Rijkswaterstaat
Ministry of Infrastructure and the Environment

Rijkswaterstaat
Central Information Services

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Date
30 April 2015

Enclosure(s)

Market Consultation Intelligent Traffic Systems

Introduction

Rijkswaterstaat (RWS), the Dutch Highway Authority, is responsible for the operation and maintenance of the Dutch motorway and trunk road networks.

Road traffic is monitored and influenced using roadside technology that is governed by control rooms in traffic management centres (TMC). RWS has the requirement to update their roadside traffic management systems to a new generation of roadside traffic management systems.

The market consultation described in this document is part of the i-infra project. We invite both companies already active in traffic management, as well as IT companies not yet active in the field of traffic management to participate in this market consultation.

We expect that IT solutions from outside the domain of traffic management can make a significant contribution to future roadside technology. The insights of round 1 will be used to shape round 2 of the market consultation. Round 1 will be open to all interested parties.

All ideas submitted by Industry are treated as Commercial in Confidence. No part of these will be made public. However, relevant insights are subject to publication and may be used by RWS to shape future strategies.

Objective of market consultation

The objective of the market consultation is to enable the market place to show how the future strategy and objectives of RWS can be realised from a wide range of leading suppliers. This market consultation document is published in order to widen our reach amongst potential suppliers.

Minimal requirements

In answering the questionnaire RWS would like you to consider the following minimal requirements.
Easy to do business with:
Interfacing with the Intelligent Traffic Systems should be open to all other technology and third parties (internal and external) who we may provide or receive information from.
Adaptable:
The Intelligent Traffic Systems must be adaptable to accommodate new technology or techniques.

No technology or vendor lock in:
The Intelligent Traffic Systems must not be dependent on any proprietary technology hardware, platform, or software. The system needs to be portable and transferable to other future technology as it develops.

Process
This market consultation has a two step approach described in the next paragraphs.

Round 1
Round 1 consists of a questionnaire, to be submitted by 1 May 2015. This questionnaire is included in this document. This questionnaire is designed to give RWS an overview of relevant available capabilities in the market place.

The completed questionnaires submitted by industry will be analyzed by RWS. Insights from this analysis will be used to publicize relevant insights made by RWS concerning roadside traffic management systems in one or more business magazines, to shape the exact procedure for round 2 of this market consultation and the future procurement strategy. We would like to stress that only the insights from this analysis will be made public and sent to all participants.

We expect to enter into one-on-one conversations with any parties interested in discussing their ideas regarding Intelligent Traffic Systems with us. The completed questionnaires for round 1 will be an excellent starting point for this.

Round 2
Round 2 has the objective to obtain clearer, more detailed, insights into the solutions that industry can offer in order to meet the requirements of RWS. Round 2 will not be open to all interested parties. A selection will be made on the basis of round 1. The exact procedure for round 2 will be determined and published in June 2015. Round 2 will be concluded in October 2015.

Similar to round 1 the ideas submitted by industry will be analysed by RWS. Insights from this analysis will be used to publicize relevant insights made by RWS concerning roadside traffic management systems in one or more business magazines and the future procurement strategy. We would like to stress that only the insights from this analysis will be made public and sent to all participants.

Timetable

Publication of Market consultation round 1	1 May 2015
Deadline for return of questionnaire	29 May 2015
Insights of round 1 to be communicated widely	October 2015
Market consultation round 2	29 June – October 2015
Insights of round 2 to be communicated widely	December 2015

This time-table may be amended.

Legal aspects
Any company may participate in this market consultation. Participating in this market consultation is free of any engagement and will never lead to any obligation between RWS and your company.

(Non-)participation by a company will neither exclude this company from future tenders nor will it have any influence on its opportunities.

All ideas submitted by Industry will be treated as Commercial in Confidence. No part of these will be made public.

However, relevant insights are subject to publication and may be used by RWS to shape future strategies.

Further information
The following documents are an integral part of the market consultation:
- Questionnaire market consultation round 1

In answering the questionnaire RWS wants you to maximize your response to 15 pages A4 pure text. Additional pictures or diagrams are allowed.

Your response should be returned before 1 May 2015 to the following email address: inkoopcentrum-iv@rws.nl

Your response should be designated as:
"Result <company name> Market consultation Traffic Management Systems"
and be addressed to:
Léon Brinkman
Senior Procurement Officer
Rijkswaterstaat

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Questionnaire market consultation round 1

Major theme:
Currently, there are many technological developments which may affect Traffic Management: autonomous driving, Wifi P, floating car data, 4G, ITS, etc.

Rijkswaterstaat, the Dutch Highway Authority, is very much interested in the ideas of commercial companies concerning:

- which of these developments seem to be most promising in the long term;
- the effect of new technologies on the road authorities' infrastructure, and;
- which technological challenges have been solved and which have not.

Use Cases

1. Which ITS-services are expected to be introduced on European highways during the next 10 years? In which order?
   1.1. Which demands will these use cases make on wireless communication? (capacity, security, reliability, etc.)
   1.2. Where should these use cases be applied? (all roads, certain roads, parts of roads)
   1.3. Public or private services?

Distance Wifi P access points

2. Do the companies believe that infrastructure is necessary along highways for communication purposes?
3. What are the experiences of companies with Wifi P ? Which maximum distance between access points is desired? What are the experiences with Wifi P's reliability and capacity?

Telecommunication 4G

4. What is 4G's performance in terms of capacity, coverage, reliability, security, latency? How does it perform under pressure (hundreds of communicating vehicles)?
5. Is LTE (Advanced) an interesting alternative for 4G or WIFI-P?
6. In which cases can RDS-TMC and/or TPEG be of use in addition to 4G?

Markets

7. Which new companies are relevant for V2I (vehicle-to-infra)-services, or will be in the future (like Google)? Do these new companies already influence V2I-communication? Insurance companies? Automobile industry?

Other Road Authorities

8. What initiatives have Road Authorities in other countries undertaken?
9. Which Road Authorities are relatively influential in the development of V2I-services? How so?

Security

10. WIFI-P as such is unsecured. Is there currently a mechanism (technology and organisation) available and operational that offers sufficient security for use cases? If not, what are the obstacles and what is necessary to solve these? When will this be available?

Technology

11. Would companies be interested in using Rijkswaterstaat's fibre optic communications network?
12. Which communication protocols would companies prefer along roads for communication between back office, road side units and detection loops, matrix signs, rotation panels, etc.?

Position RWS

13. Which tasks will there remain for Public Road Authorities if cars and commercial service providers are to take over certain tasks (such as traffic and route information)?

L. Brinkman
Senior Procurement Officer