

How to improve the efficiency of the transport system in urban nodes of the TEN-T core network

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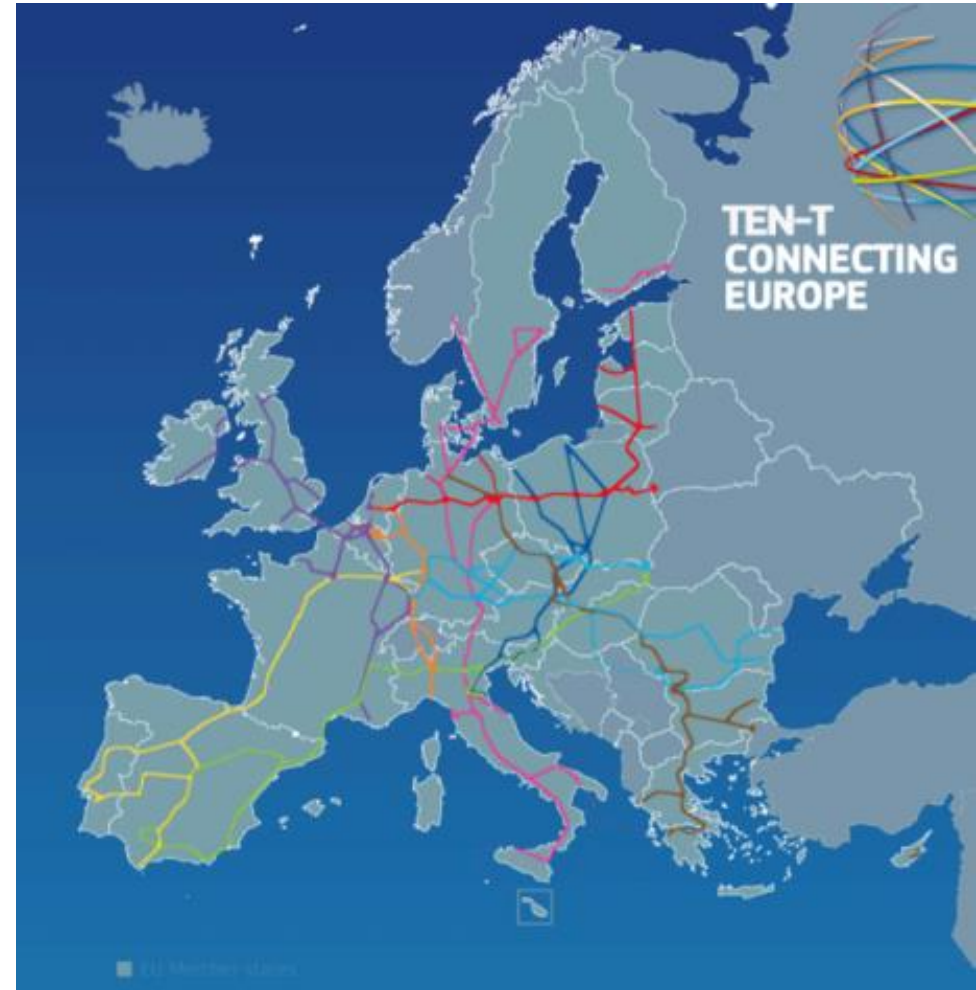


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The TEN-T context

- Since 2013, a new EU policy for **transport infrastructure development** for a trans-European network
- The **Connecting Europe Facility (CEF)**
- Definition of a **dual layer network approach** (comprehensive and core network) and priorities
- Identification of **nodes as skeleton** of the network
- Identification of **88 main nodes** of the core network based on statistics
- **9 core network corridors** and European coordinators for governance and implementation of the policy



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The TEN-T context for 88 urban nodes

- **Interconnections** between the transport modes of the TEN-T for passengers' and freight traffic.
- **Closing gaps**, in urban areas, **within modes** (TEN-T railway stations, airports, ports)
- Ensuring **seamless connections** between TEN-T infrastructure and infrastructure for regional and local traffic (passengers & urban freight)
- Relieving the **negative effects of transit traffic** on urban areas



What is the issue from the nodal perspective?

- **How to align** TEN-T policy as a large scale infrastructure programme and urban policy addressing multiple objectives (e.g. accessibility, safety, low emissions, quality of life)?
- **Where to invest** and **how to assess** the benefits of an urban transport projects for its nodal function and contribution to local objectives?
- **How to deal** with the multitude and integration needs of stakeholders and interests?
- **How to participate** in the dialogue of corridor development and works plans?



Images: BKK Centre for Budapest Transport



Study for DG MOVE , Directorate C – Innovative & sustainable mobility (2015/2016): Improving the efficiency of the transport system in urban nodes of the TEN-T core network

Objectives and outputs

1. To **identify cost-effective measures** to improve the efficiency of the transport system in urban nodes of the TEN-T core network through a tailored-made **assessment methodology**.
2. To draft **recommendations** for urban nodes on how to further improve the efficiency of transport in urban nodes.
3. To **replicate** the most effective measures in other urban nodes through **exchange and knowledge transfer**.



Collaboration with 4 pilot nodes of the core network

- **Analysing** the role in the TEN-T and transport movements in four urban nodes
- **Identification** of local objectives and important transport policies, measure and projects
- **Exchange** about planning practices, integration of regional and national stakeholders and how to set priorities
- **Data collection** (real and/or provisional) for the assessment of selected transport projects
- **Test of the efficiency** of projects using a methodology combining elements of CBA and MCA

Genoa



Helsinki



Rotterdam



Ljubljana



Guiding questions

1. What are **cost-efficient measures** which contribute to the nodal function?
2. What **methodologies** should be used to identify and prioritise measures?
3. What **policy framework** is needed to support urban nodes in developing their nodal function across Europe?



Key findings: localised strategies

Our four selected urban nodes, i.e. all 88 urban nodes differ in regard of geography, demography, governance, planning cultures, traditions, network characteristics etc.

- Urban nodes are **very different and are complex systems**.
- Therefore, there is **no one-size-fits-all solution**.
- Urban nodes need to **develop localised strategies and policies**.



Key findings: effective measures

Each one of the four pilot urban nodes is considering a great collection of potentially effective measures.

- **Cost-efficiency is only one important selection criterion** among other objectives.
- Urban nodes have a **multitude of objectives** (accessibility, quality of life, safety, land use etc.).
- Urban nodes look at measures from the **city perspective** rather than from the **TEN-T perspective**.
- On the local level, packages i.e. the **combination of different measures** in order to reach high level local objectives are considered important instead of single measures.



Key findings: urban policy focus

Urban nodes are becoming more and more aware of their TEN-T function.

Packages of measures take into account TEN-T corridor planning e.g. through:

- **inter-modal hubs** connecting TEN-T elements (main railway stations, ports, airports) among themselves, to the urban transport system, and to the TEN-T core network.
- improvements of the **railway infrastructure and ITS**
- enhancement and capacity development of **public transport services** at the metropolitan level
- **promotion of active mobility** (walking and cycling) to provide capacities to other modes.



Key findings: integrated planning

Planning process:

- Not all urban nodes have gone through a SUMP process

Evaluation methods (application of assessment tool):

- To identify, select and prioritise measures in a multi-stakeholder process was considered particularly useful
- The assessment tool can either help to prioritise measures or to re-evaluate an existing list of measures.



Best practice: Helsinki

Regional Transport System Plan

- The latest Helsinki Region Transport System Plan (HLJ) 2015 process combines **Land Use**, **Housing** and **Transport planning**
- **Strong cooperation between 14 municipalities in the Helsinki region + agreement between the government and Helsinki region municipalities to support infrastructure investments and housing**
- **Cooperation principles:**
 - More prioritising in short term (2030) and flexibility in long term (2050)
 - Check points and synchronising
 - Efficient usage of existing knowledge and focus on planning
 - Continuous impact assessment guides the planning process
 - Transparency, clarity and justification in interaction



Key findings: knowledge transfer

A clear strategy for exchange and knowledge transfer from one urban node to the others is lacking.

- The potential for **replication is limited** due to the diversity of nodes.
- **There are a good practices** (integrated planning processes for multimodal transport, stakeholder integration, use of different funding sources e.g. in Helsinki, Frankfurt, Paris) but they are isolated and not part of a transfer strategy.
- Only recently, **the urban nodes concept is being integrated** in the dedicated annual TEN-T event (TEN-T Days).
- There is **little indication of coordination** of urban policies/technology development in each core corridor.



Recommendations for TEN-T and urban policy

- **Initiate a systematic exchange** on effective measure identification among urban node stakeholders.
- **Update existing indicator** and assessment frameworks to assess efficiency of urban nodes appropriately.
- **Support deeper integration** of TEN-T perspective into urban/ regional policy-making.
- **Coordinate corridor-specific development** of technology deployment (e.g. C-ITS, alternative fueling infrastructure) and policy implementation (e.g. pricing/ access, freight).
- **Raise mutual awareness** of TEN-T dimension among urban stakeholders and increase understanding of urban mobility framework and policy requirements within TEN-T community.
- **Facilitate “Integration” as a key concept** of further development of the urban dimension of the TEN-T.



Online course for urban nodes:

Integration of urban nodes in the TEN-T corridors

The course offers an overview of the urban node concept and its benefits, describes the ever-growing importance of urban nodes in the TEN-T context, looks at the methods to assess the most cost-efficient transport measures and presents four case studies and their evaluation experience.

<https://www.mobility-academy.eu/>



Thank you for your attention!

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