# Study on improving the efficiency of the transport system in urban nodes of the TEN-T core network

## Goal and framework of the study

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TEN-T CONNECTING EUROPE

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# Consortium

**Study on improving the efficiency of the transport system in urban nodes of the TEN-T core network**
MOVE/C1/SER/2015-532/SI2.717109
[9.11.2015 – 20.10.2016]

| | |
|---|---|
| **Rupprecht Consult - Forschung & Beratung GmbH**<br>Clever Str. 13 – 15<br>50668 Cologne, Germany | • project coordination and management;<br>• research;<br>• management of knowledge transfer;<br>• systematic take-up of project results;<br>• online learning. |
| **PwC - PricewaterhouseCoopers Advisory SpA**<br>Largo Angelo Fochetti, 28,<br>00154 Rome, Italy | • policy evaluations;<br>• impact assessments;<br>• economic modelling and stakeholder consultations. |
| **Panteia**<br>Research voor Beleid \| EIM \| NEA \| IOO \| Stratus \| IPM<br>Bredewater 26<br>2715 CA Zoetermeer, The Netherlands | • impact assessments, modelling, forecasting and evaluation;<br>• Cost Benefit Analyses, Multi Criteria Analysis in the area of urban transport and mobility;<br>• technical assistance. |

**On behalf of the European Commission, Directorate-General for Mobility and Transport (DG MOVE)**
**Directorate C – Innovative & sustainable mobility**

# Specific objectives of the study

- To identify cost-effective measures to improve the efficiency of the transport system in urban nodes of the TEN-T core network

- To draft recommendations on how to improve the efficiency of transport in urban nodes and how to replicate the most effective measures.

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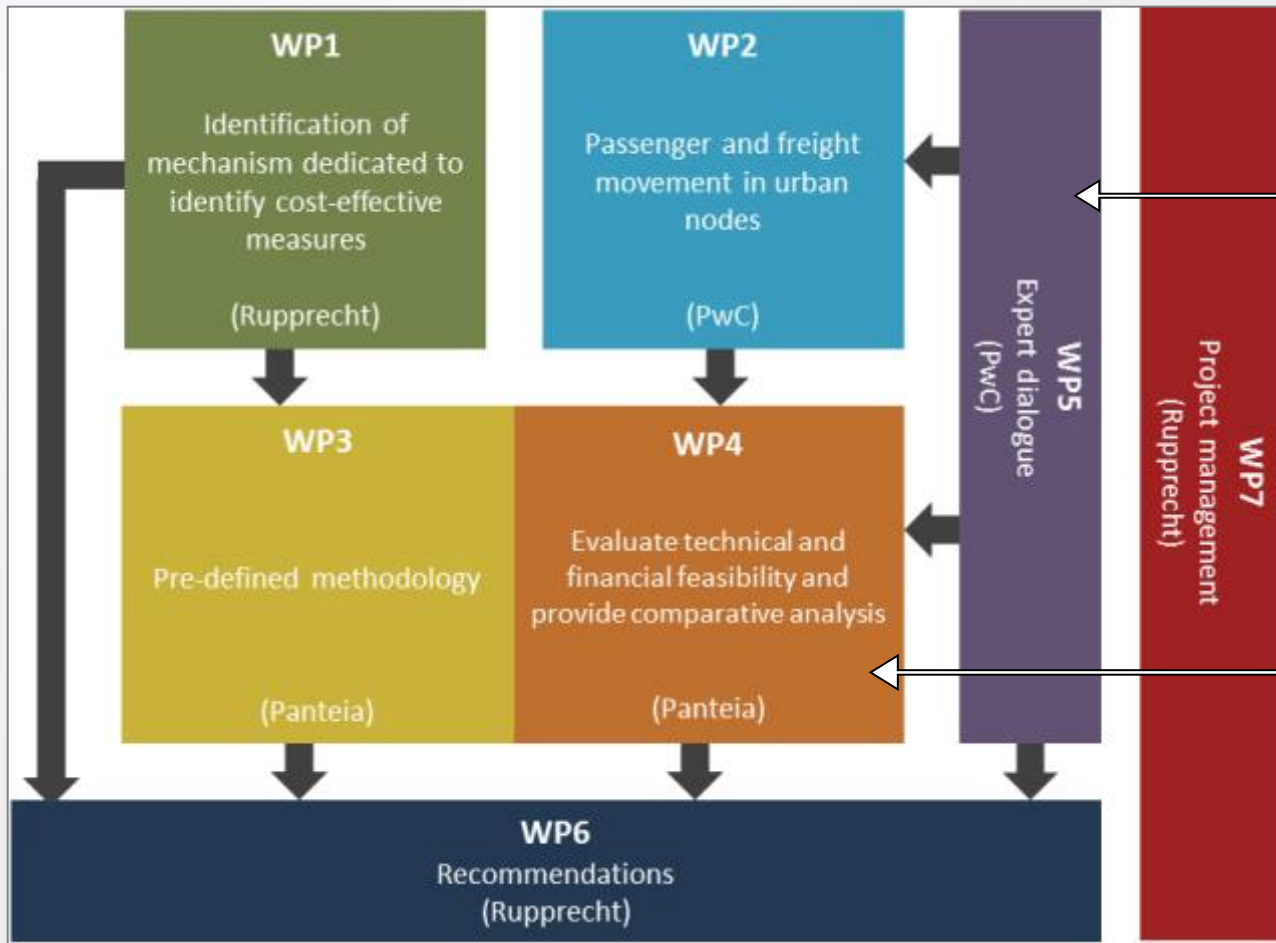
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# Key outputs

- **Methodology** to assess transport policies and measures in urban nodes

- **Recommendations** for urban nodes on how to further improve the efficiency of the transport system through measure selection and evaluation, and how to replicate the most effective (packages of) measures

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# Approach and methodology



WP1 — Identification of mechanism dedicated to identify cost-effective measures (Rupprecht)

WP2 — Passenger and freight movement in urban nodes (PwC)

WP3 — Pre-defined methodology (Panteia)

WP4 — Evaluate technical and financial feasibility and provide comparative analysis (Panteia)

WP5 — Expert dialogue (PwC)

WP7 — Project management (Rupprecht)

WP6 — Recommendations (Rupprecht)

**12** interviews with representatives from the four urban nodes, EU level and city networks

**4** pilot urban nodes:
- Genoa
- Helsinki
- Rotterdam
- Ljubljana

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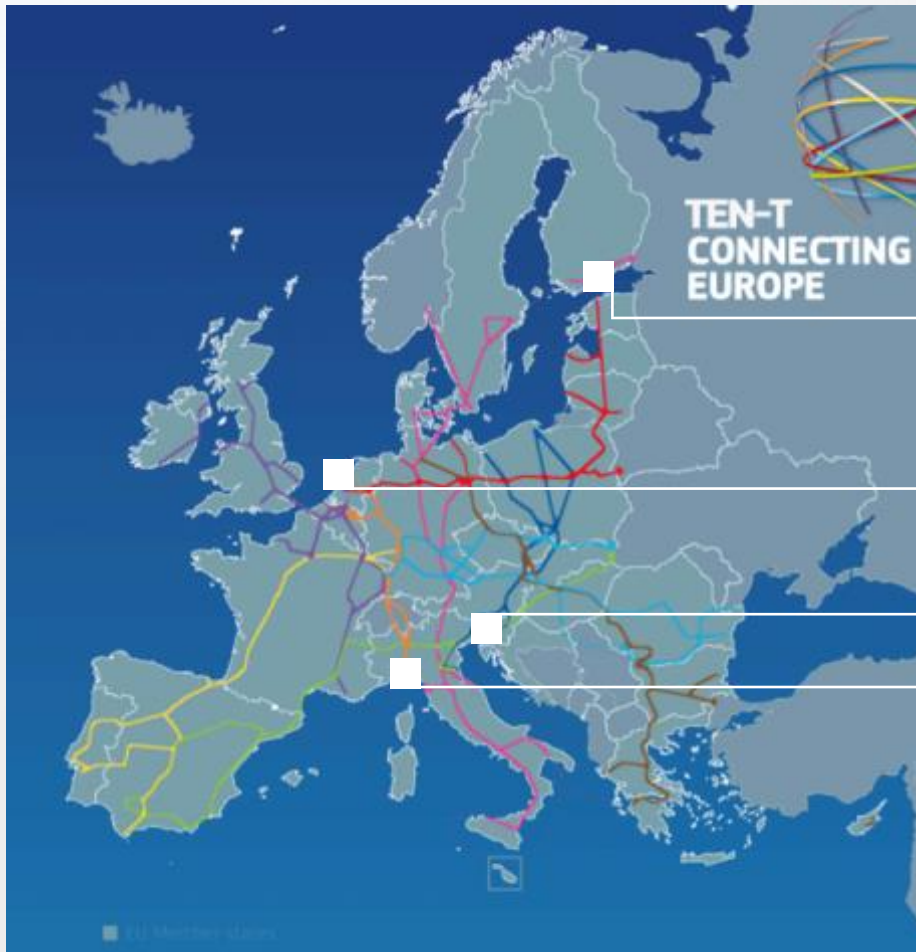
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# Mapping tested assessment methods

Overview of existing and proposed mechanisms dedicated to identifying cost-effective measures aimed at improving the efficiency of the transport system in urban nodes:

**Cost-Benefit Analysis**

**+ + +**

**Multi-Criteria Analysis**

**+ + +**

**Step-wise approach – combined CBA+MCA**

**+ + + +**

**Strategic Environmental Assessment**

**+ +**

**Environmental Impact Assessment**

**+ +**

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# Develop a customized methodology

**standardised approaches**

- CBA
- MCA

**integrated approach**

the stepwise appraisal methodology

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# Select four U.N.



| Urban node | Nr. of inhabitants | TEN-T core corridor(s) | Transport modes |
|---|---|---|---|
| Helsinki | 1,059,631 | • North Sea - Baltic<br>• Scandinavian-Mediterranean | • Airport<br>• Seaport<br>• Rail-road terminals |
| Rotterdam | 977,584 | • North Sea - Baltic<br>• Rhine – Alpine<br>• North Sea-Mediterranean | • Airport<br>• Seaport<br>• Inland Port<br>• Rail-road terminals |
| Ljubljana | 280,607 | • Baltic-Adriatic<br>• Mediterranean | • Airport<br>• Rail-road terminals |
| Genoa | 582,320 | • Rhine – Alpine | • Airport<br>• Seaport<br>• Rail-road terminals |

# Four test runs

Analysing transport movements in four UNs

Measure selection

Data collection (real and/or provisional) and processing

Pre-filling the tool (stakeholders and experts)

Test the efficiency of measures using the stepwise methodology (validation)

Post-workshop fine-tuning

Lessons learnt by stakeholders



**Genoa**
18 May 2016

**Helsinki**
7 June 2016

**Rotterdam**
1 July 2016

**Ljubljana**
8 September 2016

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# Expert dialogue

- Create a better **connectivity** between U.N. and TEN-T network

- The main **opportunities** in view of a more efficient local transport system (also in relation to the TEN-T network)

- The main **obstacles** in view of a more efficient local transport system (also in relation to the TEN-T network)

- Characteristics of **measures**

- UNs **in the long-term**

**12 interviews**

**Urban Nodes**

**City networks**

**European Commission**

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# Recommendations

The final output summarises the results of WP2 (data report on the transport situation in four UNs) and WP4 (evaluation of technical and financial feasibility by using the stepwise approach).

The recommendations to urban nodes answer the questions of:

- **How to further improve the transport efficiency in the pilot UNs?**
- **How to replicate the identified cost-efficient measures to other UNs?**

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# Next steps

An **e-learning course and webinar** will be developed as follow-up activities in order to disseminate the findings of the study and allow stakeholders from other UNs to understand the tools developed in our study (late November - early December 2016).

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# Thank you for your attention!

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