

## **FLUXNET**

Freight and Logistics Using eXtended Network Empowerment Tools

Research project funded under the CEDR Transnational Road Research Programme  
**CEDR Call 2015: Freight and Logistics in a Multimodal Context**

CEDR Call 2015: Freight and Logistics in a Multimodal Context is a Transnational Road Research Programme organised by CEDR. The funding partners for this programme are Germany, Netherlands, Norway and Sweden.

<b>Details</b>	
Acronym:	FLUXNET
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**Conférence Européenne  
des Directeurs des Routes  
Conference of European  
Directors of Roads**

### **Project Summary:**

National Road Authorities (NRAs) face fundamental challenges in the way their networks are being planned and operated. In order to guarantee network performance and efficient investment strategies NRAs will have to be empowered with an integrated planning approach for infrastructure and land-use planning which incorporates the trends in freight and logistics. The freight and logistics sector is interwoven with the NRAs networks and facing significant challenges on the supply side (supply chains, circular economy, etc.) and on the demand side (home delivery, ecommerce, mega region development). This covers the corridor scale, the daily urban system scale and the local scale.

The objective of FLUXNET is to provide insight into the tools for NRAs that help to optimise the multimodal use of the infrastructure networks by the freight and logistic sector. Special attention is being paid to the connection between land use and infrastructure planning. The project aims to provide an overview of potential “living labs” that offer the possibility to further explore the potential benefits of integrating multimodal transport networks, liveability and spatial planning.

The proposed methodology for this research puts practice-based research in the centre. The first phase aims to construct a preliminary toolbox. Initially, an analysis of trends in logistics and freight transport will be carried out. The results of this analysis will be confronted with network and spatial issues, resulting in different kind of typologies. This will be input for a global scan of 15 – 20 examples of best practice and an overview of the technical tools. From this dataset, an abstraction of the tools that can be derived from the best practices and the scan of technical tools will result in the draft preliminary toolbox. The second phase consists of a series of test beds in order to identify new potential living labs and at the same time to have a first expert judgement on the scientific quality and the implementation value of the toolbox. This phase will also be used for a first dissemination of the acquired knowledge. The third and last phase focuses on further dissemination of the results, the formulation of recommendations for the implementation by NRAs.

The toolbox will enable road administrations to improve multimodal use of their networks with respect to the freight and logistic sector on a national level. Through an integrated planning of the infrastructure network and land use planning, performance of the network (liveability, vitality, adaptiveness) will be stimulated. On an international level, the network of living labs will offer the NRA the possibility