



Megha Engineering &
Infrastructures Limited

Digital Transformation in Railway Tunnel Project An ISETIA Case Study

Project: Rishikesh-Karnaprayag New BG Rail Line Project – Pkg 8

Contractor: MEIL, PMC: Lombardi Engineering Ltd -Italferr S.P.A Jv

Location: Gauchar Uttarakhand, India



ISETIA



**Megha Engineering &
Infrastructures Limited**



ABOUT MEGHA ENGINEERING & INFRASTRUCTURES LIMITED (MEIL)

Megha Engineering & Infrastructures Limited (MEIL) is a major infrastructure company headquartered in Hyderabad, India. Established in 1989 as a small fabrication unit, MEIL has grown significantly over the years to become a key player in the Indian infrastructure sector.

MEIL's commitment to quality, innovation, and timely project execution has earned it a strong reputation in the industry.

The company has a significant presence across India and is actively exploring opportunities in international markets.



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ABOUT RISHIKESH – KARNAPRAYAG RAILWAY LINE PROJECT

Rishikesh – Karnaprayag Railway Line project is a 125.20 km single-track railway line under construction in Uttarakhand with 12 stations by Rail Vikas Nigam Limited(RVNL) .

The project is estimated to cost Rs. 16,200 crore and will reduce the travel time between Rishikesh and Karnaprayag from 7 hours to just over 2 hours.

The project will feature a ballastless track system.



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SIGNIFICANCE OF THE PROJECT

The project is of national strategic importance and is being tracked on the Central Government's PRAGATI (Pro Active Governance and Timely Implementation) portal. When ready, it will help improve connectivity to the Char Dham shrines of Yamunotri, Gangotri, Badrinath and Kedarnath in the Garhwal region of the Himalayas. Along its route, 105.47 km (84.24%) of it will consist of 35 bridges and 17 tunnels including a 15.1 km tunnel, one of the longest in the country, between Devprayag and Lachmoli.

LENGTH OF PACKAGE 8 SCOPE

27 km of tunnel works, including 13.5 km main tunnel and 13.5 km escape tunnel.



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SOLUTION

ISETIA's PMIS addressed these needs by providing a centralized platform with real-time data analytics, GIS integration, and collaborative features. This empowers stakeholders with data-driven insights, optimizes workflows, and improves overall project efficiency.

RESULTS AND METRICS

- 60000+ documents including Daily Progress Reports (DPR) are managed on **ISETIA's** CDE platform ensuring access to project team members.
- 1000+ correspondences making it a seamless collaboration for project stakeholders.
- Automated the process of recording and analysing tunnelling productivity rates based on rock class type, reducing manual effort and improving accuracy.
- Successfully captured over 6000 individual RESS cards within 2.5 years, providing valuable geological reports.
- ISETIA provides a single source of truth for real-time project insights, and interactive dash board reports boosting productivity and confidence.
- GIS Based progress updating in the hilly terrain makes it easier to highlight ongoing vs completed works.
- Non Conformity reports (NCR) generated through **ISETIA** help maintain quality and safety control.



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THE POWER OF ISETIA MODULES

- **Dashboard & Analytics Module:** Offers a comprehensive overview of project progress, facilitating informed decision-making at all levels by providing intelligent data reports. **ISETIA** Dashboards are used weekly and monthly review meetings by project stakeholders.
- **Board Module:** Enables efficient task management with clear visualization of workflows and daily/monthly progress.
- **Correspondence & Document Module:** Streamlines document management, contractual correspondences ensuring easy access to critical information and fostering seamless collaboration.

BENEFITS REALIZED

- **Streamlining Project Data:** Improved document management, real-time data access, and enhanced MIS reporting (DPR, MPR, Plan vs Actual, Finance S Curve) streamline workflows and facilitate data-driven decision-making.
- **Reduced Risks:** Proactive monitoring with **ISETIA** dashboard reports and real-time information enable early identification and mitigation of potential issues.
- **Project Success:** Enhanced efficiency contribute to successful project management and collaboration.



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CONCLUSION

ISETIA's PMIS has proven instrumental in the project management of the Rishikesh-Karnaprayag Pkg 8 tunnel project. By providing a robust platform for efficient management, adaptable planning, **ISETIA** has emerged as a critical partner in overcoming complex challenges and achieving project objectives.



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