



HELIX

ENHANCING SAFETY,
PRODUCTIVITY, AND
AUTOMATION FOR
UNDERGROUND
MINING OPERATIONS

A Komatsu technology brand




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OVERVIEW

MST Global's HELIX enterprise software platform is an innovative solution for modern mining operations. HELIX offers 3D visualisation, real-time data capture, integrated automation, and extensive customisation options via a geospatial digital twin of your mine's surface and underground operations. Enhance your mines safety, increase productivity, and reduce costs with HELIX's modules; empowering informed decision-making and optimising your operations. Join the forefront of mining digitalisation technology and revolutionise your operations.



HELIX PLATFORM OVERVIEW

MODULAR SOLUTIONS FOR MINING OPERATIONS

The HELIX platform is a comprehensive and versatile solution designed to enhance mining operations through its modular capabilities. Each HELIX module, including Automation, Sentinel, Telemetry, IoT, 3D Connect, and Dispatch, provides specialised functionalities to optimise different aspects of mining. From real-time data capture and advanced automation to environmental monitoring and fleet management, HELIX integrates cutting-edge technology to streamline processes, improve safety, and drive efficiency. Its flexible architecture allows for seamless integration and customisation, making HELIX a powerful tool for modern mining operations.



3D CONNECT

INTERACTIVE SPATIAL INSIGHTS

HELIX 3D Connect is a real-time RTLS (Real-Time Location System) solution enabling communication with personnel and assets within the mine environment.



AUTOMATION

MINE-WIDE AUTOMATION

HELIX Automation enables the “intelligent mine”, enhancing efficiency and safety using personnel and asset location intelligence for controlling fans, pumps, doors, traffic lights etc.



SENTINEL

ENHANCED SAFETY MONITORING

HELIX Sentinel, integrated into the HELIX Platform, delivers real-time visibility of underground personnel locations, enhancing situational awareness, safety monitoring, and operational response.



DISPATCH

OPTIMISE FLEET MANAGEMENT

HELIX Dispatch delivers unparalleled fleet management from the production face to surface and all points in between.



IOT

SMART SENSOR NETWORK

HELIX IoT enables large-scale deployments for remote monitoring and automation use-cases across vast areas.



TELEMETRY

TRACK EQUIPMENT HEALTH

HELIX Telemetry reduces machine downtime and maintenance costs through real-time tracking and analysis, enabling informed decision-making and optimised performance.



GEOSPATIAL DIGITAL-TWIN

Data is captured geospatially by real-time sensors, cameras, smart and edge devices, and wearables, all collected by a high-bandwidth, low-latency IP network. This network is agnostic to wireless solutions and features interoperability capability through MQTT. The HELIX platform provides an enterprise-level 3D visualisation system that acts on this information, leveraging artificial and operational intelligence to improve safety and productivity in real-time.

HELIX offers comprehensive digital monitoring, automation, and control for mining and tunneling, covering the entire mine. It includes next-generation precision tracking, proximity detection, and collision avoidance, all unified with full data capability. This ensures enhanced operational safety and efficiency throughout the mining process.



How can HELIX address and solve the unique operational challenges faced by mining companies?

Our goal is to provide a scalable digital platform that enhances comprehensive mine safety and optimises productivity.

01

Key Challenges in Mining Operations

Safety Risks: Ensuring the safety of workers in hazardous conditions, managing real-time emergency response, and adhering to stringent safety regulations.

Operational Efficiency: Optimising resource allocation, maintaining equipment, and managing workflows to ensure continuous and cost-effective operations.

Environmental Impact: Minimising the environmental footprint of mining activities, managing waste, and ensuring compliance with environmental regulations.

Data Management: Handling large volumes of data from various sources, ensuring data accuracy, and utilising data effectively for decision-making.

Cost Control: Managing operational and capital expenses, reducing downtime, and implementing cost-saving technologies.

02

Need for Real-time Data and Automation

Real-time Operational Awareness: Eliminate data latency and gain a holistic view of the mining environment through real-time data capture and visualisation. This empowers faster response times to critical events and informed decision-making based on current conditions.

Enhanced Situational Intelligence: Leverage real-time data streams to generate actionable insights and predictive analytics. This enables proactive maintenance, optimised resource allocation based on dynamic needs, and improved safety protocols through risk anticipation.

Reduced Operational Friction: Implement automated workflows and machine-to-machine communication to streamline processes, minimise human error, and optimise resource utilisation. This translates to increased efficiency, reduced downtime, and improved overall production flow.

03

Safety and Productivity Concerns

Limited Environmental Awareness: Underground environments present inherent risks like gas leaks, equipment failure, and cave-ins. Real-time monitoring and location tracking are crucial for mitigating these risks and ensuring worker safety.

Data Silos and Delayed Insights: Fragmented data sources and delayed information hinder proactive safety measures and timely response to emergencies.

Inefficient Resource Allocation: Manual resource allocation processes can lead to underutilised assets and bottlenecks in production flow. Real-time data and analytics can optimise resource allocation based on dynamic needs and workload demands.

Limited Operational Visibility: Lack of real-time visibility into equipment health, asset location, and task completion can hinder proactive maintenance and timely intervention, leading to inefficiencies and production delays.

THE SCALABLE PLATFORM THAT POWERS INSIGHT

HELIX

UNIFYING YOUR MINE'S OPERATIONS WITH CENTRALISED CONTROL, SEAMLESS INTEGRATION, AND REAL-TIME INSIGHTS

The HELIX platform is the vital engine that powers the various critical functionalities. These include Wi-Fi tracking for tracking tags, Mine Phone, and VIP personnel, as well as network device management. Additionally, HELIX facilitates telephony services, including Push-to-Talk (PTT) and Session Initiation Protocol (SIP) communications.

Key Features:

Network Management: HELIX ensures the smooth operation and performance of the network infrastructure that underpins the HELIX platform. This includes tasks like device configuration, network monitoring, and troubleshooting.

Wi-Fi Tracking Engine: It processes and interprets Wi-Fi signals from tagged personnel and equipment, enabling real-time location tracking within the geospatial digital twin created by HELIX 3D Connect.

Voice and Message Management: This functionality facilitates communication between personnel underground through functionalities like voice calls and text messaging. It integrates with the real-time location data, allowing for targeted communication based on location.

Key Benefits:

Enhanced Operational Efficiency: Improves productivity through real-time data and automation.

Optimised Decision-Making: Facilitates informed decisions with comprehensive visualisation.

Scalability and Adaptability: Adapts to varying operational scales and requirements.

Cost Efficiency: Reduces operational costs with tailored solutions and efficient data handling.

Improved Safety: Enables proactive monitoring and control for safer mining operations.

User-Friendly Interface: Enhances user experience with intuitive navigation and management.

Integrated Management: Centralises software control and operational oversight for enhanced efficiency.

3D REPRESENTATION GIVES CONTEXT AT A GLANCE

HELIX 3D Connect

GEOSPATIAL DIGITAL TWIN AND REAL-TIME LOCATION TRACKING SYSTEM

HELIX 3D Connect is a module enabling communication with personnel and assets within the mine environment.

Real-time Oversight: Gain real-time visibility across multiple mine sites for improved decision-making.

Multi-Positioning Technology: Utilise various positioning technologies like Wi-Fi, UWB, BLE, and GNSS with varying Quality of Positioning (QoP) options.

Customisable Insights: Create tailored dashboards and reports with relevant data for various user needs.

Scalable Tracking Views: Adjust the tracking view to match your specific requirements.

Direct Messaging: Streamline communication through in-app messaging directly on the tracking map.

Surface & Underground Visibility: Gain a comprehensive perspective by including surface maps alongside underground activities.

3D Visualisation: Experience a 3D representation of your entire mining environment (surface & underground) with support for different geospatial coordinate systems. Choose between 2D or 3D visualisations for surface and underground environments.

Real-time Tracking & Reverse Tracking: Track assets in real-time and reconstruct their historical movement outside communication range (reverse tracking).

Geofencing: Implement extensive geofencing capabilities with support zones and beacons.



Curious about the cutting-edge tracking technologies supported by HELIX 3D Connect?

Enhance safety, optimise operations, and gain comprehensive visibility across your entire mining site with HELIX 3D Connect.

HELIX 3D Connect supports four advanced tracking technologies:

Wi-Fi Positioning

Leveraging existing Wi-Fi infrastructure, HELIX Wi-Fi Positioning enables real-time tracking of personnel and equipment. By calculating signal strength from strategically placed access points, it determines precise locations, enhancing both safety and operational efficiency.

Ultra-Wideband (UWB) Positioning


HELIX UWB Positioning provides highly accurate position tracking by measuring signal travel times between tags and anchors. This makes it ideal for complex underground environments where traditional tracking methods may falter. UWB's minimal interference with physical obstacles ensures reliable performance, which is particularly crucial for safety applications such as proximity detection and collision avoidance.

Bluetooth Low Energy (BLE) Positioning

HELIX BLE Positioning uses energy-efficient beacons with extended battery life, making them ideal for continuous use in mining environments. This technology is perfect for offering a scalable and cost-effective solution. Numerous beacons can be deployed to track personnel and assets with precision.

Global Navigation Satellite System (GNSS) Positioning

HELIX GNSS Positioning delivers accurate tracking for surface and near-surface operations, particularly for vehicles and heavy equipment. It covers large areas and provides precise position data, making it ideal for integration with fleet management systems.

A yellow mining truck is shown from a rear perspective, driving through a dark, rocky tunnel. The truck is illuminated by its own headlights and the ambient light of the tunnel. At the top of the image, a digital overlay in a white box contains the text "GO TO CRUSHER 6" in large letters, with "TRAVELLING FULL" in smaller letters below it.

GO TO CRUSHER 6
TRAVELLING FULL

REAL-TIME FLEET MANAGEMENT AND PRODUCTIVITY TRACKING

HELIX Dispatch

THE FLEET MANAGEMENT
MODULE OF THE HELIX
ENTERPRISE PLATFORM

HELIX Dispatch delivers unparalleled fleet management from the production face to surface and all points in between.

With its advanced automation features, HELIX Dispatch empowers dispatchers and supervisors to oversee shift plans, monitor performance, and address issues promptly. This integrated solution enhances equipment utilisation, improves operational efficiency, and ensures timely material extraction, ultimately driving better decision-making and increased safety in mining operations.

Key Features:

Real-Time, Automated Production Tracking: Capture material movements without operator input and maintain material inventories in real-time.

Task Management: Enables identification of mining cycle inefficiencies and real-time monitoring of progress to production targets.

Time Tracking: Provides tools to manage time effectively, empowering dispatchers and supervisors to easily identify constraints and delays.

Single Source of Truth: Streamlines task lists for the entire fleet, increasing equipment utilisation and maximising material extraction.

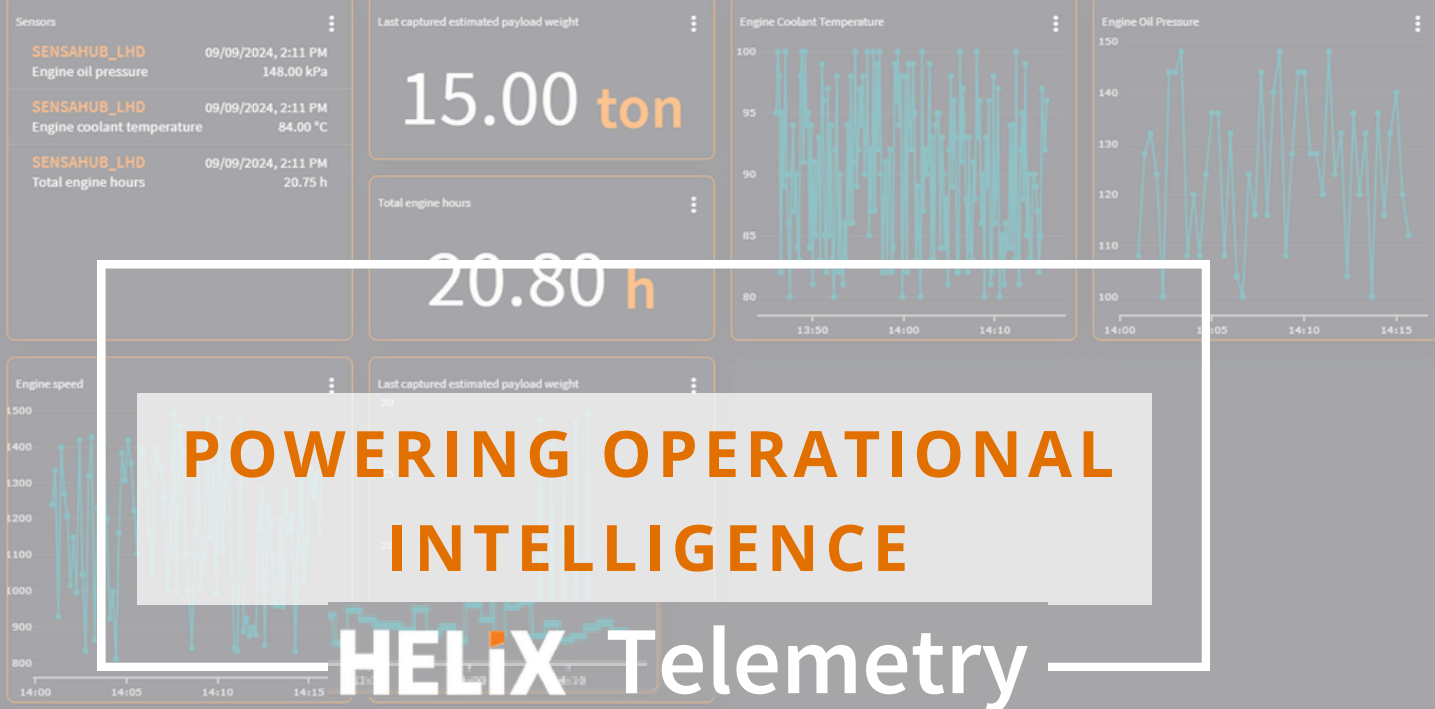
Safety Checklists: Enhances equipment operator safety with digitised pre-start checks and location safety checklists.

Extensive Feature Set: Includes both Core and Optional features to tailor the solution to specific operational needs.



HELIX Dispatch features essential modules for Production Tracking, Fleet Management, Material Management, and Safety Management, all designed to optimise efficiency, ensure safety, and streamline operations. These components work in unison to enhance productivity and resource management across your mining operations.

<p style="text-align: center;">Production Tracking</p> <ul style="list-style-type: none"> • Production Cycles • Drilling • Consumables 	<p style="text-align: center;">Material Management</p> <ul style="list-style-type: none"> • Material Inventory • Grade Tracking • Dump Assignments • Crew Line-Up • Draw Cards
<p style="text-align: center;">Fleet Management</p> <ul style="list-style-type: none"> • Short Interval Control • Equipment Status Tracking • Operator Messaging • Machine Hours • Location Status Tracking 	<p style="text-align: center;">Safety Management</p> <ul style="list-style-type: none"> • Hazard Detection • Operator Qualifications • Equipment Prestart • Location Checklist



HELIX Telemetry is a core capability within the HELIX platform that captures, aggregates, and contextualises real-time machine and vehicle data across underground mining operations. Designed as an OEM-agnostic solution, it enables seamless integration with a wide range of fleet and equipment systems to provide a unified, high-fidelity view of equipment health, performance, and utilisation. By transforming raw telemetry data into actionable insights, HELIX Telemetry empowers operations teams to move from reactive maintenance to predictive, data-driven decision-making, reducing downtime, improving reliability, and optimising asset performance.

WHAT HELIX TELEMETRY ENABLES:

Real-Time Equipment Visibility

- Monitor machine performance, status, and health metrics in real time from surface, across all connected assets.

Unified Fleet Data Integration

- Consolidate telemetry data from multiple OEM systems into a single, standardised platform for consistent analysis and reporting.

Operational Context Through Spatial Awareness

- Combine telemetry data with HELIX's geospatial digital twin to understand not just what is happening, but where it is happening.

Continuous Data Availability

- Maintain data capture and synchronisation even in intermittent or disconnected network environments.

Data-Driven Decision Support

- Enable maintenance, operations, and planning teams with accurate, timely insights to optimise performance and reduce risk.

KEY AUTOMATION FEATURES:

Rule-Based Automation Engine

- Define configurable automation rules that respond to tracking data, alarms, and IoT inputs.

Geospatial Awareness

- Rules can reference zones, intersections, declines, and mine layout to apply automation exactly where conditions occur.

Multi-Input Decision Logic

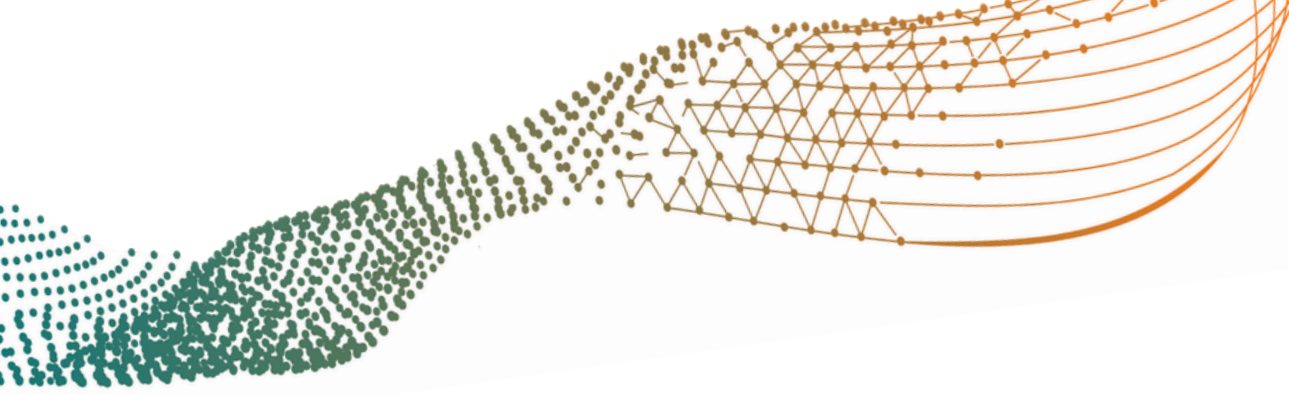
- Combine tracking data, IoT values, telemetry, and alarms in a single rule to support complex operational scenarios.

Automated Outputs

- Trigger actions such as:
- Visual alerts and lighting behaviour
- Equipment or system actions via connected interfaces
- Notifications and operational state changes

Execution History & Review

- Automation events and outcomes are recorded for review, investigation, and continuous improvement.



KEY TELEMETRY CAPABILITIES

Multi-OEM Data Integration

- Connect to a wide range of vehicle and equipment systems, supporting OEM-agnostic data ingestion without complex custom integration layers.

Real-Time Monitoring & Alerts

- Capture live telemetry values such as engine performance, load metrics, temperatures, pressures, and fault codes, with configurable thresholds and alerts for rapid response.

Geo-Tagged Event Visualisation

- Telemetry events, alarms, and machine states are mapped directly onto the HELIX 3D environment, providing immediate spatial context for operational awareness.

Historical Data & Trend Analysis

- Store and analyse historical telemetry data to identify patterns, support root-cause analysis, and enable predictive maintenance strategies.

Offline Data Handling & Synchronisation

- Ensure continuity of data collection in low-connectivity environments, with automatic synchronisation once communication is restored.

Advanced Analytics & Reporting

- Leverage dashboards, visualisation tools, and export capabilities to support performance analysis, compliance reporting, and operational optimisation.

KEY USE CASES

Predictive Maintenance & Reliability

- Analyse trends in engine hours, temperatures, and fault conditions to predict failures before they occur—reducing unplanned downtime.

Fleet Performance Optimisation

- Track utilisation, payload, and cycle performance to identify inefficiencies and improve overall fleet productivity.

Alarm & Fault Management

- Provide immediate visibility of critical machine alarms, enabling faster troubleshooting and reduced equipment damage risk.

Operational Decision Support

- Support supervisors and planners with accurate, real-time insights into equipment status and availability.

Cross-System Data Correlation

- Combine telemetry data with IoT, tracking, and automation inputs to deliver a holistic operational view across the mine.

KEY BENEFITS

Reduced Downtime

- Shift from reactive to proactive maintenance, minimising unexpected equipment failures.

Improved Equipment Reliability

- Continuous monitoring ensures assets operate within optimal parameters.

Enhanced Safety

- Early detection of abnormal conditions helps prevent hazardous equipment failures.

Operational Efficiency Gains

- Optimise asset utilisation and reduce bottlenecks through better visibility.

Single Source of Truth for Fleet Data

- Eliminate data silos by consolidating telemetry across multiple OEM systems.

Scalable & Future-Ready

- Easily expand to support additional assets, data sources, and advanced analytics use cases.



SMART, SCALABLE, REAL-TIME MONITORING HELIX IoT

IMPROVE PRODUCTIVITY AND MITIGATE RISK WITH A SCALABLE IOT SOLUTION

HELIX IoT is a capability within the HELIX platform that connects, ingests, and visualises data from underground devices and industrial systems using standard industrial protocols such as MODBUS. It provides a unified way to bring sensor data, equipment status, camera feeds, and environmental values into HELIX – making them visible on maps, available for alarms, and ready for use by automation and reporting. HELIX IoT focuses on data acquisition and operational visibility (control and workflows are handled within Automation).

HELIX IoT ENABLES MINES TO:

- Connect industrial and environmental devices
- Collect live and historical device data
- Visualise device status and values on underground maps
- Expose trusted data to alarms, automation, and analytics
- All data is spatially contextualised, allowing operators to understand what is happening, where it is happening, and how it is changing over time.

KEY IoT CAPABILITIES:

Industrial Device Connectivity

- Connect devices using standard industrial protocols without requiring additional middleware.

Map-Based Device Visualisation

- Devices are placed at their real underground locations, allowing live values and status to be viewed in spatial context.

Live Values & Status Monitoring

- View real-time measurements, operational states, and connectivity status from surface.

Alarm & Threshold Exposure

- Device data is made available to HELIX alarms for safety and operational monitoring.
- Historical Data & Trending
- Sensor values and device states are stored for trend analysis, investigations, and reporting.

Camera Integration

- Live camera feeds are integrated directly into HELIX and linked to map locations for fast visual verification

HELIX IoT SUPPORTS DEVICES INCLUDING:

Environmental & Gas Monitoring

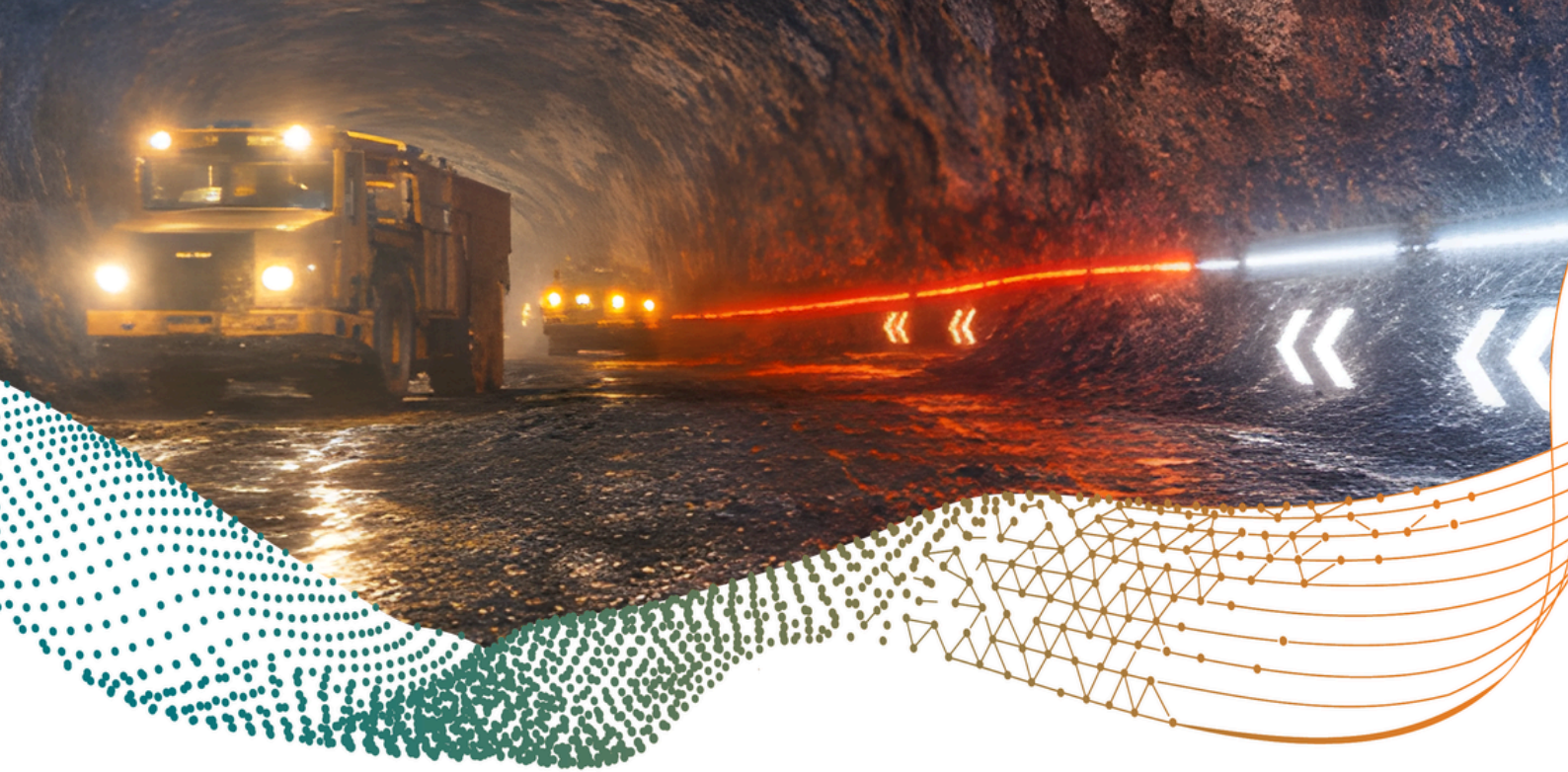
- Fixed gas sensors
- Environmental monitors in return airways and headings

Industrial Infrastructure

- Ventilation fans and pumps
- Power and status signals from underground equipment

Visual Systems

- Underground cameras (e.g. RTSP streams)
- Visual alert devices such as Patlite and MineGlow
- Visual alert devices are connected and monitored via HELIX IoT, with behaviour driven by alarms and HELIX Automation.



KEY IoT USE CASES:

Strata Monitoring

- Monitor ground movement, stress changes, and strata behaviour to identify instability early and support safer underground access, operations, and re-entry planning.

Gas Monitoring

- Visualise gas levels in return airways and other critical locations to support safe and informed re-entry decisions.

Strata Monitoring

- Monitor ground movement, stress changes, and strata behaviour to identify instability early and support safer underground access, operations, and re-entry planning.

Fixed Asset & Infrastructure Monitoring

- Track pumps, fans, doors, and other underground assets for status, health, and early fault detection.

Remote Visual Confirmation

- Use camera feeds to visually verify equipment operation and underground conditions without sending personnel underground.

Environmental Conditions Monitoring

- Monitor airflow, temperature, humidity, dust, and water ingress to identify changing underground conditions early.

KEY BENEFITS:

Improved Underground Visibility

- Operators gain a single, real-time view of underground device conditions from surface.

Reduced Manual Checks

- Minimises the need for physical inspections by providing continuous monitoring.

Trusted Data Foundation

- Creates a reliable data layer that alarms, automation, and reporting can safely depend on.

Scalable Device Integration

- Supports expanding device fleets and new use cases without redesigning the platform.

Operational Confidence

- Combines live data, historical trends, and spatial context in one system.



SEAMLESS INTEGRATION, PRECISION CONTROL HELIX Automation

HELIX Automation is a capability within the HELIX platform that consumes real-time data from tracking systems, IoT devices, telemetry, and alarms and applies rules, workflows, and logic to automatically drive underground responses.

It enables mines to move from monitoring to action – using location, sensor data, and operational context to deliver automated decisions across safety and productivity workflows.

HELIX Automation does not collect device data itself; it acts on trusted data already available within HELIX from tracking, IoT, telemetry, and external systems.

HELIX AUTOMATION CONTINUOUSLY EVALUATES:

- Personnel and vehicle location and movement
- IoT and telemetry values (e.g. gas levels, fan status, pump status)
- Alarm and emergency states
- Zones, rules, and site context
- Based on these inputs, HELIX Automation triggers automated actions to control behaviour, issue warnings, and enforce operational rules across the mine.

KEY AUTOMATION FEATURES:

Rule-Based Automation Engine

- Define configurable automation rules that respond to tracking data, alarms, and IoT inputs.

Geospatial Awareness

- Rules can reference zones, intersections, declines, and mine layout to apply automation exactly where conditions occur.

Multi-Input Decision Logic

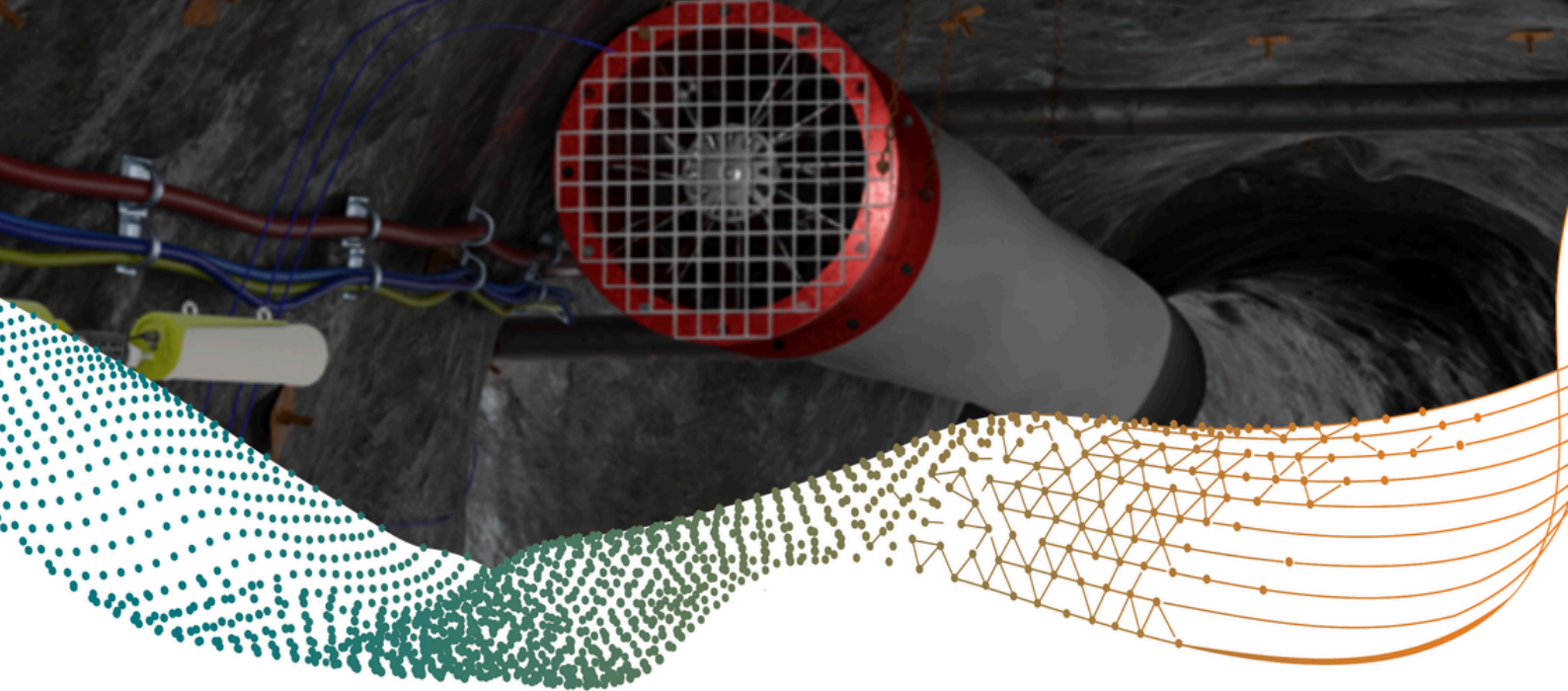
- Combine tracking data, IoT values, telemetry, and alarms in a single rule to support complex operational scenarios.

Automated Outputs

- Trigger actions such as:
 - Visual alerts and lighting behaviour
 - Equipment or system actions via connected interfaces
 - Notifications and operational state changes

Execution History & Review

- Automation events and outcomes are recorded for review, investigation, and continuous improvement.



KEY AUTOMATION USE CASES:

Ventilation on Demand (VoD)

Automatically manage ventilation behaviour based on:

- Vehicle or personnel presence
- Zone occupancy
- Gas or environmental thresholds
- Delivers airflow only where and when it is required, improving efficiency and safety.

Underground Traffic Control (One-Way & Intersections)

Automate traffic behaviour using:

- Vehicle location and direction
- Intersection and decline zones
- Controls lights and warnings to reduce collision risk and improve pedestrian safety.

Emergency-Driven Lighting & Alerts

Automatically activate visual alerts based on:

- Emergency alarms
- Evacuation states
- Restricted zone breaches
- Ensures clear, immediate underground communication during critical events.

Post-Blast & Restricted Area Control

Automate access control and warnings using:

- Gas sensor values
- Time-based or alarm-based clearance logic
- Prevents entry until underground conditions are confirmed safe.

KEY BENEFITS:

- Improved Safety
- Reduces reliance on manual intervention during emergencies and high-risk situations.
- Operational Consistency
- Ensures automation rules are applied consistently across shifts and operators.
- Faster Response
- Automated actions occur immediately when defined conditions are met.
- Scalable Automation
- Supports growing numbers of rules, zones, and use cases without operational complexity.



TRANSFORMING MINE SAFETY AND EFFICIENCY

HELIX Sentinel

HELIX Sentinel, integrated into the HELIX Platform, delivers real-time visibility of underground personnel locations, enhancing situational awareness, safety monitoring, and operational response. With access to a digital dashboard, users can easily track individuals within specific zones. Deploy multiple tag-boards on flat screens in key areas for real-time awareness. Sentinel provides intuitive, customisable visual cues for proactive personnel management and optimised mining operations, delivering tangible benefits.

Digitally manage personnel location and well-being with HELIX Sentinel.

KEY BENEFITS:

Digital Tagboard

- HELIX Sentinel replaces traditional physical tagboards with a digital solution. Easily track the location and status of equipment and personnel in real-time using the HELIX 3D geospatial digital twin.

Enhanced Communication

- Facilitating communication between personnel by integrating with other HELIX modules, potentially allowing features like location-based messaging or real-time alerts.

Improved Visibility

- By visualising the location and status of personnel and equipment on the geospatial digital twin, HELIX Sentinel provides a clear picture of underground activities, enhancing overall situational awareness for better decision-making and faster response times.

Streamlined Workflow Management

- With real-time location data and improved communication, HELIX Sentinel can potentially automate tasks related to dispatching personnel and equipment, optimising workflow management.



ENSURING SAFETY THROUGH REAL-TIME TRACKING

KEY SENTINEL USE CASES:

Unassigned Tag Alerts

- Automatically notify the control room when a tag is detected without a valid personnel assignment, helping maintain accurate visibility of everyone underground.

Hazardous Area Time & Overtime Compliance

- Monitor how long personnel remain in hazardous or restricted areas and flag overtime or overexposure conditions before they become a safety or compliance risk.

Kiosk Sign-In / Sign-Out Monitoring

- Verify that personnel have correctly signed in before going underground and signed out when exiting, improving traceability, shift accountability, and emergency readiness.

Real-Time Zone Presence Tracking

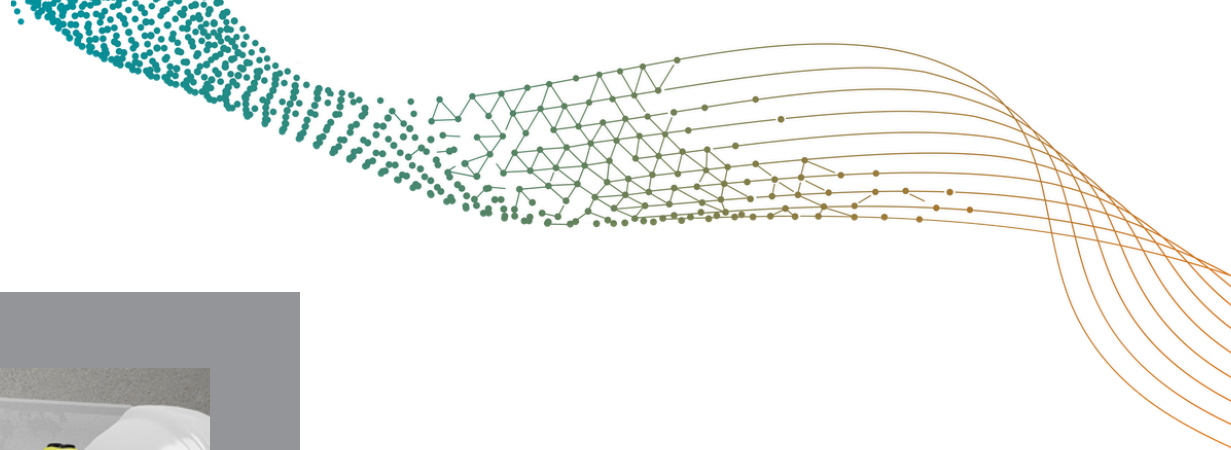
- Provide live visibility of who is in each underground zone at any given time, supporting supervision, dispatch, access compliance, and faster incident response.

Muster & Emergency Accountability

- Rapidly confirm who has reached designated muster points during an incident or evacuation and identify anyone who is still underground or unaccounted for.

Restricted Area Access Alerts

- Detect entry into unauthorised or geofenced areas and notify supervisors immediately to improve movement control and reduce exposure to unsafe conditions.



ENSURING SAFETY THROUGH REAL-TIME TRACKING

HELIX Sentinel prioritises both safety and operational efficiency by combining real-time personnel location and activity tracking, with automated zone monitoring, streamline operations and resource allocation. Proactive alerts for safety protocol violations and incident response are facilitated by continuous monitoring, while automated data analysis empowers data-driven decision-making, ultimately enhancing productivity and worker safety.



KEY BENEFITS:

Enhanced Safety Monitoring: Provides real-time tracking of personnel and equipment to ensure safety in mining operations.

Proactive Incident Response: Alerts and notifications for immediate action in case of safety breaches or emergencies.

Comprehensive Environmental Monitoring: Tracks environmental conditions such as gas levels, temperature, and humidity to maintain a safe working environment.

Improved Operational Efficiency: Optimises resource allocation and operational processes through detailed monitoring and data analysis.

Seamless Integration: Easily integrates with existing systems and IoT devices for a unified monitoring solution.

User-Friendly Interface: Intuitive dashboards and reports for easy access to critical information.

Scalability and Flexibility: Adapts to the unique needs of various mining operations, from small-scale projects to large, complex mines.



CONTACT US

FOR MORE INFORMATION ABOUT OUR INNOVATIVE SOLUTIONS
PLEASE CONTACT YOUR LOCAL MST GLOBAL OFFICE:

AUSTRALIA

Sydney

Level 5, 113 Wicks Road North
Ryde, NSW, 2113
+61 2 9491 6500
enquiries@mstglobal.com

Brisbane

66 Montpelier Rd
Fortitude Valley, QLD, 4006
+61 2 9491 6500
enquiries@mstglobal.com

Perth

Unit 1, 94 President Street
Welshpool, WA, 6106
+61 8 6255 5740
enquiries@mstglobal.com

Gladstone

2/38 Lord Street
Gladstone, QLD, 4680
+61 7 4972 2000
gladstone.reception@mstglobal.com

Mackay

149 Shakespeare Street
Mackay, QLD, 4740
+61 7 4944 4000
mackay.admin@mstglobal.com

UNITED STATES

Denver

13301 W43rd Drive, Unit 15,
Golden, CO, 80403
+1303 951 0570
americasales@mstglobal.com

CANADA

Sudbury

260 Fielding Rd
Lively, ON P3Y 1L6
Canada
+1 877 573 7170
americasales@mstglobal.com

CHILE

Santiago

Avenida Andrés Bello 2777,
oficina 1302 1303,
Las Condes, R.M, 7550000
+56 2 2388 0984
americasales@mstglobal.com

PERU

Lima

Av. Jorge Basadre 592
oficina 205 - 206, San Isidro,
Lima, Peru
+51 1 304 2551
americasales@mstglobal.com

AFRICA, EUROPE & MIDDLE EAST

South Africa

Modular Place, Suite 343
Turnberry Office Park
48 Grosvenor Road
Bryanston, Johannesburg 2021
+27 11 060 8500
enquiries@mstglobal.com

Dubai

Komatsu Middle East FZE,
Jebel Ali, S300
Dubai, UAE
+9 714 876 7502
enquiries@mstglobal.com

CHINA

Hangzhou

4th Floor, Building 1
1413 Moganshan Road
Hangzhou, Zhejiang Province
310011
+86 571 8817730
FAE.China@mstglobal.com



enquiries@mstglobal.com



+61 2 9491 6500



www.mstglobal.com



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