Urban nodes in the revised TEN-T regulation

ERRIN-Polis ad-hoc working group on the TEN-T regulation











What we recommend

- Expanding the definition of urban nodes
- Introducing specific criteria for urban nodes

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- Strengthening innovation in urban nodes
- Intermodality and sustainability

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- Better integration of urban nodes in the TEN-T network
- Giving urban nodes the same importance as other priorities in the TEN-T regulation *Cédric Aubouin, Paris/Ile-de-France Region*





Urban Nodes Definition and Criteria







Expanding the definition of urban nodes

- To accelerate the transformation needed in the transport system to meet the 2030 and 2050 objectives of the TEN-T policy, the definition of urban nodes should be expanded beyond a single city administration.
- In our view, urban nodes can be cities, industrial areas, agglomerations, or metropolitan areas.
 Only by doing so, the interdependencies between and within long-distance and regional transport structures and their better multimodal connection can be addressed adequately.
- Using the Eurostat definition of functional urban area as a definition is a step in the right direction as the functional urban area is an important link between urban nodes and policies such as the SUMP guidelines. However, it does not fully satisfy what an expanded definition should achieve in terms of addressing issues that require an integrated policy answer that goes beyond the city level to also include the peri-urban and regional area's surrounding cities. The functional urban area also does not take into account polycentric regions with more than one densely populated area. We invite Eurostat/OECD/EU to expand the definition framework.





Our proposed definition

'Urban node' means a functional area

that encompasses <u>one or more core cities</u>, as well as the <u>peri-urban</u> <u>and regional areas surrounding cities or polycentric city-systems</u>,

where the <u>transport infrastructure of the trans-European transport</u> n<u>etwork</u>, such as ports including passenger terminals, airports, railway stations, logistic platforms and freight terminals,

is interconnected between the different modal hubs and

<u>connected with the regional and local transport and traffic</u> <u>infrastructure</u>.





Introducing specific criteria for urban nodes

- Similar to the definition of urban nodes, the criteria for the selection of urban nodes should be expanded to not ignore any valuable nodes and hence accelerate the progress towards the 2030 and 2050 objectives to complete the core and the comprehensive network.
- These new criteria should be based on the geographical location (making abstraction of national and regional borders) on the core and comprehensive network (connector function) as foundation and could be extended by having a regional economic or commuter hub function (see ERRIN position document)
 - Transformation nodes
 - modern industrial nodes
 - R&I nodes
 - Visitor economy nodes
 - Digital nodes
- Establishment or revision of strategic and operational planning frameworks in view of urban nodes functionalities, advancing energy, digital and mobility objectives in line with EU legislation, ambitions and plan horizons (2030/2050).
- Commitment to **monitor mobility status** using the SUMI indicators





Innovation, intermodality and sustainability









Strengthen innovation in urban nodes

- Innovation in urban nodes is key to meet the challenges of building a modern integrated transport system that meets the challenges of decarbonisation, efficiency, and inclusive growth.
- Innovation in ITS and smart applications as well as cooperative, connected, automated mobility solutions have an important role to play in addressing congestion and pollution in urban nodes.
- By strengthening innovation in urban nodes this transformation would be accelerated and the achievement of the 2030 and 2050 objectives of the TEN-T would be sped up.

Amending the Article 30 – Urban nodes

Amending the first sentence in Article 30: "When developing the comprehensive network in urban nodes **in accordance with article 6**, Member States shall, where feasible, aim to ensure:"

Amending Paragraph d) e.g. "seamless connection between the infrastructure of the comprehensive network and the infrastructure for regional and local traffic and urban freight delivery, including logistic consolidation and distribution centres, also supporting smart mobility systems and services;"

Useful to add here because article 6 encompasses the following sentence (if amended successfully):

comprising a comprehensive network and a core network with urban nodes as connecting points between the different transport modes and between long distance traffic and the regional and local transport networks.

Amending the Article 33 – New technologies and innovation

(a) support and promote the decarbonisation of transport through transition to innovative and sustainable innovative mobility solutions transport technologies; for all modes

(b) make possible the decarbonisation of all transport modes by stimulating energy efficiency, introduce alternative propulsion systems, **as defined in the AFID** including electricity **and hydrogen** supply systems, and provide corresponding infrastructure. Such infrastructure may include grids and other facilities necessary for the energy supply, may take account of the infrastructure-vehicle interface and may encompass telematic applications;

(c) improve the safety and sustainability of the movement of persons and of the transport of goods with the development of cooperative, cooperative and connected mobility with the 5G as an enabler

(d) improve the operation, management, accessibility, interoperability, multimodality and efficiency of the network, including through multimodal ticketing and coordination of travel timetables **under the governance of the PTO's**;

(e) promote efficient ways to provide accessible and comprehensible information to all citizens regarding interconnections, interoperability and multimodality;

(f) promote measures to reduce external costs, such as congestion, damage to health and pollution (focus on specific urban nodes pollutants such as NOx) of any kind including noise and emissions;

(g) introduce security technology and compatible identification standards on the networks;

(h) improve resilience to climate change;

(i) further advance the development and deployment of telematic **CCAM** applications within and between modes of transport.





Intermodality and Sustainability

- Intermodality will boost the modal shift from private and more pollutant modes to those that are more likely to fit into the goals of the Green Deal.
- These modes must be the key to increase transport and energy efficiency as well as the use of alternative fuels. More sustainable modes of transport, like rail or inland shipping and innovative approaches to support the modal shift for passengers and goods, should play a larger role in a TEN-T policy aligned with the Green Deal and it must be strengthened in the urban nodes.
- Also, the crucial role of urban nodes for the fulfilment of climate neutrality by 2050 should be highlighted and underlined by a reference to an Integrated Mobility Planning Framework-concept.





Amending the Article 30 – Urban nodes

Amending Paragraph a) and b) at the end e.g. "...supporting the shift to sustainable modes of transport and digitalisation of mobility".

Update Paragraph f) e.g. "promotion of efficient low-noise and low-emission mobility for passengers and goods and mirroring the SUMP principles, as well as supporting system integration (ICT, energy and transport)".

Amending the Article 41 and Annex II.2

Incorporate rail nodes and especially important rail passenger hubs ; e.g. paragraph 1) (a) "urban nodes, including their ports, rail hubs and airports" and new extra provision "(f) main railway stations for passenger transport".

Inland shipping is already explicitly named here





Urban Nodes Improved integration and status in the TEN-T







Better integration of urban nodes in the TEN-T network

- Creating cohesion between long-distance, regional, and local traffic requires efficiency – through connecting nodes and stimulating new innovative technologies – and sustainability – by lowering emissions (pollutant and GHG) and minimising external costs.
- To achieve this integration, three layers need to come together: infrastructure, connectivity, and services.
 - Upgrading the infrastructure to the same level across Europe will allow for interoperability/connectivity of the systems which in turn will allow public authorities to develop and implement new services, ultimately
 - offering a seamless user experience for passengers and seamless logistic chains for goods from the first to last mile.





Amending Article 6 – Dual-layer trans-European transport network structure

Amending Paragraph (1) as follows: "The gradual development of the trans-European transport network shall be achieved, in particular, by implementing a dual-layer structure for that network with a coherent and transparent methodological approach, comprising a comprehensive network and a core network *with* urban nodes as connecting points between the different transport modes and between long distance traffic and the regional and local transport networks."

Amending Paragraph (2) e.g. "The comprehensive network shall consist of all existing and planned transport infrastructures of the trans-European transport network as well as measures promoting the efficient and socially and environmentally sustainable use of such infrastructure *through connectivity and services*."







Giving urban nodes the same importance as other priorities in the TEN-T regulation

- Seeing that mobility issues congestion, pollution, intermodality – are increasingly concentrated in urban and metropolitan areas, the priority of urban nodes must be strengthened to increase the performance of the network, specifically as more links near completion.
- Strengthening urban nodes in the TEN-T regulation would ensure that they meet **current and future challenges** while providing smart, efficient, and sustainable transport.
- Several of the EU's overarching policy objectives the Green Deal, digitalisation, and the recovery response to the COVID-19 pandemic – cannot be achieved without a stronger integration of urban nodes and ITS in European transport policy.



Amending articles 4 and 6

Proposal for Amend art. 4a point (i) add **"and urban nodes"** at the end and art. 4a point (iii) add "in **urban nodes"** at the end.

- Amend art. 4b point (ii) as follows: "the interconnection and interoperability of national, regional and local transport networks" and art. 4b point (iii) by adding "especially in urban nodes" at the end.
- Add in art. 4c, a new point (iv): **optimal synergy between long-distance and regional and local traffic flows** in urban nodes to reduce the external costs of mobility
- Add in art. 4d, a new point (iii): sufficient exit and entry points for seamless mobility with all transport modes through densely populated (urban) areas
- Add in art 6, paragraph 1 the following text: with urban nodes as connecting points between the different transport modes and between long distance traffic and the regional and local transport networks.





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