



TEN-T & URBAN NODES: CHALLENGES & OPORTUNITIES

May 2023, ITS Congress



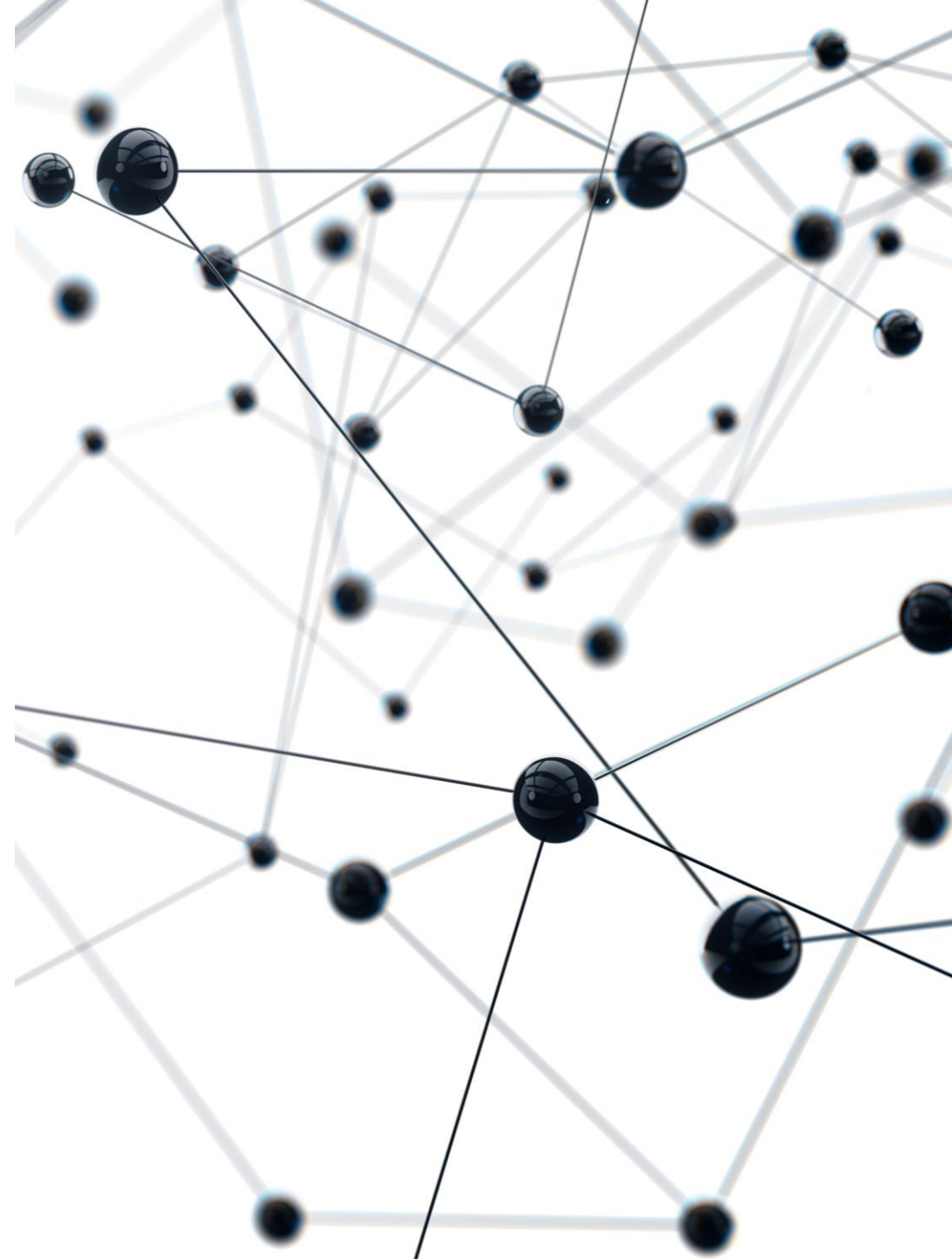
TEN-T | ENABLER FOR, DEPENDENT ON

Pillar for infrastructure policy in Europe

TEN-T take-up sector specific legislation (i.e. TSI, road safety) but sectoral policies also need TEN-T network for its implementation (i.e., ITS, Alternative Fuels, Innovation & resilience)

Promoting connected multimodal mobility

Network development and synergies between the infrastructure and operational aspects of the network.



URBAN NODES & TEN-T EVALUATION

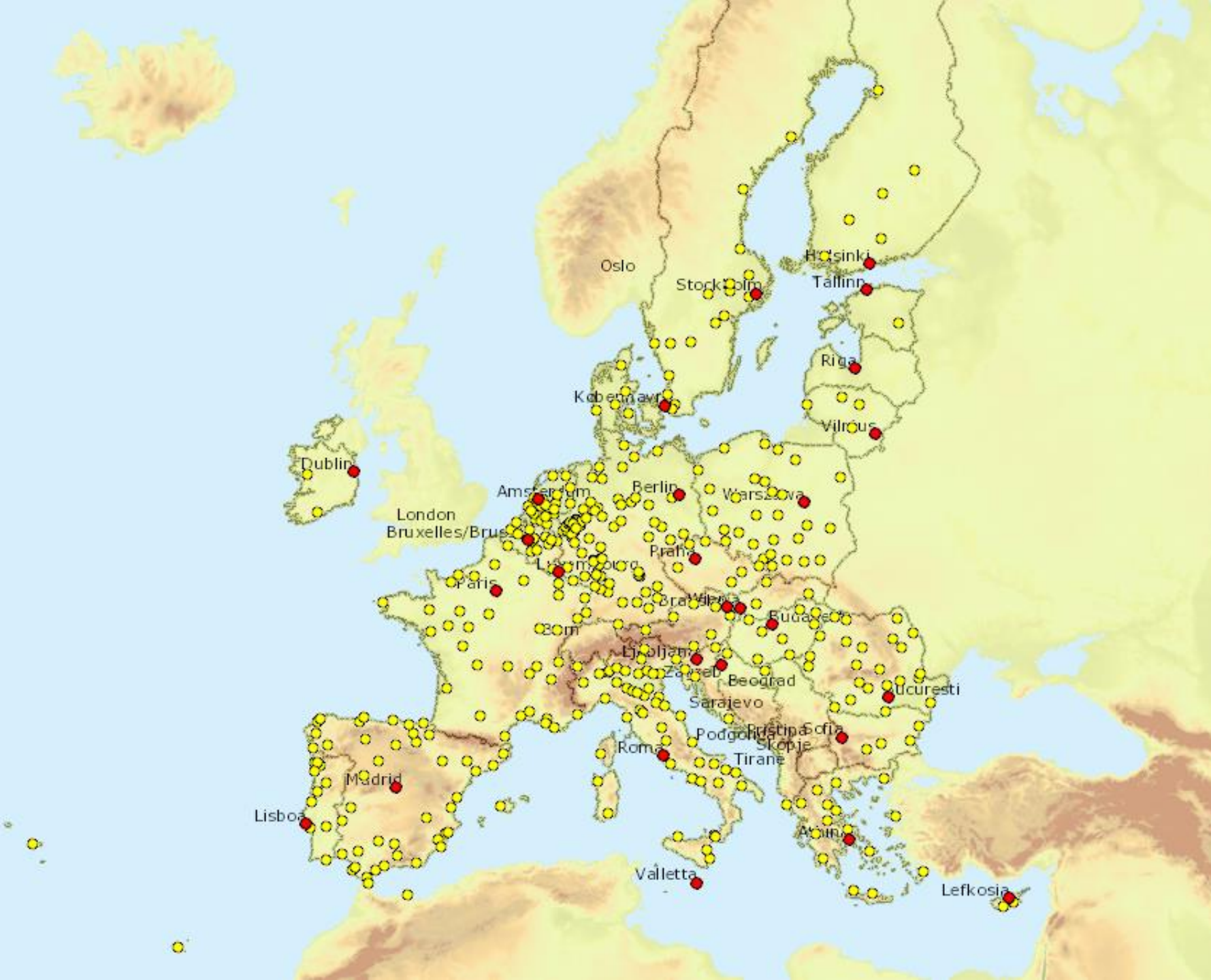
A very large number of stakeholders called firmly for **increased attention to the integration of urban nodes' action in TEN-T policy**

Insufficient complementarity between TEN-T policy and Sustainable Urban Mobility Plans, including their innovative dimension

Strengthening the role of urban nodes to enable a seamless flow of passengers between the core and local networks and strengthen more sustainable transport modes in urban areas

More importance to cities in TEN-T network development (first and last mile), to **connected and climate-neutral cities**, to ensure that **local and regional perspectives are included in TEN-T priorities**





82 urban nodes
to
430 urban nodes

STRENGTHENING URBAN NODES IN TEN-T

Components

Infrastructure part of the TEN-T, including bypasses

Access points to TEN-T, notably multimodal stations, multimodal terminals, ports or airports

First and last mile connections between and to these access points

Requirements

- **Availability of AF recharging and refueling**, including for public transport
- Adoption of **SUMP until 2025**
- Collection and submission of **urban mobility data per urban node** (SUMI indicators)
 - minimum GHG, congestion, deaths and serious injuries caused by road crashes, modal share for all modes, and access to mobility services as well as data on air and noise pollution in cities
- **Multimodal passenger hubs and multimodal freight terminals with at least one recharging station**

Priorities

- **multimodal passenger hubs**, including park and ride facilities, to improve first and last mile connections and to enhance the necessary capacities for long-distance connectivity in and between urban nodes (**increase of the modal share of public transport and of active modes**)
- with passengers enabled to access information, book, pay and retrieve their transport tickets through **multimodal digital mobility services**
- Mitigation of urban areas expose to negative effects of transit transport
- Efficient and low noise zero emission transport, incl. **greening urban fleets**

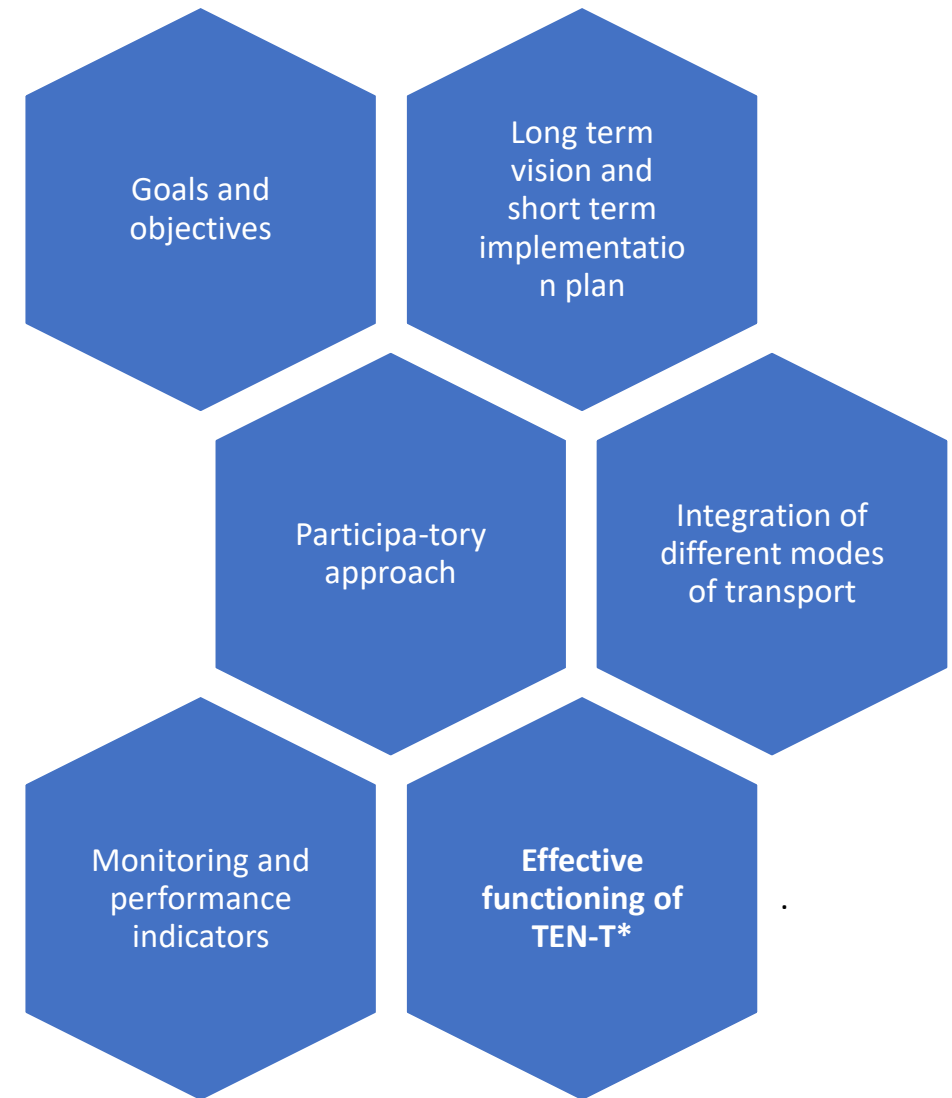
URBAN NODES: SUMP (REVISITED)

Impact of various urban measures on the traffic flows, both passenger and freight, on the trans-European transport network with the aim to ensure seamless transit, bypass, or interconnection through and around the urban nodes, including of zero-emission vehicles.

Include actions to alleviate congestion, improve road safety and remove bottlenecks affecting the traffic flows on the TEN-T

Stronger focus on multimodality (in particular with regard to a better integration of terminals and urban nodes into the network).

Availability of multimodal passenger hubs and multimodal freight terminals in urban nodes and the existence of Sustainable Urban Mobility Plans (SUMP);



AVOID

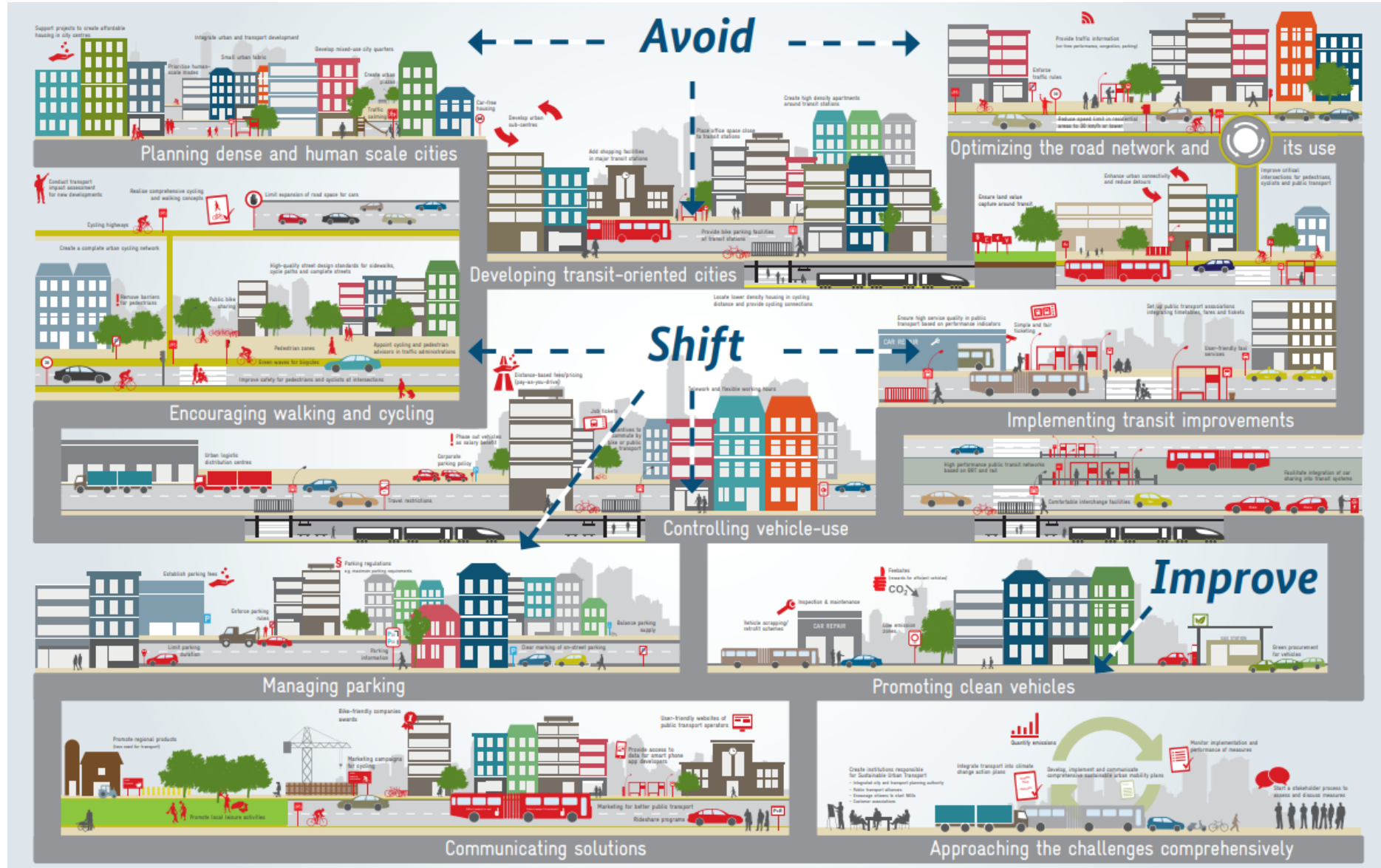
(OR AVOID THE NEED TO TRAVEL)

SHIFT

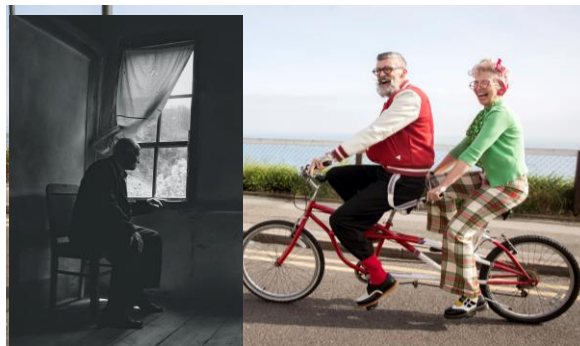
(OR MAINTAIN THE SHARE OF ENVIRONMENTAL TRAVEL MODES)

IMPROVE

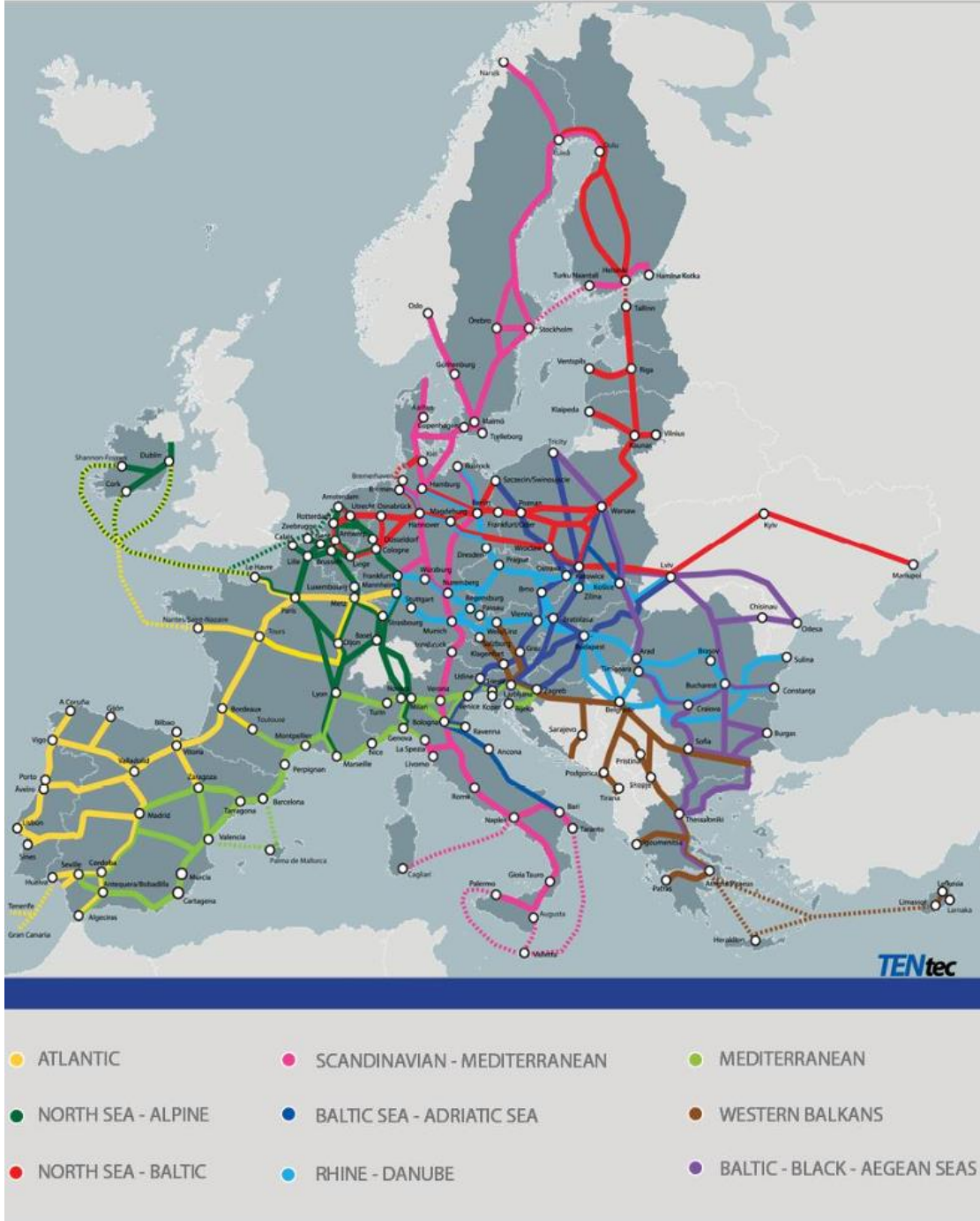
(THE ENERGY EFFICIENCY OF TRANSPORT MODES)



CHALLENGES & OPPORTUNITIES



- significant opportunities to the mobility ecosystem,
- fresh innovation to existing needs
- radical new approaches



The parts of the map pertaining to corridor alignment in third countries are indicative.

General Principles

- **New network structure:** core, *extended core* and comprehensive network together forming the TEN-T
- **New intermediary deadline of 2040 (extended core)**
- **European Transport Corridors (ETC):**
 - integration of CNC and RFC
 - composed of most strategic parts of core network *and* of the extended core network
- **Two horizontal priorities (ERTMS, European Maritime Space) & closer integration with work of ETC**
- A wider network of **430 urban nodes**

SEVERAL OPPORTUNITIES UNDER HORIZON EUROPE

CLUSTER 5

- HORIZON-CL5-2023-D6-01-01: User-centric development of vehicle technologies and solutions to optimise the on-board experience and ensure inclusiveness
- HORIZON-CL5-2023-D6-01-02: Generation of scenarios for development, training, virtual testing and validation of CCAM systems
- **HORIZON-CL5-2023-D6-01-04: Integrating European diversity in the design, development and implementation of CCAM solutions to support mobility equity**
- HORIZON-CL5-2023-D6-01-05: CCAM effects on jobs and education, plans for skills that match the CCAM development, and prerequisites for employment growth
- **HORIZON-CL5-2023-D6-01-06: Zero-emission e-commerce and freight delivery and return choices by retailers, consumers and local authorities**
- **HORIZON-CL5-2023-D6-01-07: Operational automation to support multimodal freight transport**
- **HORIZON-CL5-2023-D6-01-08: Future-proof GHG and environmental emissions factors for accounting emissions from transport and logistics operations**
- HORIZON-CL5-2023-D6-01-09: Climate resilient and safe maritime ports

SEVERAL OPPORTUNITIES UNDER HORIZON EUROPE

CLUSTER 3

- HORIZON-CL3-2024-INFRA-01-03: Advanced real-time data analysis used for infrastructure resilience
- **HORIZON-CL3-2023-DRS-01-06: Increased technology solutions, institutional coordination and decision-support systems for first responders of last-kilometer emergency service delivery**

CLUSTER 6

- HORIZON-CL5-2023-D6-01-1: Better infrastructure safety on urban and secondary rural roads throughout a combination of adaptable monitoring and maintenance solutions

**TEN-T corridors, urban nodes,
transport nodes as good test beds !**

If these opportunities are of your interest, send a message!



TIS



AIR TRANSPORT



MARITIME AND RIVER TRANSPORT



RAILWAY TRANSPORT



INNOVATION AND DEVELOPMENT



ENERGY EFFICIENCY AND
DECARBONIZATION



PUBLIC ROAD TRANSPORT



SUSTAINABLE MOBILITY



MOBILITY AS A SERVICE (MaaS)



LOGISTICS AND GOODS



TRAFFIC AND PARKING



TRANSPORT ECONOMICS



REGULATION AND POLICIES



URBAN PLANNING

Experienced in all transport modes along its entire life cycle (with frequent cases of cross-learning)

THANKS FOR YOUR ATTENTION

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