

The owner and operator of Indonesia's largest copper and gold mines, PT Freeport Indonesia (PTFI), is increasing operational efficiency, enhancing occupational safety and making more informed decisions with the help of an enterprise-wide spatial data platform.

The new data management system uses Geographic Information System (GIS) technology to integrate exploration, operational, geo-hazard and environmental data, and other relevant information from across the business. The data is then visualised and analysed on an interactive mapping platform that provides decision-makers with a comprehensive view of their operations.

The enterprise-wide Web GIS also features real-time data collection, analysis and reporting capabilities that provide PTFI management with an accurate, up-to-theminute understanding of their operations, enabling more precise decision-making.

Empowered by a spatially-enabled view of their operations, PTFI has greater oversight over their entire business. Management know what is happening on the ground in near real-time, ensuring operations and resources are most effectively managed.

By consolidating data from all divisions across the business onto a single platform, information is now effortlessly shared between departments - mproving collaboration, communication and corporate governance.

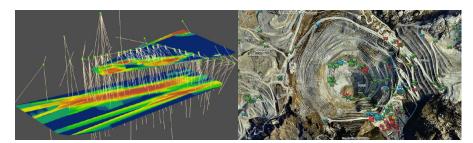
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The adoption of GIS technology enterprise-wide has helped in the following specific areas:

- Hazard monitoring and ensuring a safe working environment The ability to monitor the movement of equipment (e.g. trucks, shovels, loaders) and geotechnical indicators simultaneously enables potential hazards to be identified and prevented. Real-time reporting enables managers to take immediate action to improve the safety of staff, avoid accidents and reduce downtime from incidents.
- Furthermore, reducing the number of incidents and near misses, not only creates a more socially responsible operation, it frees otherwise occupied resources to undertake more mineral exploration and production.
- Corporate governance With real-time monitoring of field activities management are better equipped to manage overall mining operations. Decision-making is informed by accurate and authoritative data, enabling more effective allocation of resources leading to both time and cost savings.
- More efficient operations The new solution Web GIS enhances cost accountability and enables more efficient management of mining operations. The system enables monitoring of all mining activities relating to operations risk management, mine productivity, asset management and environmental management.
- Compliance to environmental policy The ability to balance effective mining operations and sustainable environmental management is essential. Visually representing spatial models and reports enables PTFI to clearly document environmental compliance for government stakeholders, and facilitates environmental auditing.

Real-time data improves decision-making, enabling potential environmental incidents to be managed and mitigated before they become an issue - ensuring better accountability.

As PTFI's adoption of Web GIS expands, more users will start accessing the system from mobile devices. In the future PTFI expect to use mobile devices to input production data in real time, from the field, further increasing real-time data accuracy and operational efficiency.



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