

Request for Information

Switches & Track monitoring

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Content

1	Introduction	3
1.1	ProRail B.V.	3
1.2	Scope	3
2	Procedure Rfl.....	5
2.1	Introduction.....	5
2.2	Procedure	5
2.3	Planning	5
2.4	Open and honest	5
3	Questionnaire	6
3.1	Introduction.....	6
3.2	Experience with switches & track monitoring.....	6
3.3	Other	7

1 Introduction

This Request for Information (Rfi) is published in preparation of a possible tender for switches & track monitoring activities in The Netherlands. Collecting data regarding the condition of the switches & track is a key activity in determining the quality and safety of the rail infrastructure. For these activities ProRail is investigating the possibilities to enter into contract(s). In order to match ProRail's requirements and market capabilities with regard to switches & track monitoring, ProRail would very much appreciate your contribution by completing this questionnaire. ProRail intends with this Rfi among other things:

- To gain insight into the preconditions within which this possible procurement project can be successfully carried out;
- To gain insight into the number of interested and qualified contractors.

1.1 ProRail B.V.

ProRail B.V. is responsible for the railway network in the Netherlands: construction, maintenance, management and safety. Every day, 24/7 employees make sure that 1,200,000 travellers and 100,000 tons of goods arrive at their destination, with 6,550 trains over more than 7,000 kilometer of track and more than 6,000 switches. The railway network is the beating heart of the transport within The Netherlands.

ProRail is working on the accessibility of the Netherlands by ensuring an optimal rail network. We distribute capacity on the track, arrange all train traffic, build and manage stations and lay new track. ProRail also maintains existing infrastructure such as rail, switches, signals and level crossings.

1.2 Scope

ProRail wants to know the condition of its infrastructure. In this case it concerns determining the condition of tracks, switches and the immediate environment. It is tested against current ProRail regulations on the basis of visual material and measurement data obtained with measuring trains. The basic principle is that both the visual material and the measurement data are collected with the same measuring train. The intended result is timely delivery of visual material and measurement data validated to contract requirements. The starting point for the measurements is the guideline RLN00195 V002 "Requirements for measuring trains and measurement data for location geometry and switch inspection". (enclosed, only available in Dutch).

Video inspection is an essential process for ensuring safe driveability. The maintenance contractors expect good images of tracks and switches of the centrally controlled area twice a year in order to be able to assess its safe driveability. ProRail uses the images to test the condition of tracks and switches and to develop image recognition for identifying objects and finding defects. For substantive information, see the current document regarding Safe driveability: RLN00187 - V005 "Periodic visual inspection Safe driveability". (enclosed, only available in Dutch).

The inspection of switches is an independent and uniform measurement of the geometric quality of switches in the centrally controlled area. With the switch inspection, the condition of the switches is determined for the benefit of ProRail and maintenance contractors. Since in addition to all switches, the measuring train also runs all tracks, in addition to the geometric switch quality, the geometric quality of the tracks must also be delivered.

Contractual deviations can be established with both inspection of switches and video inspection. It is important to be able to analyse the (safety-critical) parameters from the maintenance specifications of switches and track as well as possible.

The project consists of collecting data scoped:

- to switches as well as plain track,
- to the levels of:
 - network,
 - objects (switches, track-segments)
 - components (within switches and track)
- to visual (video) and geometrical-data
- [to geometry in the cross plane and along the length profile.](#)
- [to determine by means of algorithms whether certain measured values exceed standards.](#)

The project could also expand to collect other type of data.

Additionally, the actual planning of the measurement activities (driving schedules for the train) is also part of the current activities under the contract. This requires close cooperation with our traffic management department and long term planning (up to 12 months ahead). Final products to be delivered are in measurable units (eg mm, V, °C). The actual measurement results must be entered in to the ProRail databases as well as geographically plotted on the ProRail rail maps (USIS: Unique Track Identification System). Large amounts of data will be transferred from contractor to ProRail via the cloud.

2 Procedure Rfl

2.1 Introduction

By means of this Rfl, ProRail intends to obtain answers to a number of questions from the contractors in the market, so that on this basis, it can position the possible tender(s) better in the market. In addition, it tries to reach as many contractors as possible in order to interest them and encourage them to contribute ideas.

2.2 Procedure

This Rfl is published on Tendernd, which means all suppliers can participate. This is a written procedure. You are requested to fill in the enclosed questionnaire and submit it before the date mentioned in paragraph 3.3. You can state your answers in Dutch or English. If answers are unclear or raise questions, ProRail reserves the right to ask for clarification. If you are interested, please send your answers to the questionnaire (Chapter 3) to arno.odijk@prorail.nl, no later than May 3rd 2021.

An anonymous report is made of the total Rfl. Excluded from mentioning in the final report are explicitly stated confidential questions and answers, or for example solutions, by the participating market parties, in the opinion of ProRail. The Rfl will be completed by drawing up a final report via Tendernd. The final report will be part of the tender documents for the European tender, if ProRail decides to publish a European tender.

2.3 Planning

Date	Activity
14 th April 2021	Publication on Tendernd
20 th April 2021 12:00 CET	Deadline and time for asking questions about the Rfl procedure
23 rd April 2021	Deadline for answering questions via the Information Memorandum
3 rd May 2021 12:00 CET	Deadline and time for submitting your completed Questionnaire by email (arno.odijk@prorail.nl)
June 2021	Reporting

2.4 Open and honest

Participation in the Rfl is completely voluntary and will not lead to any privileges in a tender. Likewise, not participating in the market consultation will not lead to exclusion from a possible tender. By participating in this Rfl, you agree that the information you provide may be used by ProRail in (the preparation of) the tender. Commercial (numerical) information provided by you will be treated confidentially by ProRail. ProRail values a transparent process. It is not the intention to favor participating market parties in the Rfl or to place non-participating parties at a disadvantage. From this perspective, all relevant information resulting from the market consultation will be made available to all potential tenderers upon publication of the tender or added to the tender dossier. Any costs for participating in this market consultation will not be reimbursed.

3 Questionnaire

Contact information	
Company name	
Name contact person	
Phone contact person	
e-mail contact person	
Address	
Postal code	
City	

3.1 Introduction

1	Can you give a concise description of your organization and the services it offers?

3.2 Experience with switches & track monitoring

2a	What experience your company has with track monitoring regarding the inspection of switches? Please describe what you can measure and the measuring method(s) used.

2b	What experience your company has with track monitoring regarding the videoinspection? Please describe what you can measure and the measuring method(s) used.

2c	Is your system validated by a track-manager such as ProRail or an independent third party? If your system is not validated for the Dutch regulations, how much time you think it will take to get it validated? Please elaborate.

2d	Do you have experience with the handling of large amounts of data relating to track monitoring and/or video inspection? Please elaborate.

2e	Can you indicate what the minimal availability rate is in percentages to perform measurements? Which countermeasures do you have to limit unavailability due to maintenance, failure etc?

3.3 Other

3a	What future developments do you see in the market of track monitoring?

3b	Are there any other matters that you want to give to ProRail with the aim of putting the best possible tender on the market?