

Multimodal network management framework for crowd management



Problem description

A Multimodal Network Management Framework (Dutch: Multimodaal Netwerkkader, or MNK) gives road authorities tactical tools for controlling traffic, in particular by:

- The networks on which traffic management can be deployed (based on the mobility objectives);
- The desired quality on different types of network parts (functions of network parts and target performance values)
- A prioritization sequence of functions for when scarcity occurs and choices have to be made.

See also the website multimodalenetwerkkaders.nl. These tactical principles are applied to situations where traffic management measures are deployed for controlling bottlenecks for cars, bikes and public transport. Up until now, the ideas of MNK are not applied to crowds management. Crowd management and the effective deployment of measures is a relatively new domain within the world of traffic management. The tactical frameworks that guide which measures can be deployed, derived from policy ambitions, are missing.

Assignment

This project is a joint project between Transport & Planning (civil engineering) and Arane Adviseurs (www.arane.nl). The following are possible research questions:

- What is the state of the art in crowd management?
- Are the ideas of MNK applicable to situations where measures for crowd management are deployed?
- Can we extend the MNK methodology so that it will be applicable to situations where crowd management is needed?

Information:

Transport & Planning department and Systems Engineering

Thesis supervisor: prof. dr. ir. Serge Hoogendoorn

Daily supervisor: prof. dr. ir. Serge Hoogendoorn and Koen Adams (Arane)

Contact: K.Adams@arane.nl en s.p.hoogendoorn@tudelft.nl