

# PROCUREMENT OF TRAFFIC FLOW ANALYSIS PILOTS FOR THE CITY OF VANTAA

## PRELIMINARY DESCRIPTION OF THE PROCUREMENT

### General

The City of Vantaa wants to pilot new technologies and automated methods for collecting and analysing traffic data.

The primary aim of this pilot is to analyse the current traffic flows and the congestion of traffic at different times in the Pakkala and Tammisto districts. The secondary aim is to analyse where the vehicles come from before they enter this area and how they move inside it. This analysis will reveal how much of the congested traffic is attributable to journeys between different locations within the districts and how much to traffic from the neighbouring districts of Tammisto. It will also reveal the shares of long-distance and pass-through traffic and traffic coming from other parts of the region.

The comprehensive information on the Pakkala and Tammisto districts collected during the pilot will also facilitate land use planning and the preparation of a traffic forecast model for the district.

With these pilots, the City of Vantaa wants to test the applicability of traffic flow analysis methods to the context of Vantaa. The long-term aim is to map out all the traffic flows in Vantaa using one of the methods developed on the basis of this pilot.

Another aim is to promote real-time traffic imaging, not only in Vantaa, but also in the Capital Region at large. With this procurement, the city wants to encourage operators in the market to develop sustainable earnings models that are not based solely on the purchases made by the client. Other potential customers include other cities, authorities, enterprises (e.g. in the trade and logistics sectors) and consumers.

The contracting authority is the City of Vantaa.



## Area covered by the procurement

The area included in the pilot covers the districts of Pakkala and Tammisto in Vantaa. The pilot area borders Tikkurilantie in the north, Kirkkotie in the east and Pakkalan puistotie, Osuustie and Toinen savu in the west. The traffic flows on Tuusulanväylä and Ring Road III do not have to be included in the analysis.



Pilot area

## Object of procurement

The procurement covers pilots on two analysis topics:

- A. Traffic flows and congestion in the Pakkala and Tammisto districts.
- B. The origin of vehicles entering Pakkala and Tammisto and their routes within the area.

The total procurement volume is 2–4 pilots. The duration of each pilot is 2–4 months. Each pilot may cover one of both of the analysis topics.

After the pilots, the procurement authority will assess the results and the applicability of the methods to the context of Vantaa. The City of Vantaa will use the lessons learned and results of the pilots as the basis for later procurements.

Importantly, the client must have sufficient rights to use the results in later procurements after the pilots. All copyright to the software and methods shall remain with the supplier.

However, this procurement does not bind the client to any further procurements.

## Procurement procedure

This procurement follows the open procedure.

## Supplier's remuneration for the pilot

Remuneration for the pilot and the determination of the remuneration will be specified after the market dialogue and discussions.

However, the starting point is that the supplier bears part of the piloting costs.

## Comparison of the tenders

The minimum requirements on the tenders and the comparison criteria will be specified after the market dialogue and discussions.

## Requirements and limitations

At the moment, the client does not have equipment or methods that could be used for producing comprehensive traffic flow calculations. The client has access to a few traffic counters and induction loop traffic lights, but the pilots cannot be built solely on the data produced by these.

The pilots do not have to cover the entire pilot area. It is enough to analyse one or more key points in the area. However, the piloted method must be scalable, firstly, within the pilot area and later, at a larger scale in other regions in Vantaa.

Because the methods and solutions included in the procurement are publicly available, the tenderer or the tenderer's subcontractor must present a reference of having used similar methods before.

Because the client has limited personnel resources, the project manager identified in the tender must have a track record of successfully executed projects.

The pilots must produce metadata on the following, as comprehensively as possible:

- traffic flows: street and lane-specific
- driving directions
- speeds
- queue lengths, congestion, smoothness of traffic flow
- forecasts for daily and weekly cycles that are based on history data
- predictability of traffic flows, for example, for the following 15 minutes
- time stamp
- positioning data from the traffic count point, start point or destination
- means of transport as an additional feature: passenger car, public transport, pedestrian, bicycle
- analysis topic B: start point (e.g. which municipality) and the point of entry

It must be possible to share the metadata to other parties that develop services and utilise the data through an open interface. The supplier shall be responsible for data protection and the functionality of the data collection methods.

Reporting on the pilots:

- technical and functional description of the pilot
- on-site functionality
- potential for improving the features and parameters in the future
- scalability of the pilot
- crowdsourcing potential
- future business opportunities.