Vital Nodes: How to connect Europe’s urban nodes with the European transport network?

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Vital Nodes 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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Urban Nodes and the TEN-T Core Network

**VITALNODES URBAN NODES**
- Berlin (DE)
- Madrid (ES)
- Athens (GR)
- Sofia (BG)
- Tallinn (EST)

**URBAN NODE OF THE TEN-T CORE NETWORK**
- Bratislava (SK)
- Warsaw (PL)
- Prague (CZ)

**BALTIC-ADRIATIC**
- Vilnius (LT)
- Kaunas (LT)

**NORTH SEA-BALTIC**
- Riga (LV)
- Tallinn (EST)
- Helsinki (FI)

**MEDITERRANEAN**
- Genoa (IT)
- Barcelona (ES)
- Palma de Mallorca (ES)

**ORIENT / EAST-MEDITERRANEAN**
- Istanbul (TR)

**SCANDINAVIAN - MEDITERRANEAN**
- Copenhagen (DK)
- Oslo (NO)

**RHINE-ALPINE**
- Paris (FR)
- Lyon (FR)

**ATLANTIC**
- Lisbon (PT)

**NORTH SEA-MEDITERRANEAN**
- Brussels (BE)

**RHINE DANUBE**
- Vienna (AT)
- Budapest (HU)

**Urban nodes:**
- Vienna (AT)
- Rotterdam (NL)
- Gothenburg (SE)
- Budapest (HU)
- Hamburg (DE)
- Genova (IT)
- Strasbourg (FR)
- Mannheim (DE)
- Munich (DE)
- Lubljana (SLO)
- Gdynia/TriCity (PL)
- Venlo (NL)
- Duisburg (DE)
- Cologne (DE)
- Piraeus (GR)
- Bilbao (SP)
- Antwerp (BE)
- Sofia (BG)
- Tallinn (EST)

* Las Palmas de Gran Canaria – outside the scope of this map
Urban nodes workshops

Rotterdam

Gothenburg

Hamburg

Genova

Budapest

Turku
Approach

• Discussing challenges, solutions, impacts, good practices and added value for Europe
• ‘Fingerprint’ of the urban node – trends, facts and figures
• Maps on three levels (local, region / Functional Urban Area, TEN-T corridor)
• Linking different scales (city, metropolitan area, cross-border, corridor), topics (spatial planning, infrastructure, passenger and freight transport) and dimensions
EU regional scale
European corridor (TEN-T)
infrastructure, spatial quality, water and climate issues

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Functional Urban Area
mobility, multimodality (SUMP)

Optimize interaction
TEN-T corridors and Urban Nodes

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Local level
liveability (SUMP)

Synchronize land-use and infrastructure planning
Capture economic, environmental and social value
Trends and challenges (1)

- Urban growth and **densification**
- Digitalisation and **e-commerce** (robotising, automation and reshoring)
- **Growing freight volumes** and flows (construction works, e-commerce)
- Huge volumes via **limited number of EU ports**, distribution via TEN-T networks to consumer
- **Impact of transport** and mobility: safety, noise, emissions
- Impact of large **(XXL) distribution centers** on network resilience
Trends and challenges (2)

- Corridor and urban-regional scales compete on urban ring roads
- Link with last-mile distribution and socio-economic impact
- Mobility and freight transport policies via SUMP: micro hubs, LEZ, incentives for cleaner vehicles, etc.
- Transition ports and industrial areas
- Development of (small) local warehouses
Recommendations and future needs

• Follow the **corridor approach** more systematically
• Improve cooperation and harmonisation **across borders**
• **Cooperate** more intensively across institutions (public and private), *build trust*
• **Share data** – and transport capacities - *consistent data for adequate planning*
• **Consult** with Urban Nodes and within Urban Nodes (bottlenecks within urban nodes – awareness raising)
• Establish **fact-based funding** approach more widely
• **Plan** more actively for modal shift (in freight) – integrated approach  
  • Sustainable Urban Mobility Plans (SUMP) for '**functional urban areas**'
  • Build competence, facilitate exchange of good practices
  • Network resilience as a key criterium (e.g. for traffic network management)
Towards vital urban nodes
Thank you for your attention

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Why are we doing this now?

We need to contribute **consolidated needs and facts** about Urban Nodes to the European **policy development** process:

- **New European Commission**
- **Horizon Europe** – the next research and innovation framework programme
- **Connecting Europe Facility (CEF)** – the new funding programme for the TEN-T
- **Legislation** in preparation, e.g. Combined transport directive review
- **EU Multiannual Financial Framework 2021 – 2027**
Challenges - Example - Vienna

- Lack of regional (spatial) planning
- International collaboration/harmonisation
- Competition/challenge of space
- Bottlenecks in the city

Vienna

Lack of regional (spatial) planning

International collaboration/harmonisation

Competition/challenge of space

Bottlenecks in the city