

SPINDESIGN - SPace and INfrastructure DESIGN

CEDR Programme: Call 2017 Collaborative Planning of Infrastructure Networks and Spatial Development

Project Duration: 01.06.2018 – 31.05.2020

Partners: MUST Städtebau (Coordinator; Germany); TEMAH (Netherlands); Sweco (Sweden); AIT (Austria); Ecorys (Netherlands)

Project Introduction

National Road Authorities (NRA's) face fundamental challenges in the way their networks are being planned and operated. In order to deal with this rapidly changing context NRA's require a shift towards a collaborative planning approach: multi modal infrastructure is planned in collaboration with spatial developments with a broad scope towards the network performance. The Daily Urban System scale appears to be the most meaningful scale for optimizing the long-distance and last-mile networks of transportation in collaboration with regional spatial development.

The objective of this research project is to provide a toolbox for NRA's that help optimizing the multi-modal performance of an NRA's network in the context of recent trend in mobility and spatial development. The Toolbox will consist of a framework of collaborative typologies that will help optimize the interface function of the DUS between corridor transport and last mile mobility. The Toolbox will assist a NRA and its collaborative authorities (spatial and mobility) to initiate collaborative planning activities in strategic segments of the DUS. A vision document for CEDR's members will contain strategies on how to improve the connection between long-distance and last mile, and on how NRAs can combine and use the 'basic' solutions and measures from the Toolbox for tailor-made designing and planning of the interface at the DUS level.

Project Methodology

The proposed methodology for this research puts practice-based research in the centre. The first phase is an international quick scan of good practices where long-distance transport is connected with last-mile transport in Europe. Partly, this inventory can build upon other recent state of the art researches. The result is a catalogue. In the second phase, an abstraction of the tools and strategies being used in these good practices will be used to construct a preliminary toolbox. The toolbox will build upon and create synergy with existing innovative planning approaches. It will formulate a series of different kind of typologies: these consist of a specific type of network, spatial configuration and, (logistical/person) mobility issues (also see work packages). The third phase consists of a series of pilots in order to have a first expert judgment on the functioning and implementation value of the toolbox. Two "development pilots" will be carried out to test the concept toolbox into deep. As a follow up, four "application pilots" will serve to test the concept toolbox in different cultural and planning contexts. The lessons taken from the pilots will be the basis for the Vision Document.

Benefits for National Road Authorities

The toolbox will enable road administrations on a national level to improve multi modal use of their networks with respect to the freight and logistic sector. Through an integrated planning (infrastructure and spatial planning) of the interface between the long-distance transport and the last mile distance, performance of the network (liveability, vitality, adaptiveness) will be stimulated. On an international level, the series of pilots and the different dissemination activities will offer the national road authorities the possibility to keep learning from practises abroad.