

## **ProRail Market Consultation**

### **Incident Registration and Analysis Platform for Project Veiligheid Actueel en Transparant (VAT)**

Market Consultation in preparation for the tender.

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Reference

Version 1.0  
Date 16 August 2016  
Filename Market consultation document

Status Final

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## 1 Introduction

This market consultation has been created in preparation for a tender procedure or 'Project Veiligheid Actueel en Transparant (VAT)', a project taking place in the Netherlands.

ProRail is investigating the possibility of issuing this tender late 2016/early 2017.

This consultation will not only help us to tender the project in a way that best fits the market and our objectives, but also provides an opportunity for you to present your company and specific solution to us in an informal way.

### 1.1 Organisation

ProRail is responsible for the railway infrastructure in the Netherlands, including construction, maintenance, management and safety. Every day (24/7), our 4,000+ employees work hard to make sure that one million train journeys are completed and 115,000 tons of goods arrive at their destination, across 7,000 kilometers of train tracks.

The accessibility of the Netherlands depends on us providing an optimum railway infrastructure. We manage the space on the tracks, regulate all train traffic, build and manage stations and lay new tracks. We also maintain existing equipment such as track, turnouts, signals and railway crossings.

To achieve this, we work with both passenger and freight carriers, always keeping the customers' interests in mind. Together with municipal and provincial government we study how best to meet the demand for rail transport and station facilities. This translates into the four strategic objectives of ProRail: Safe Rail, Reliable Rail, Punctual Rail and Sustainable Rail.

Our organization chart is provided below (in Dutch):

Organogram



## 2 Overview of current situation, and goal of the project

The department of Veiligheid (Safety) supports ProRail with operational safety issues, incident investigation, enforcement, advice, analysis and reporting.

Correct registration of events (incidents and findings of safety inspections) is important to manage safety targets in relation to availability and proactively adjust if certain risks occur too often. A focus on safety is a prerequisite for running trains, and we are required to share operational safety information widely, both inside and outside our organization.

### 2.1 History and current situation

In 2003, ProRail decided to implement an Incident Registration and Analysis Platform, Synergi. Synergi was originally developed for the oil and gas industry.

Synergi is currently being used by multiple European railway companies and each uses the same version. Within ProRail the Synergi system is known as PROMISE (Prorail, Management, Information, Safety and Environment).

The management of Synergi is divided between:

- The department of Veiligheid (Safety) is the application owner. They're tasked with:
  - incident coordination in the web application
  - admin application for: administration, incident registration coordination, "bulk importing" of daily incident reports, training purposes
  - reporting
- ICT: is tasked with functional management, application management and related administrative tasks.

At the moment there are 410 users, each with a certain level of access according to their role. The users of the department of Veiligheid (Safety) have write access and fill PROMISE with data or documents, register data about incidents that were not created through bulk import and create reports and analysis. Users that only have read access, use PROMISE to analyse incidents and inspections on patterns and causes. By use of a BI platform, the data in PROMISE is used to automatically create a Safety dashboard, daily. This dashboard allows users to access and view the case as a whole via the use of links.

PROMISE users include:

- Veiligheid (Safety): regional safety consultants, safety staff, researchers, employees
- Environment policy officers, human resources and infrastructure operation
- Traffic control: railway safety staff and policy officers.
- Projects/construction management: team leader safety and environment and an environment employee, the construction manager and construction administrator
- FaZ (service point facility management)
- Tender management, cost management and procurement: the external quality advisor

As a result of developments within the department of Veiligheid (Safety), ProRail as a whole, general legislature and technological capabilities, the opportunity for improvement is bigger than what could be achieved through better application management alone.

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The current architecture does not offer capability to:

- present current and accurate information: interfaces show a delay of two working days and do not provide synchronization with source systems e.g. SAP and Monitoring
- provide mobile and offline support for outdoor inspections and/or forensics
- show the relationship between event, (potential) effect and measures; the Incident Registration and Analysis Platform does not provide a clear link between the barrier model (the ProRail systems and ALARP) and safety incidents
- register events efficiently:
  - supporting multiple officers, working from different disciplines; construction administration, inspectors, researchers, etc are required to enter the same data for each event, even if some of the data does not apply;
  - specifically the information specialist, or subject matter experts of the department of Veiligheid (Safety), are currently retyping information from the database/business intelligence (BI) manually into fixed formats for reports and dashboards.
- business analysis on trends (low data quality and manual bulk processing);

Barrier Based Risk Management is all about your primary business processes; to know what your critical controls are (the 'barriers') and what the status of these barriers is, and then to understand how to manage the barriers.

The barrier model 'ALARP' (As Low As Reasonably Practicable) is used as the starting point, when considering 'barriers'.

ProRail has already made important improvements, such as implementing a Control – Plan-Do-Check-Act (PDCA) cycle for safety. In addition, the need for up-to-date progress information on larger incidents is increasing, both inside and outside ProRail.

## 2.2 Project goal

The main objective of this project is to improve the entire safety chain. The ultimate goal of the Department of Safety is to learn from past events, both here and abroad, to prevent future safety incidents occurring.

The entire process of incident registration and analysis, by gathering information to reporting, needs to be aligned with barrier management. This will enable the department of Veiligheid (Safety) to complete the PDCA cycle, in such a way that:

- repetitions of serious incidents are prevented through closed loop analysis (risk, ALARP, events) and available data.
- correct and up to date (real-time) information is supplied from a single source, which can be consulted and updated simultaneously with new data by the users involved, including those at the location of incident/inspection.
- there is one source that provides the business with the latest (safety) information, showing when this information was added and by whom, and when new facts are expected to become available. This is especially to be developed to deal with serious incidents and their investigation.
- the way that incidents are handled and measured remains traceable
- collaboration in the safety chain, inside and outside of ProRail, is facilitated
- the process is optimized by removing manual actions where possible

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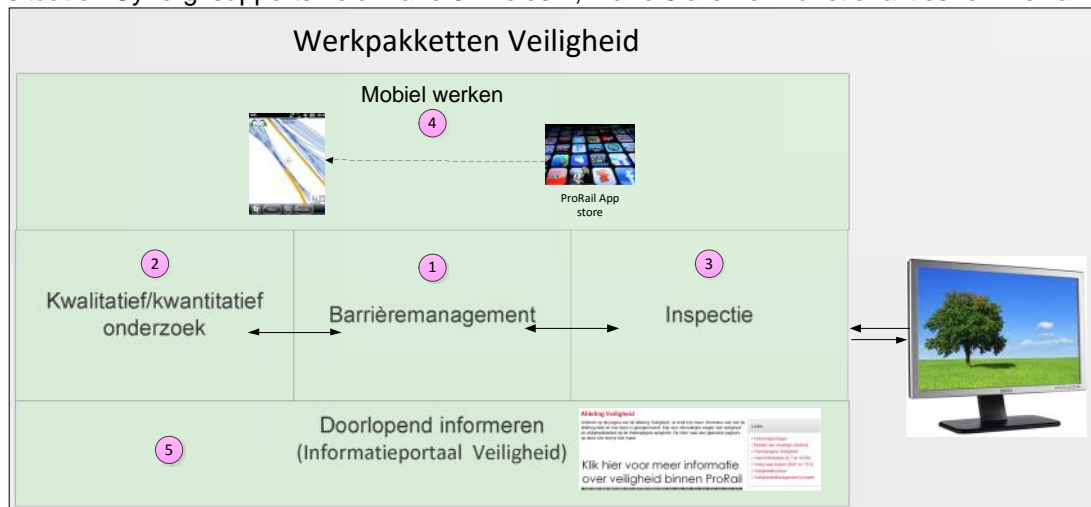
The result will be a single Incident Registration and Analysis Platform with compliance on the following points:

1. A data model with a closed circle (risk, ALARP, events) and a choice of architecture in which the link between barrier management and incident management is guaranteed. The possibilities of the risk register should be put to better use when capturing information about incidents. Additional information - e.g. on the basis of the brief incident reports – data must be captured in a structured way.
2. Optimization of registration data: a data model for safety events and inspections and a choice of architecture aligned with barrier management integrated in the Incident Registration and Analysis Platform. The opportunity to follow-up on and monitor measures in accordance with the PDCA cycle. The option to vary data sets, depending on the type of event.
3. Optimization of data collection: a specification for source systems for both quantitative and qualitative data streams. Implemented in interfaces or mobile applications depending on the data stream. The people that import data into the source systems also understand their data is important for the safety process.
4. Optimization of reports and dashboards: a reporting model following the barrier management. Special attention should be paid to allow for the automation of standard reports and prevention of duplicates in databases.
5. Presenting data: the ability to provide stakeholders with continuous insight into ongoing investigations, integrated with the registration or reporting of incidents.
6. Insight into data: easy availability of reliable information about infra-objects and traffic control from the original source (e.g. SAP) and easy access to documents such as rules, guidelines and TOON images.

*A risk register shows the connection between risks and barriers. This also shows which department is responsible for risk control and the relevant procedure or system. The risk register is part of the barrier model.*

*TOON is an application, that was developed by ProRail to understand where and when a train is riding and provide analysis on punctuality, delays and causes of delays.*

The below figure illustrates the desired results schematically (in Dutch). In the current situation Synergi supports field 2 and 3. Fields 1, 4 and 5 are new functionalities for ProRail:



## 2.3 Boundaries

To ensure that the proposed product or solution can continue to be used within the ProRail environment in future, the following criteria will need to be addressed:

- It is ProRail policy that software systems have to be Windows-based
- Communication between systems uses open standards
- On a database level, complete manual editing i.e. read, write and deletion, needs to be possible. For audit purposes all actions need to be logged at all times.
- Any import of data from other systems also has to be logged as per the above
- A connection with SAP needs to be possible.

## 2.4 Goal of consultation

By conducting this market consultation ProRail is investigating not only the maturity of the market, but also which suppliers may be able to deliver and implement a complete safety management software solution. Our aim is to:

- Assess the feasibility and vision for your chosen solution direction as articulated in this document.
- obtain insight into your market offering, e.g.
  - software products (standard package or individual components).
  - service to grow to a phased solution.
  - opportunities that your approach offers to realize project VAT.

## 2.5 Procedure

Should you decide to participate then we would like to receive your information not later than 3 October 2016 8:30h.

Based upon the returned questionnaires, ProRail may decide to invite participants for a meeting to further elaborate on the information they have provided. If meetings are organized, they will take place in 41 of this year.

For the response you are free to use any format you like, however, we would like to ask you to clearly refer to the questions and topics covered in this document.

The completed questionnaire and information can be sent over the 'TED Messages' or 'Tendered Berichten' function.

If further information is required to answer the questions in this document, please contact ProRail using the address above.

## 2.6 Detailed market consultation procedure

The procedure of this market consultation is as follows:

1. The market consultation will start by publishing this document on TenderNed/TED with the questions listed under Chapter 3 of this document.
2. Interested parties are provided with the opportunity to ask questions about the market consultation document for the purpose of transparent and unambiguous communication. Questions may be sent over the 'TED Messages' or 'Tendered Berichten' function before the date mentioned in section 2.9 "Planning". Questions and answers will then be collated and published on TenderNed/TED within 5 working days.

Please use Appendix - Format questionnaire (UAV) to submit your question.

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3. Any interested party who feels that they can contribute to the market consultation is requested to send a response over the 'TED Messages' or 'Tendered Berichten' function before the mentioned in section 2.9 "Planning".
4. ProRail expects all market players who participate in this market consultation to provide answers to at least the essential questions posed, which are contained in Paragraph 3. The answers to these essential questions should be correct and complete, yet concise and comprising no more than four pages of A4 in total. Additional information may be included in appendices.
5. ProRail may invite interested parties to clarify their answers in person. ProRail will contact these parties and schedule a half-day clarification meeting to take place in week 41.
6. The answers to the questions raised by the market consultation and the minutes of any clarification meetings will be captured in a fully anonymized market consultation report. The project team will draw up the report with great care, to avoid enabling the content to be attributable to any specific interested party.
7. The market consultation report will then be published on <http://www.tendered.nl/>.
8. In addition, those parties who have participated in the market consultation will also receive the market consultation report via email.

### 2.7 Rules

Rules governing the market consultation:

- It is emphasized that participation in this market consultation will not lead to any privileges or advantages in the tender nor will not participating mean that a participant will be excluded from the tender. Participating in this market consultation is entirely voluntary.
- Participants cannot derive any rights from the supplied information during the market consultation.
- ProRail is no way bound to the results of the consultation.
- Responses that are received after the final delivery date 3 October 2016 8:30h will not be used in the in the consultation. This has no consequence for the tender process.

### 2.8 Results

The results of the consultation will lead to a general Program of Demands (PvE) which will be used during the planned tender.

### 2.9 Planning

The planning for this market consultation is as follows:

	Activity	Date
1	Start market consultation	16-08-2016
2	Closing date for submission of questions	12-09-2016
3	Publication of response to questions	16-09-2016
4	Closing date for your responses	03-10-2016 08:30h
5	Timeframe for clarification meetings	10 t/m 14-10-2016
6	Publication of results	15-10-2016



## 2.10 Registration and submission response

Interested parties will be registered when downloading this document.

Please respond to the questionnaire in the same order in which they are listed.

Unsolicited approaches following this tender are not appreciated. If you have any questions about the market consultation more generally, you can use the message portal within TenderNed/TED.

## 2.11 Terms and conditions of the market consultation

By participating in the market consultation any interested party agrees to the following terms and conditions.

- It is expressly stated that this market consultation is not part of the European tendering procedure.
- Participation in the market consultation is completely voluntary and non-binding and in no way impacts on possible participation in the tender which may follow.
- Interested parties may not claim reimbursement of any costs incurred in the context of the market consultation.
- This document is written in the context of the market consultation ahead of the planned tender and is in no way an invitation to subscribe to that tender.
- The planning as outlined in this document remains at our sole discretion and we reserve the right:
  - To carry out the market consultation and the subsequent tender differently to the way described in this document;
  - To discontinue the market consultation and/or the tender procedure in whole or in part as desired.
- The information that is provided during the market consultation may differ from the information that is provided at a later stage for the benefit of the proposed tender procedure.
- Within this market consultation, the fundamental principles of procurement, namely objectivity, transparency and non-discrimination will be respected.

## 2.12 Confidentiality

By participating in this market consultation the participant agrees that ProRail has the right to use the information it receives in preparing the tender and the tender documents, with the exception of commercial information, such as details on revenues, which will be treated confidentially.

### 3 Questionnaire

Below are the questions that we would appreciate your response to. Please kindly answer each question and where applicable, provide your motivation.

<b>A) General</b>	
<b>A1</b>	<p>Please provide us with a short introduction of your organization. Please include the information requested below:</p> <ul style="list-style-type: none"> <li>(1) Company name:</li> <li>(2) Company address:</li> <li>(3) Annual total revenue over 2014 and 2015 (€):</li> <li>(4) Annual total revenue over 2014 and 2015 with respect to safety management software (€):</li> <li>(5) Number of employees:</li> <li>(6) Number of employees that are assigned to platforms, such as an Incident Registration and Analysis Platform</li> <li>(7) Contact information: (name, position, telephone number, email address)</li> </ul> <p>If your company belongs to a holding company, please fill in the following details:</p> <ul style="list-style-type: none"> <li>(1) Name of holding:</li> <li>(2) Yearly revenue over 2015 of holding (€):</li> </ul>
<b>A2</b>	<p>What products and services does your organization deliver in the field of safety management software?</p> <ul style="list-style-type: none"> <li>a) Description of products</li> <li>b) Description of services</li> </ul>

<b>B) Feasibility and vision for your chosen solution</b>	
<b>B1</b>	Please describe your vision on safety management software (max. four A4)
<b>B2</b>	Do you see areas for improvement which ProRail has not thought of?

<b>C) Insight into your market offering</b>	
<b>C1</b>	Please describe your proposed solution (standard package or individual).
<b>C2</b>	Which reference projects (client, objective, scope, planning) can you list in conjunction with the scope referred to in point C.1?
<b>C3</b>	Please confirm whether or not your solution supports barrier management, inspections & research, data & trend analysis, mobility and/or providing information to stakeholders?
<b>C4</b>	Please describe if the required functionality is developed by your organization or interfacing is needed to third party software.
<b>C5</b>	Please describe your business model: will the solution be delivered on-site, SAAS, PAAS or another kind of service offering?
<b>C6</b>	Please provide the technical specifications of your solution.
<b>C7</b>	Please describe the ratio between standard and custom made functionality of your solution. What parts are configurable, and what parts will need to be custom built for ProRail.
<b>C8</b>	Please describe the pricing model for your solution (flat fee, licenses, subscriptions, etc.). What units for pricing do you use? What information do you need from us in order to provide pricing for the solution?

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<b>D) Commercial</b>	
<b>D1</b>	Based on the scope of the document, can you give an indication of the implementation time for your Incident Registration and Analysis Platform?
<b>D2</b>	Based on the scope of the document, can you give a <u>rough</u> estimation of the costs (development, delivery, service and changes, etc.) of your Incident Registration and Analysis Platform?
<b>D3</b>	What does your company see as a natural split in service activities for the Incident Registration and Analysis Platform? (i.e. to what level is the supplier responsible and to what level our contractor?)
<b>D4</b>	What kind of warranty does your company provide (warranty period, time to repair, helpdesk)?

<b>E) Questions about interest in this assignment</b>	
<b>E1</b>	What would be reasons for you not to participate in the tender for this project? Please expand on your reasons.
<b>E2</b>	How can ProRail ensure a 'level-playing field' for the proposed tender?
<b>E3</b>	Do you have any other ideas, suggestions or comments, or do you see any other risks or challenges for ProRail with regards to the Incident Registration and Analysis Platform?

<b>F) Questions about selection and award criteria</b>	
<b>F1</b>	In a non-public procurement process with selection criteria, in your opinion, would be best to use?
<b>F2</b>	In a tender based on the most economically advantageous tender, with award criteria, in your opinion, would be best to use?
<b>F3</b>	What's your vision on how ProRail can test whether a party has the right technical knowledge and experience of the desired product?