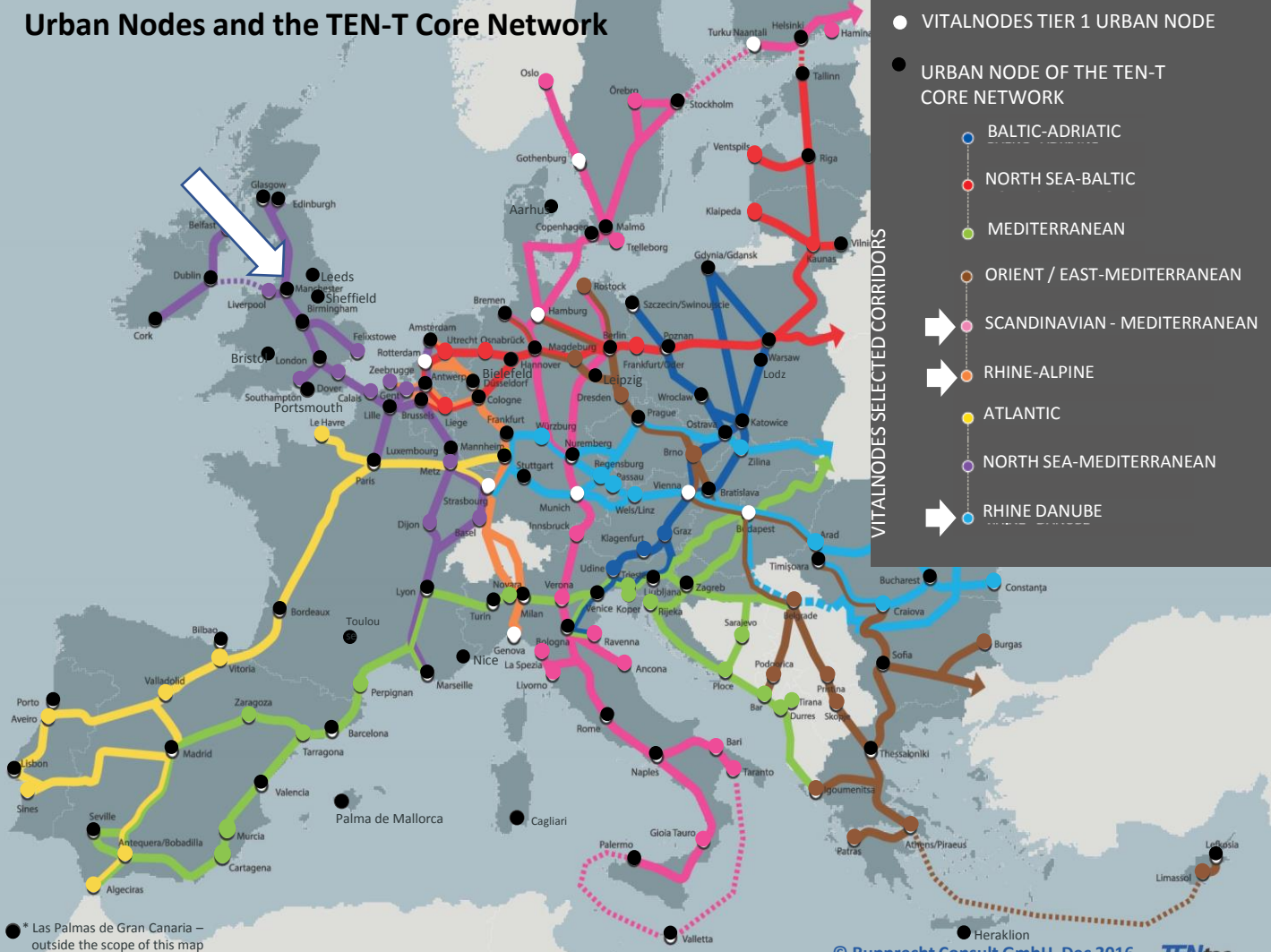


Local level
liveability (SUMP)

Synchronize land-use and
infrastructure planning
Capture economic,
environmental and social
value



Urban Nodes and the TEN-T Core Network

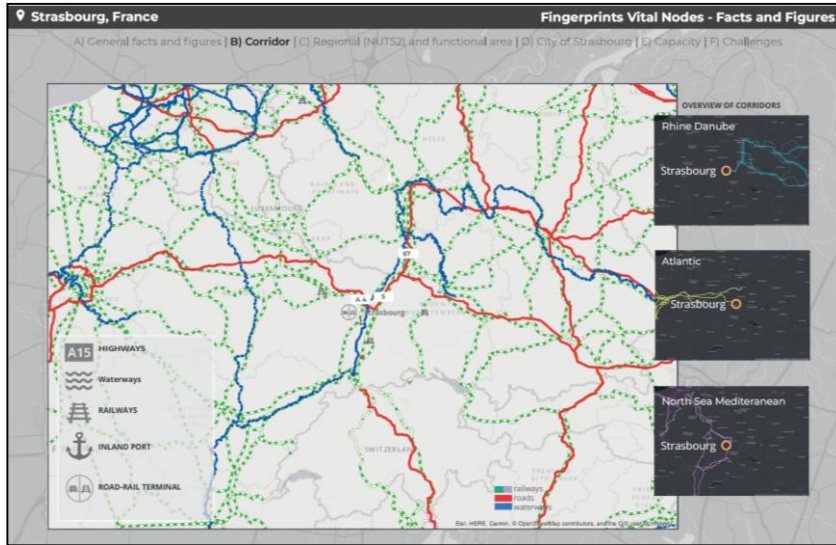


Tier 1 urban nodes:

- Vienna (AT)
- Rotterdam (NL)
- Gothenburg (SE)
- Budapest (HU)
- Hamburg (DE)
- Genova (IT)
- Turku (FI)
- Strasbourg (FR)
- Mannheim (DE)

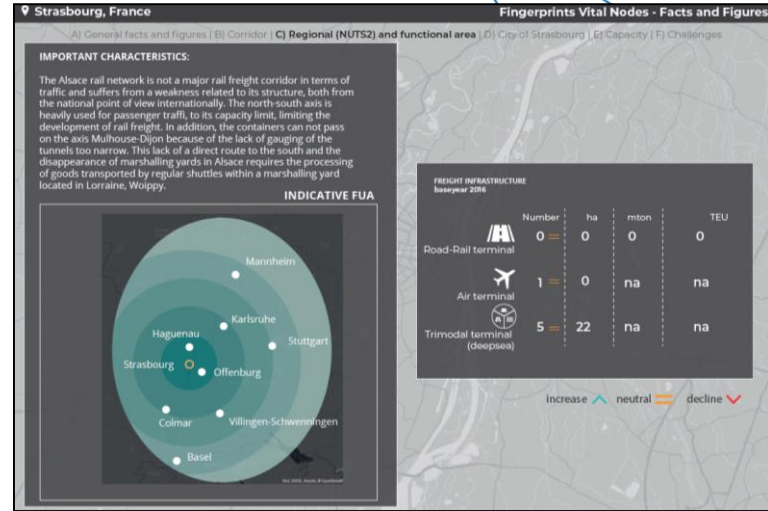
Maps on 3 levels

- example Strasbourg, France



Level of TEN-T corridors (road, water, rail)

Level of Metropolitan urban region / Functional Urban Area

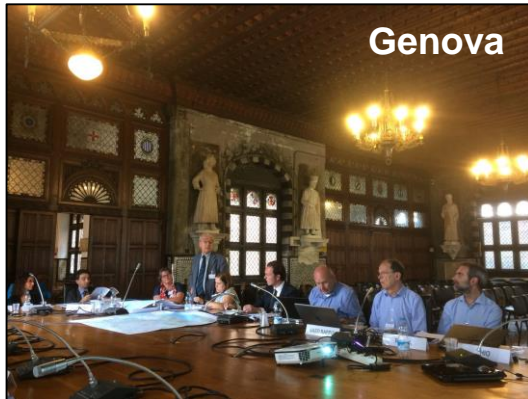


Local level



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Urban nodes workshops (Spring 2018)



Trends and challenges

Level of international corridors (TEN-T)

- Global trade supply chain: huge volumes via limited number of EU ports, distribution via TEN-T networks to consumer
- International optimization of logistics chains

Metropolitan area / functional urban area

- Corridor and urban-regional scales compete on urban ring roads (link with last-mile distribution)
- E-commerce boom and socio-economic impact (incl. labour market)
- Little interest/awareness on a policy and strategy level of logistics and freight transport

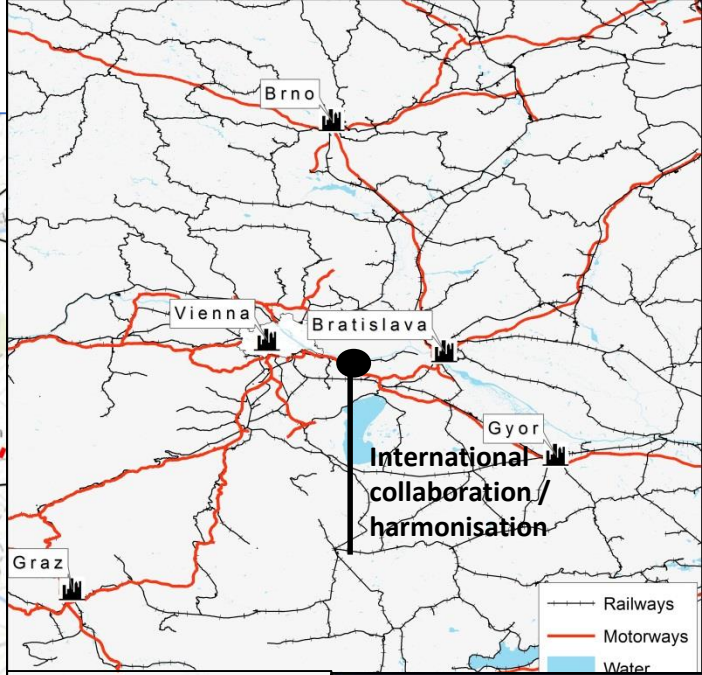
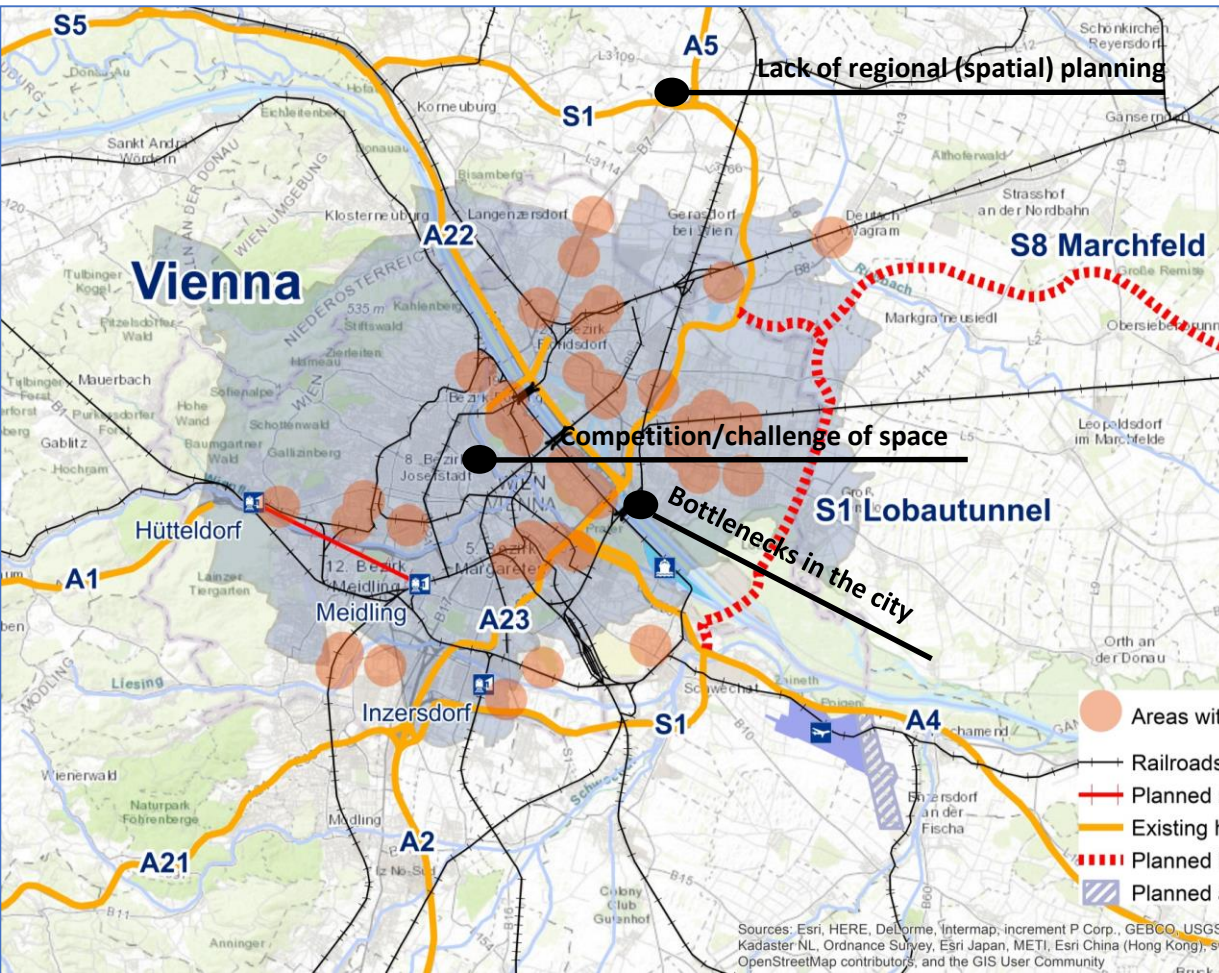
Local level (daily urban system)

- Urban growth and densification
- Growing freight volumes and flows (construction works, e-commerce)
- Impact of transport and mobility: safety, noise, emissions



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Challenges - Example - Vienna



NEU LAGERFLÄCHE + BÜRO ZU VERMIETEN

LOGISTIKZENTRUM WIEN-NORD

2.500 m² bis 24.000 m² Fertigstellung Q2 2017

Wien Nord Logistikzentrum

Halle E - 10.000 m²

Halle F - 10.000 m²

Halle G - 10.000 m²

Halle H - 10.000 m²

Halle I - 10.000 m²

Halle J - 10.000 m²

Halle K - 10.000 m²

Halle L - 10.000 m²

Halle M - 10.000 m²

Halle N - 10.000 m²

Halle O - 10.000 m²

Halle P - 10.000 m²

Halle Q - 10.000 m²

Halle R - 10.000 m²

Halle S - 10.000 m²

Halle T - 10.000 m²

Halle U - 10.000 m²

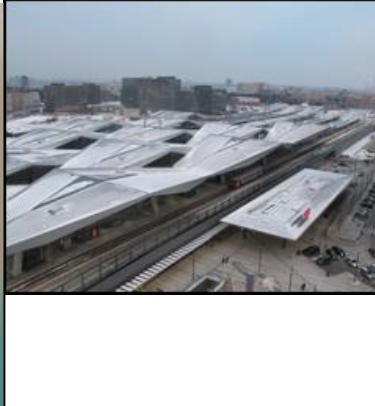
Halle V - 10.000 m²

Halle W - 10.000 m²

Halle X - 10.000 m²

Halle Y - 10.000 m²

Halle Z - 10.000 m²



Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), Swisstopo, OpenStreetMap contributors, and the GIS User Community

Recommendations

- SPATIAL**
 - Challenge of space > Integrated planning approach, research by design
 - Connect different scale levels and strengthen socio-economic relations
 - Besides TOD also LOD: logistics oriented development > consolidation centers on all scale levels
- NETWORK**
 - Explore the Functional Urban Area (beyond passenger transport and last-mile logistics)
 - Resilience of the network and infrastructure fitness: bottlenecks in (growing) urban nodes and on the wider TEN-T corridors
 - Optimize network via multimodal solutions, better management of modes and chains
- VALUE**
 - Mixture of coherent small investments; cross-border + comprehensive network; stimulate multi-stakeholder governance
- INSTITUTIONAL**
 - Stimulate regional spatial planning governance + governance at functional urban area
 - Governance of city-oriented consolidation centers and multi-company hubs
 - Cross-border collaboration and harmonisation



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Dissemination and follow-up activities

- CIVITAS Forum, Umeå (19 September 2018)
- Urban Freight Conference, Gothenburg (17-19 October 2018)
- Corridor Conference, Aachen (6 November 2018)
- Workshop Rotterdam, Waal-Eemhaven (8 November 2018)
- Policy dialogue, Brussels (8 November 2018)
- Follow up workshop Gothenburg (1st half 2019)
- Tier 2 and Tier 3 activities (1st half 2019)
- Urban nodes FORUM, Budapest (April 2019)



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Towards vital urban nodes

Thank you for your attention

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