

28 AUGUST 2026

**REQUEST FOR QUOTATIONS FOR SUPPLY,
CONFIGURATION, INTERGRATION AND IMPLEMENTATION
OF AN ADVANCED SAFETY DATA ANALYTICS SOLUTION.**

1. Purpose

- 1.1. The purpose of this Request for Quotation (RFQ) is to appoint a suitably qualified service provider to supply, configure, integrate, implement and provide knowledge transfer for an existing Commercial Off-the-Shelf (COTS), Software-as-a-Service (SaaS) or perpetual-licence Advanced Safety Data Analytics Solution that integrates with the Railway Safety Regulator's National Integrated Information Management System (NIIMS).

2. Considerations/background

- 2.1. The Railway Safety Regulator has implemented the following National Intergrated Information Management System (NIIMS) modules:

- Occurrence and Investigation Management Module;
- Asset Management Module; and
- New Works and Technology Management Module

- 2.2. The following NIIMS modules are currently under implementation as part of Phase 2 and are scheduled to go live on 30 December 2026:

- Permit Management Module;
- Inspection Management Module; and
- Penalty Management Module.

- 2.3. As the volume of regulatory information continues to grow, the RSR requires an advanced analytics capability that consolidates data from NIIMS and other approved information sources to support proactive, intelligence-led regulation.

- 2.4. The Railway Safety Regulator currently utilises Microsoft Power BI for operational reporting and dashboard visualisation. While Power BI provides descriptive reporting and business intelligence capabilities, it does not provide the advanced analytical functionality required to support predictive modelling, machine learning, safety risk forecasting, anomaly detection and intelligent decision support required by the organisation.
- 2.5. The RSR intends to procure an existing Commercial Off-the-Shelf (COTS), Software-as-a-Service (SaaS) or perpetual licence Advanced Safety Data Analytics Solution that requires configuration and integration rather than extensive custom software development.

3. Scope of work / Specification

Objectives

- 3.1. The objectives of this procurement are to:
- Establish the safety analytics component of the Enterprise Data and Reporting System (EDRS).
 - Integrate safety data from NIIMS and other approved data sources.
 - Improve enterprise reporting and business intelligence.
 - Enhance predictive analytics and safety risk modelling.
 - Support intelligence-led and risk-based railway regulation.
 - Improve executive and operational decision-making.
 - Provide a scalable platform capable of supporting future enhancements.

3.2. Scope of work

The successful bidder shall supply, configure, integrate and implement an existing Advanced Safety Data Analytics Solution:

3.2.1 Solution Architecture

The service provider shall:

- Assess the existing NIIMS environment.
- Configure the solution architecture.
- Design the data integration architecture.
- Configure security and user access.
- Produce architecture documentation.

3.2.2 Data Intergration

The solution shall intergrate with:

- NIIMS Occurrence and Investigation Module
- NIIMS Asset Management Module
- NIIMS New Works and Technology Module
- The solution shall be scalable to integrate with future NIIMS modules as they become operational
- Microsoft SQL Server (NB: RSR to provide required licenses)
- Microsoft Power BI (NB: RSR to provide required licenses)
- Microsoft SharePoint (NB: RSR to provide required licenses)
- Microsoft 365 (NB: RSR to provide required licenses)
- Microsoft Excel (NB: RSR to provide required licenses)
- Approved external data sources where applicable.

The solution shall support API integration, database connectivity and scheduled data synchronization.

3.2.3 **Dashboards and Reporting**

The solution shall further support:

- Interactive dashboards
- Scheduled reporting
- Self-service reporting
- Drill-through analysis
- Export to PDF, Excel and Word.

3.2.4 **Advanced Analytics**

The solution shall provide:

- Descriptive Analytics
- Diagnostic Analytics
- Predictive Analytics
- Trend Analysis
- Correlation Analysis
- Root Cause Analysis
- Statistical Analysis
- Risk Analysis
- Forecasting
- Anomaly Detection

3.2.5 **Predictive Analytics and Machine Learning**

The solution shall support predictive modelling to enable:

- Prediction of railway safety occurrence trends.
- Operator risk profiling.
- Risk scoring.
- Identification of emerging safety risks.
- Inspection prioritisation.
- Safety trend forecasting.

- Pattern recognition.
- Decision support.

The proposed solution should utilise appropriate machine learning techniques to support these capabilities.

3.2.6 **Security**

The solution shall support:

- Role-based access control.
- Audit logging.
- Secure authentication.
- Encryption of data in transit and at rest.

3.2.7 **Training and Knowledge Transfer**

The successful bidder shall provide:

- System administrator training.
- End-user training.
- Technical documentation.
- User manuals.
- Knowledge transfer sessions.

3.3. **Deliverables**

The successful bidder shall provide:

- Installed and configured Advanced Safety Data Analytics Solution.
- Solution Architecture Document.
- Data Integration Configuration.
- Configured Dashboards.
- Predictive Analytics Models.

- Machine Learning Models.
- User Acceptance Testing Report.
- Technical Documentation.
- User Manuals.
- Training.
- Go-Live Support.
- Configured Data Integration Interfaces.
- Training Completion Report.

3.4. **Pricing Schedule**

Prospective service providers are required to use the following table for quotation purposes:

Services	Total Price (Incl. VAT)
Advanced Safety Data Analytics Solution (As per section 3.3)	
Enhancement, Support and Maintenance (50 Hours)	
Total	

4. Administrative / Compliance Requirements

- 4.1. Registration on National Treasury CSD report
- 4.2. Comprehensive quotation (prices must be VAT Inclusive)
- 4.3. Tax Pin & Tax clearance certificate
- 4.4. Fully Completed and signed Standard Bidding Documents (SBD) forms documents
- 4.5. A valid BBEE certificate or sworn affidavit (on sworn affidavit indicate the day, month and year of the financial year period ie, 31 March 2022)
- 4.6. Valid company registration documentation that are issued by Companies & Intellectual Property Commission (CIPC)
- 4.7. A Copy of the identity document of the company owner(s)
- 4.8. Valid Medical Certificate

- 4.9. Valid South African Social Security Agency (SASSA) registration
- 4.10. Valid National Council for Persons with Physical Disability in South Africa registration (NCPDPSA)

Failure to submit valid documents listed above (No - 4.5, 4.6, 4.7, 4.8, 4.9, 4.10) for proof of claim specific goals as stipulated in Section 6 below will lead to the service provider not being awarded points for specific goal.

5. Functionality Evaluation Criteria

- 5.1. The suitable service provider must demonstrate capacity and capability to execute this project by complying with the functionality criteria on the table below:
 - Only bidders that score a minimum of 70 points out of the total 100 points during the Functionality Evaluation shall proceed to the Solution Demonstration Evaluation Phase.
 - NB: A bidder shall submit the Curriculum Vitae (CV), qualifications and relevant professional certification(s) of each proposed resource for only one role or discipline. A specific resource shall not be proposed for multiple roles. Where the same resource is submitted for more than one role, the resource shall only be evaluated and awarded points for one role or discipline.
 - The bidder shall demonstrate the necessary capacity, capability and relevant experience to successfully supply, configure, integrate, implement and support an Advanced Safety Data Analytics Solution by complying with the functionality evaluation criteria set out below.

NO	CRITERIA	POINTS
1	BIDDER'S REFERENCE LETTERS: The bidder must submit reference letters from previous or current clients demonstrating successful implementation of Commercial Off-the-Shelf (COTS) or Software-as-a-Service (SaaS) Advanced Data Analytics, Business Intelligence, Data Platform, Artificial Intelligence, Machine Learning or similar enterprise analytics solutions within the past ten (10) years. The reference letter(s) shall, at a minimum, state the following: • Name of the client. • Contact person's name, designation, contact number or e-mail address. • Brief description of the solution supplied and implemented. • Contract commencement and completion dates. NB: Each reference letter must contain all of the above minimum information. A reference letter that does not provide any one of the required details will not be considered for purposes of evaluating the bidder's experience. • Five (5) or more valid reference letters: 40 Points • Four (4) valid reference letters: 30 Points • Three (3) valid reference letters: 20 Points • Two (2) valid reference letters: 10 Points • Less than Two (2) valid reference letters: 0 Points	40
2	BIDDER'S DATA ANALYTICS AND BUSINESS INTELLIGENCE TEAM CAPACITY: The bidder shall submit CVs and certified qualifications for each proposed Data Analytics Specialist, Business Intelligence Specialist or Data Engineer.	30

	Each proposed resource must have: • A minimum of five (5) years' experience in Business Intelligence, Data Analytics or Data Engineering. • A minimum NQF Level 7 qualification in Information Technology, Computer Science, Data Science or Statistics. • A Microsoft, Power BI, Microsoft Fabric, Data Analytics, Business Intelligence or Data Engineering certification. NB: No points shall be awarded where both the CV and the relevant certified qualifications/certifications have not been submitted. The qualifications/certifications must be certified copies issued within the last six (6) months from the date of the RFQ. • Three (3) or more suitably qualified specialists: 30 Points • Two (2) suitably qualified specialists: 20 Points • One (1) suitably qualified specialist: 15 Points • No suitably qualified specialist: 0 Points	
3	BIDDER'S DATA SCIENCE AND MACHINE LEARNING CAPABILITY The bidder shall submit CVs and certified qualifications for each proposed Data Scientist or Machine Learning Specialist. Each proposed resource must have: • A minimum of five (5) years' experience in Data Science, Machine Learning or Predictive Analytics. • A minimum NQF Level 7 qualification in Computer Science, Data Science, Artificial Intelligence, Machine Learning, Information Technology, Informatics, Statistics or Mathematics • Relevant Artificial Intelligence, Machine Learning or Data Science certification(s). No points shall be awarded where both the CV and qualifications/certifications are not submitted. The qualifications/certifications must be certified copies issued within the last six (6) months from the date of the RFQ. • Three (3) or more suitably qualified specialists: 30 Points • Two (2) suitably qualified specialists: 20 Points	30

	• One (1) suitably qualified specialist: 15 Points • No suitably qualified specialist: 0 Points	
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Service Providers must attain a minimum threshold of 70 points or more to be considered for evaluation on price and specific goals.

Failure to attain the set minimum threshold will result in a disqualification.

5.2 **SOLUTION DEMONSTRATION EVALUATION**

- 5.2.1 Only bidders that score a minimum of 70 points out of 100 during the Functionality Evaluation (Section 5) shall be invited to participate in the Solution Demonstration Evaluation.
- 5.2.2 Bidders shall be required to participate in a virtual or physical solution demonstration within seven (7) calendar days of receiving written notification from the RSR. Failure to attend the scheduled demonstration without prior written arrangement with the RSR may result in disqualification.
- 5.2.3 The bidder shall demonstrate an existing Commercial Off-the-Shelf (COTS), Software-as-a-Service (SaaS) or perpetual licence Advanced Safety Data Analytics Solution. The bidder may demonstrate a solution implemented for another client or a configured demonstration environment, provided that it adequately demonstrates the required functionality.
- 5.2.4 The solution shall be evaluated against the twenty-five (25) demonstration requirements specified in Section 5.2.5.1, covering the required architecture, integration, reporting, advanced analytics, predictive analytics, machine learning, risk, security and user management capabilities.
- 5.2.5 Only bidders that score a minimum of 70 points out of 100 during the Solution Demonstration Evaluation shall proceed to the Price and Preference Point System Evaluation.

No	EVALUATION CRITERIA	Weight	Scoring Criteria
5.2.5.1	SOLUTION DEMONSTRATION: The bidder shall demonstrate an existing Commercial Off-the-Shelf (COTS), Software-as-a-Service (SaaS) or perpetual licence Advanced Safety Data Analytics Solution that complies with the functional and technical requirements specified in this RFQ: The demonstration shall focus on the following twenty-five (25) requirements: 1. Solution architecture and key solution components. 2. Integration/data connectivity with Microsoft SQL Server. 3. API integration capability. 4. Scheduled data synchronisation. 5. Interactive dashboards. 6. Scheduled reporting. 7. Self-service reporting. 8. Drill-through analysis. 9. Export of reports to PDF, Excel and Word. 10. Descriptive and diagnostic analytics. 11. Trend and correlation analysis. 12. Root cause and statistical analysis. 13. Risk analysis.	100	• 12 requirements or less (48% or less) = 0 points • 13–14/25 (52%–56%) = 50 points • 15–17/25 (60%–68%) = 60 points • 18–19/25 (72%–76%) = 70 points • 20–22/25 (80%–88%) = 80 points • 23–24/25 (92%–96%) = 90 points • 25/25 (100%) = 100 points

	14. Forecasting capabilities. 15. Anomaly detection. 16. Prediction of railway safety occurrence trends. 17. Operator risk profiling and risk scoring. 18. Identification of emerging safety risks. 19. Inspection prioritisation based on risk or predictive analytics. 20. Pattern recognition using relevant railway safety or representative data. 21. Predictive analytics-based decision support. 22. Role-based access control and user management. 23. Audit logging and retrieval of user/system activities. 24. Secure authentication and applicable security controls. 25. Administration and configuration of the solution.		
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6. Evaluation 80/20 Preference Point System

- 6.1. The price quotations will be evaluated in accordance with the pre-scripts of the Preferential Procurement Policy Framework Act (PPPFA) and its regulations, in particular Preference Procurement Regulation 2022 which

stipulate **80/20 preference point system** for acquisition of goods or services with Rand value equal to or below R50 million (inclusive of all applicable tax).

- 6.2. A maximum of 80 points for price and 20 points for the specific goal specified on the request for quotation may be awarded to a Service Provider.
- 6.3. Points for the specific goal will be awarded as specified on the table below:

NO	SPECIFIC GOALS	PREFERENCE POINT (OUT OF 20)	PROOF OF CLAIM
1	An Exempt Micro Enterprises (EME) or Qualifying Small Enterprise (QSE) which is <i>at least 51% owned by black people</i>	10	• Copy of the identity document of the owner(s) • A valid SANAS accredited BBEE certificate or a valid BBEEE sworn affidavit (whichever is applicable) • Central Supplier Database (CSD) report • Valid company registration documentation that are issued by Companies & Intellectual Property Commission (CIPC)
2	An Exempt Micro Enterprises (EME) or Qualifying Small	5	• Copy of the identity document of the owner(s)

	Enterprise (QSE) which is at least 51% owned by black women		• A valid SANAS accredited BBEE certificate or a valid BBEE sworn affidavit (whichever is applicable) • Central Supplier Database (CSD) report • Valid company registration documentation that are issued by Companies & Intellectual Property Commission (CIPC)
3	An Exempt Micro Enterprises (EME) or Qualifying Small Enterprise (QSE) which is at least 51% owned by youth	3	• Copy of the identity document of the owner(s) • A valid SANAS accredited BBEE certificate or a valid BBEE sworn affidavit (whichever is applicable) • Central Supplier Database (CSD) report • Valid company registration documentation that are issued by Companies & Intellectual Property Commission (CIPC)
4	An Exempt Micro Enterprises (EME) or Qualifying Small Enterprise (QSE) which is at least 51% owned	2	• Copy of the identity document of the owner(s) • A valid SANAS accredited BBEE certificate or a valid BBEE sworn affidavit (whichever is applicable)

	by person(s) with disabilities	• Central Supplier Database (CSD) report • Valid company registration documentation that are issued by Companies & Intellectual Property Commission (CIPC) • Valid Medical Certificate • Valid South African Social Security Agency (SASSA) registration • Valid National Council for Persons with Physical Disability in South Africa registration (NCPDSA)
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6.4. For Points to be awarded for the specific goals the proof for the claim for such goal must be submitted.

7. Technical Enquiries

7.1. SCM

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7.2. Project Manager

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8. Closing Date and Time for responses to this request for quotation

- 8.1. The request will be **closed on the 10 September 2026 at 15h00 pm**. Responses may be emailed to doris.letsholo@rsr.org.za