Mining value through Digital Solutions

MineRP
Powered by Epiroc

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Welcome to the
Mine of the Future

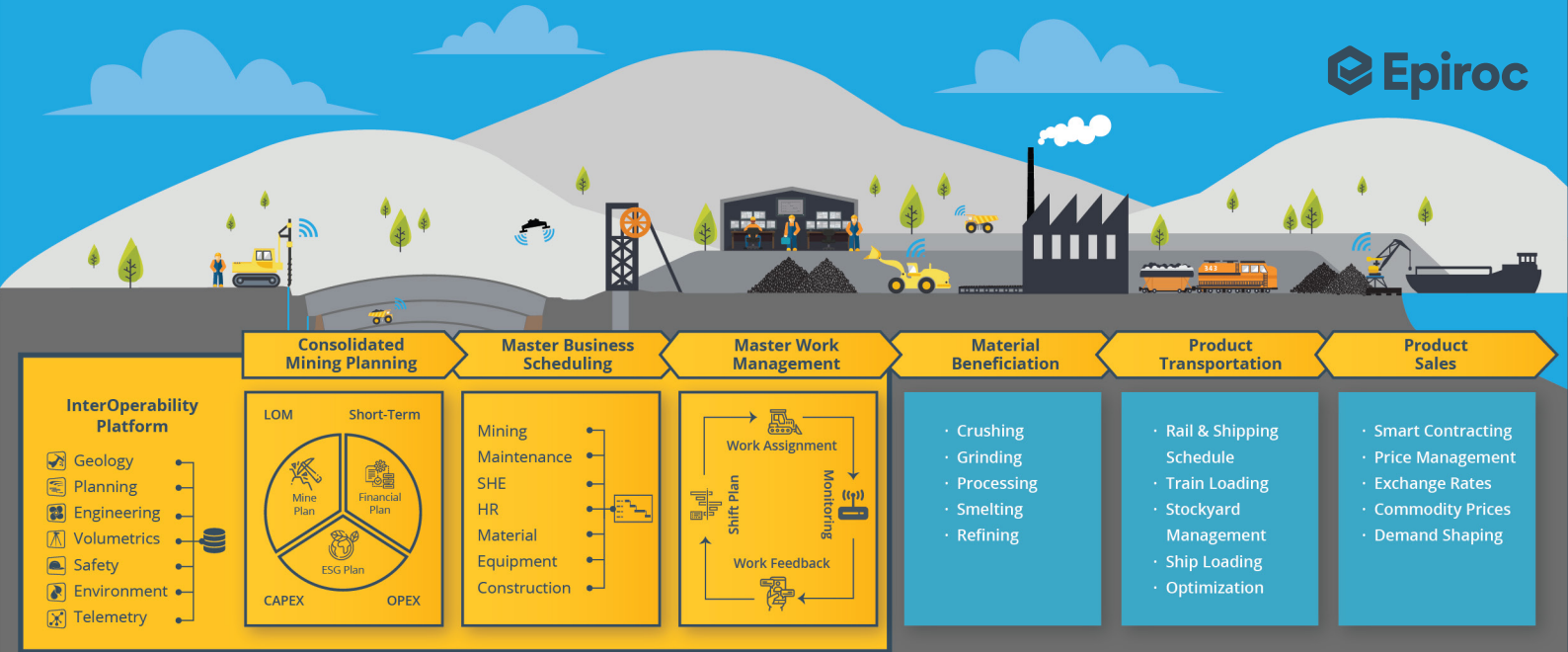**MineRP**
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The mine of the future is productive, profitable and a good corporate citizen.

Globally, pressure is mounting to prepare for a stakeholder economy that expects more. More minerals, more money, and more transparency.

As CEOs and boards grapple with greater responsibilities, executives are tasked with delivering ever more complex and inter-dependent outcomes.

Epiroc Technology and Digital is your partner in delivering measurable value through our OEM-independent digital portfolio. From strategic planning to in-shift execution, our solutions are built for the future, and our experts intently focused on making mines successful.

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Consolidated Mining Planning	Master Business Scheduling	Master Work Management	Material Beneficiation	Product Transportation	Product Sales

InterOperability Platform
- Geology
- Planning
- Engineering
- Volumetrics
- Safety
- Environment
- Telemetry

LOM Short-Term
- Mine Plan
- Financial Plan
- ESG Plan
CAPEX OPEX

- Mining
- Maintenance
- SHE
- HR
- Material
- Equipment
- Construction

Work Assignment
Shift Plan — Monitoring
Work Feedback

Material Beneficiation
- Crushing
- Grinding
- Processing
- Smelting
- Refining

Product Transportation
- Rail & Shipping Schedule
- Train Loading
- Stockyard Management
- Ship Loading
- Optimization

Product Sales
- Smart Contracting
- Price Management
- Exchange Rates
- Commodity Prices
- Demand Shaping

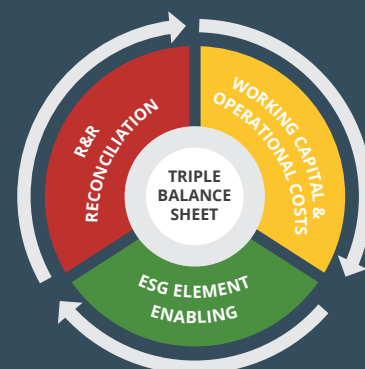# MineRP in a Nutshell

MineRP Powered by Epiroc

MineRP is a mining software company that provides value driven solutions at every level of the business, from strategy setting to operational execution.

Our goal is to facilitate an InterOperable Mining Operation by digitally connecting the enterprise from the boardroom to the face.

The MineRP Platform uniquely connects the mine plan and operations schedule with financial and logistical processes while continuously infusing ESG commitments at every point.

InterOperable Mining Operations Management

R&R RECONCILIATION · WORKING CAPITAL & OPERATIONAL COSTS · ESG ELEMENT ENABLING · TRIPLE BALANCE SHEET

What you get from MineRP

Consolidated Mining Planning
- Consolidate your mine plans, from Life of Mine to the next shift's detail
- Manage Production, Financial and ESG Plans on one Platform
- Continue using the design, planning and scheduling tools you already own

Master Business Scheduling
- Integrate your mine plan, maintenance schedules and much more
- Do away with conflicts through a Master Business Schedule containing all work
- Optimize your MBS and get the guaranteed best schedule
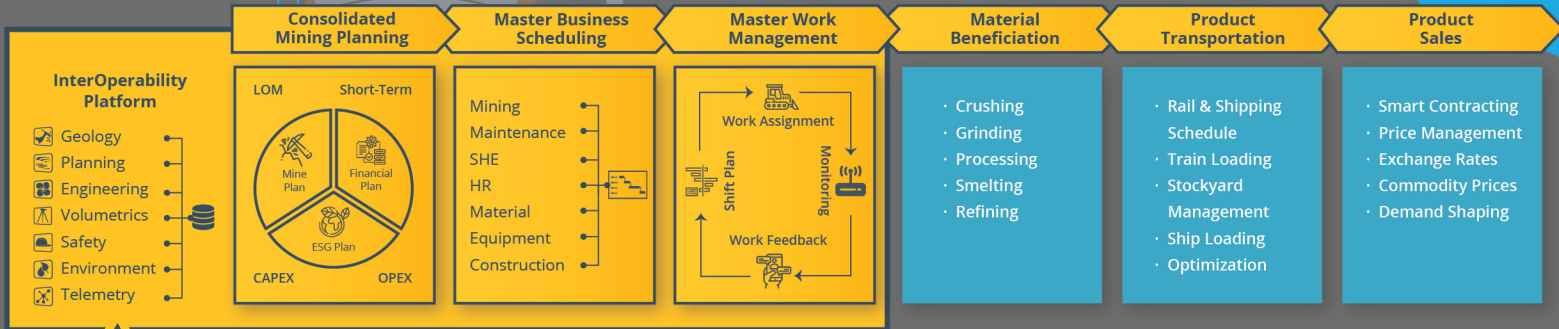
Master Work Management
- Detailed, task-level plans for every shift
- Seamlessly integrate with Fleet Management Systems
- Continuously update schedules from Operational Feedback systems

Continuously Infused ESG
- Don't just report on ESG after the fact
- Evaluate planning scenarios with ESG baked-in from the start
- Use smart SOPs that implement your ESG rules as you transact to execute your plans

Integrated Business Transactions
- Dynamically create smart transactions from every planned activity on your Master Business Schedule
- Get the right resources to the right place at the right time while staying on top of Costs and Supply Chain

InterOperability
- Continuously integrate all the systems you already use
- Be hyper-aware of equipment, production and environmental conditions in real time
- Immediate actionable insight
- Advanced analytics, AI and ML ready

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The Only InterOperable Platform for Mining

MineRP — Powered by Epiroc

Integrated Platform

MineRP solves the problem of slow decision making in both planning and execution through a **standards-driven platform for mining.**

- One version of the truth
- OEM & Software Vendor Independent
- Fast and accurate collaboration through RPA

Generate Value

- Advanced analytics, AI and ML ready
- Faster decisions during the shift means safer and more productive outcomes
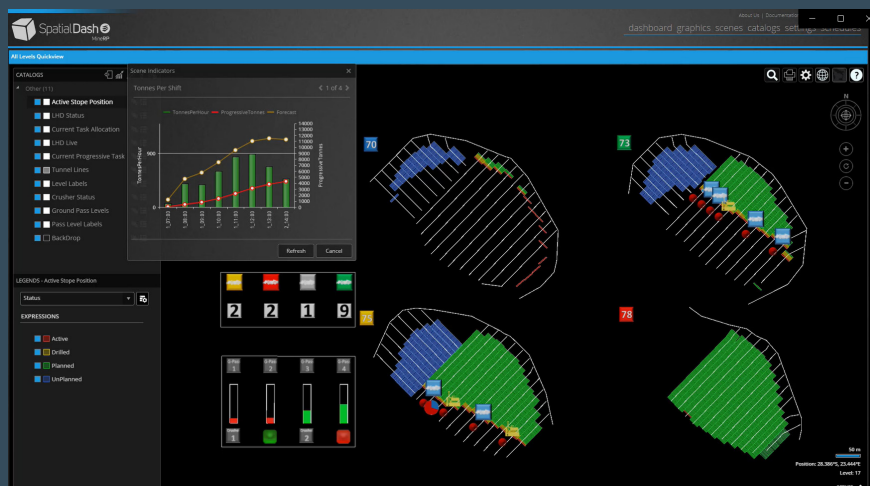- 3D Visualization and Analytics built-in

Connect Everything

- Keep the systems you have already invested in through capital and training
- Robotic Process Automation takes care of systems-collaboration while you take care of mining

Interfaced systems are dead. Integration happened yesterday.

Operational Agility only comes when systems dynamically Inter-Operate to implement your processes and accurately support decisions.

Harnessing Integrated data streams to manage production, draw control and equipment utilization
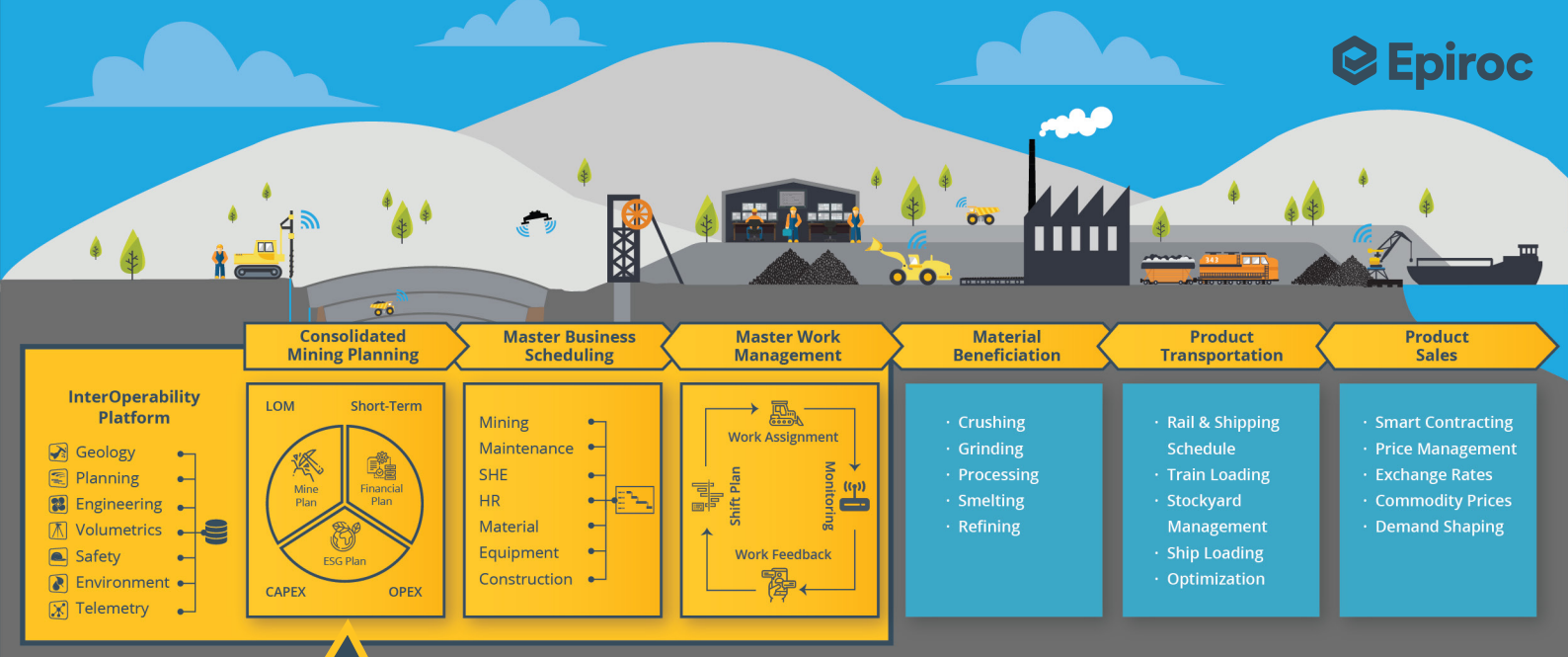

Underground Diamond Mine

+10% Production

+100% Draw Compliance

Integrated by MineRP

- In-Shift Actuals & Projections
- Detailed Task Feedback
- Vehicle Availability
- Ore Pass Levels

Top diagram labels

InterOperability Platform
- Geology
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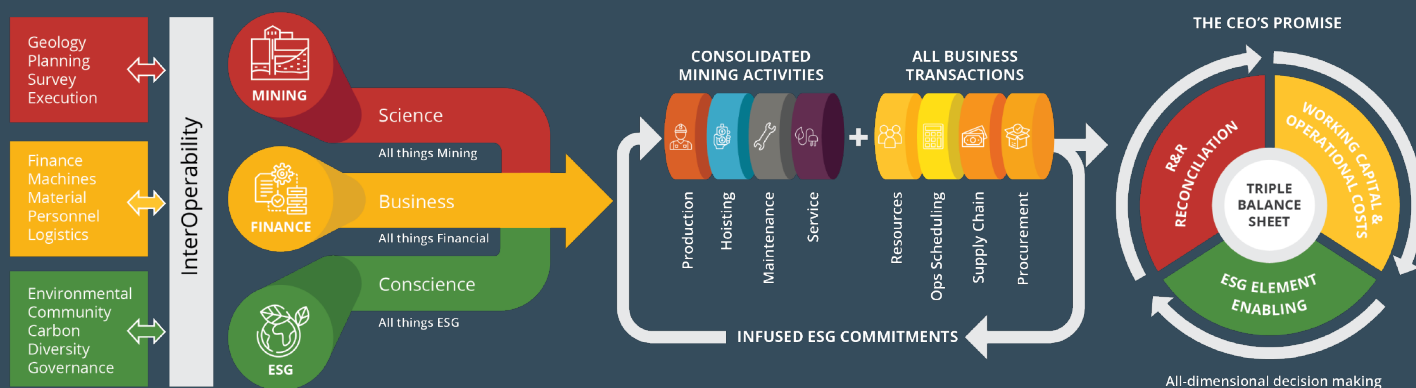- Exchange Rates
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Break Silos with Consolidated Mining Planning

While many companies scramble to implement ex post facto reporting tools, smart companies prioritize ways to operationalize ESG commitments into they way they plan, execute, procure, contract and otherwise transact. The way that companies allocate capital in the immediate future will undeniably make or break their competitive advantage over the next decade.

MineRP offers a unique way to go beyond integrated planning, and consolidate Mine, Financial and ESG Planning by using planned mining activities to drive the budget, and ESG commitments to provide the guardrails for decision making as the business transacts to execute the plan.

Stop creating reports. Embed your values into your strategies and tactics with MineRP.

Lower diagram labels

- Geology Planning Survey Execution
- Finance Machines Material Personnel Logistics
- Environmental Community Carbon Diversity Governance

InterOperability

- MINING — Science — All things Mining
- FINANCE — Business — All things Financial
- ESG — Conscience — All things ESG

CONSOLIDATED MINING ACTIVITIES
- Production
- Hoisting
- Maintenance
- Service

ALL BUSINESS TRANSACTIONS
- Resources
- Ops Scheduling
- Supply Chain
- Procurement

INFUSED ESG COMMITMENTS

THE CEO'S PROMISE
- R&R RECONCILIATION
- WORKING CAPITAL & OPERATIONAL COSTS
- ESG ELEMENT ENABLING
- TRIPLE BALANCE SHEET

All-dimensional decision making

Bottom columns

Fast Mine Plans
- MineRP consolidates your mine plans, from Life of Mine to the next shift's detail
- Your engineers use the design, planning and scheduling tools they already love
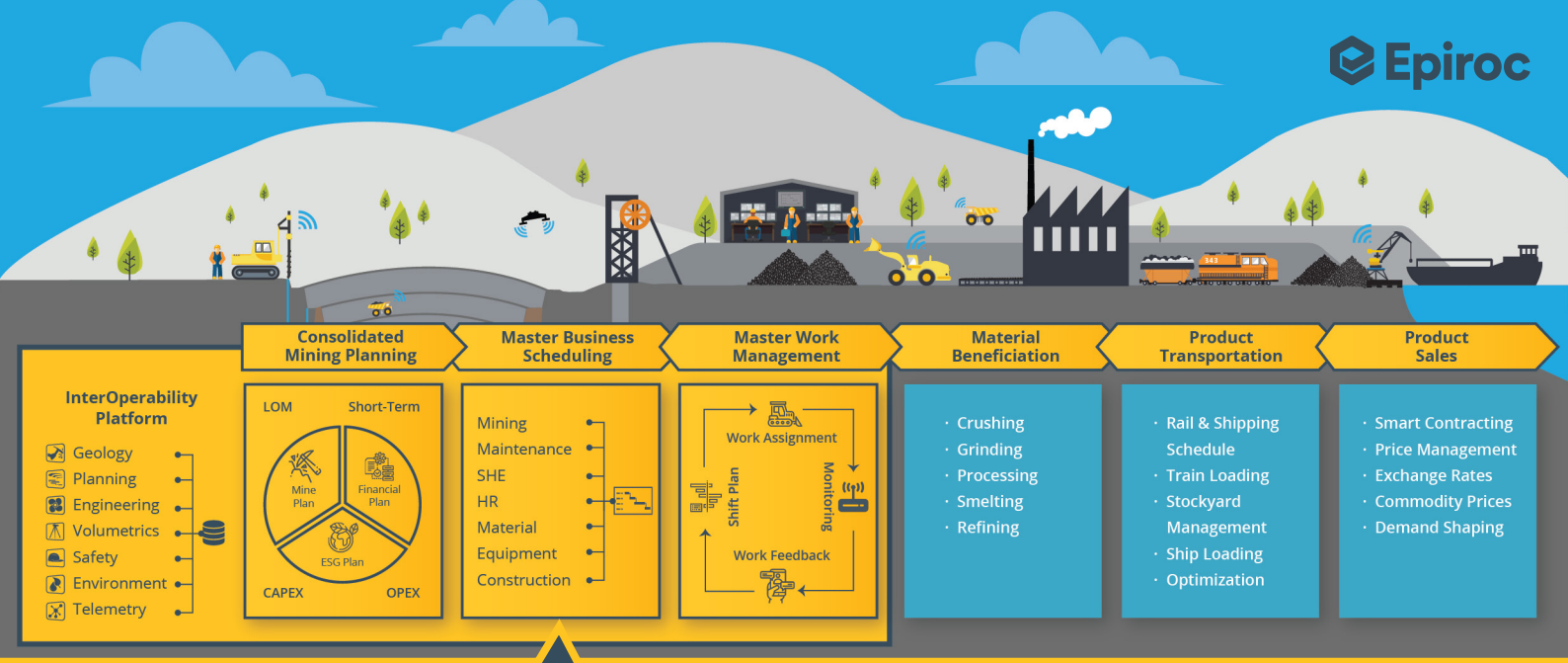- MineRP works for any mining method and mineral

Infused ESG Commitments
- With MineRP, mine planning alternatives can be evaluated and compared against ESG objectives including CO2, Diversity, Governance Guidelines and others
- ESG is not estimated after the fact, but baked in during planning and continuously measured and implemented during execution

Connected Budgets
- Financial plans and budgets both constrain, and are derived from mine plans. With MineRP this reality is reflected in the way that mine plans and budgets are created as two sides of the same plan
- MineRP works with ERP and Financial Planning solutions to create deeply integrated and InterOperable Technical and Financial plans and budgets
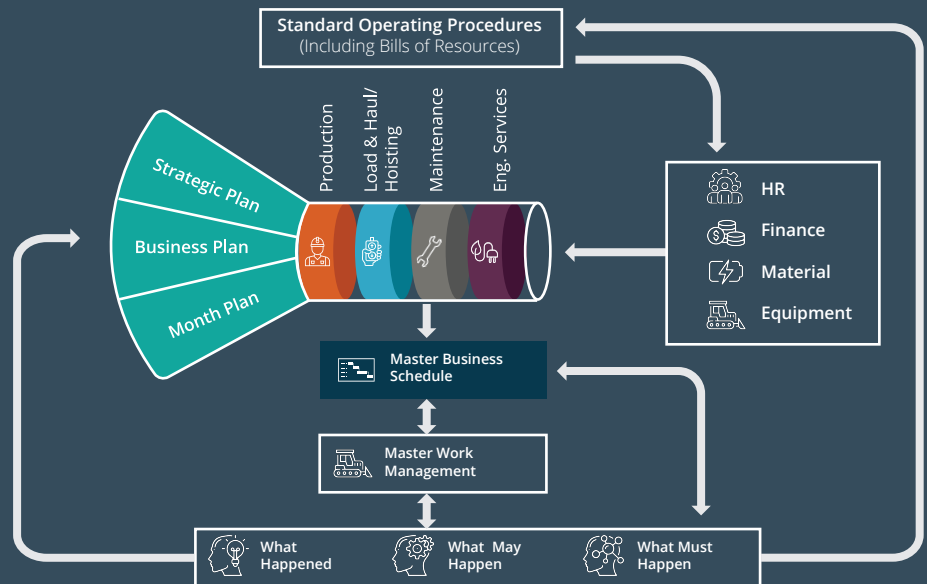
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Align your plans for Efficient Execution

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As much as 80% of all work that happens in the mine does not feature on the production schedule. Efficient execution is impossible without scheduling the supporting activities that make the mine work.

The MineRP Master Business Schedule is the link between your longer-term plans and your execution schedule and ensures cross-discipline collaboration without disrupting individual departments. Optimizing and adjusting the Master Business Schedule to align extraction with short term opportunities can be done without fear of sacrificing alignment between strategy and operations.

Create the best short-term schedule that includes all the work to be done - without changing your current tools.

Standard Operating Procedures (Including Bills of Resources)

Strategic Plan | Business Plan | Month Plan

Production | Load & Haul/Hoisting | Maintenance | Eng. Services

HR | Finance | Material | Equipment

Master Business Schedule

Master Work Management

What Happened | What May Happen | What Must Happen

One Schedule
- Incorporate Production, Maintenance, Logistics and any other schedules into one
- Avoid wasting time waiting for consumables, equipment or supporting tasks to complete
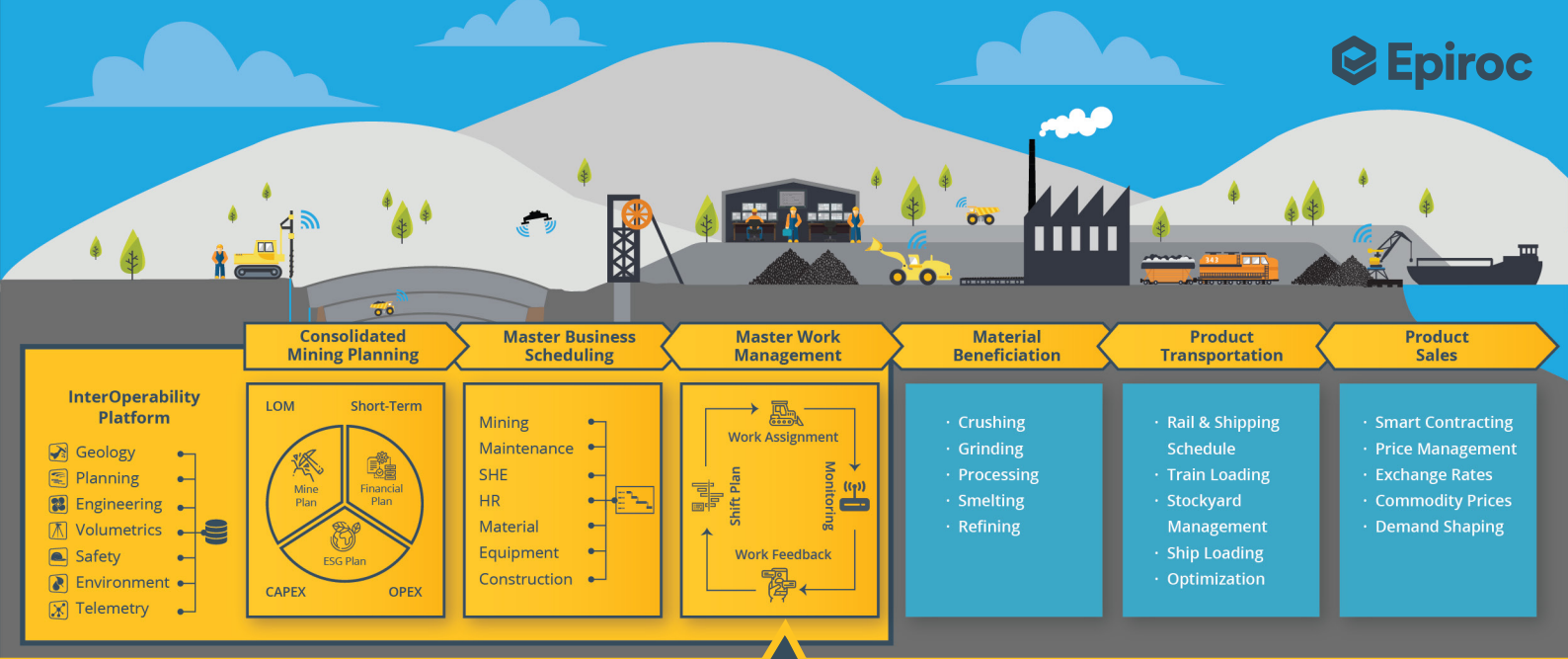
Strategic to Operational Alignment
- Many a short-term plan has sterilized beautiful mining strategies
- Keep your operational activities in line with your long-term goals

Safe, Productive Teams
- Unplanned work is unsafe work. Don't give operations targets without plans
- Reduce conflict between teams by removing conflicts from the schedule

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Real-time Work Management during the Shift

MineRP allows you to effectively plan, orchestrate and track work during the shift. Integrating seamlessly with most fleet management systems and digital execution tools, MineRP's Master Work Manager allows for synchronized execution across production, support and logistical teams.

Fully integrated with the Master Business Schedule, MineRP safeguards alignment and synchronization between operational, tactical and strategic plans and schedules.

Work management is not only about the work of the people and equipment in the mine. MineRP's Master Work Management automates the critical interaction between production and ERP systems that is required to harmonize the flow of materials, consumables and operators, and remove unnecessary waiting time, shortages or unsafe use.

Detailed Shift Plans
- Create detailed work packages for the next shift directly from the Master Business Schedule
- Assign equipment, operators and other resources based on real-time availability
- Automate collaboration with logistics and support teams

Seamless Work Management
- Automate work distribution to Fleet Management Systems, Remote Operations Centers and Shift Supervisors
- Adjust task durations, add new work to the plan, and dynamically manage changes in real time

Continuous Feedback
- Integrate with Operator Feedback tools
- Track and manage resource and consumable availability, movements and delays
- Integrate with machine telematics and IoT platforms

Compliance to Plan
- Use spatial production dashboards and 3D visualization to monitor and measure compliance to plan
- Create automated rules and workflow procedures to actively remove latency from the entire system

Plan, orchestrate and monitor all work that happens during the shift.

Managed work is safe work!