EcoStruxure™
Innovation At Every Level

How can you get the most from your data across the value chain?

Integrated Operations Center for Mining, Minerals, & Metals

se.com/mining

Life Is On | Schneider Electric

75%

of the global workforce will be **millennials** in 2025

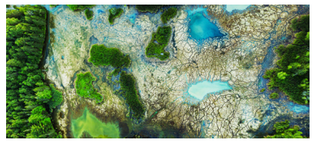
Source: Mckinsey & Company

30%

of management across all industries has **digital** on their agenda

Source: EY

These six challenges are reshaping the future of Mining, Minerals, & Metals



Maintaining a license to operate

New sustainability mandates aimed at reducing carbon footprint are being introduced. Meeting them is key to retaining public confidence in your business.

Tackling CapEx and OpEx constraints

To remain profitable, organizations need to do more with less. Now's the time to re-envision everything from design and integrated planning to operations and maintenance.

Improving value chain responsiveness

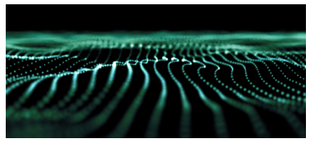
Dynamic market changes and price volatility mean putting pressure on the traditional value chain. More flexibility and connectivity are needed from end to end.

Embracing a workforce shift

The workforce is getting older across the resources industry. Technology is key to retaining knowledge, attracting new talent, and improving gender diversity.

Adopting a culture of innovation

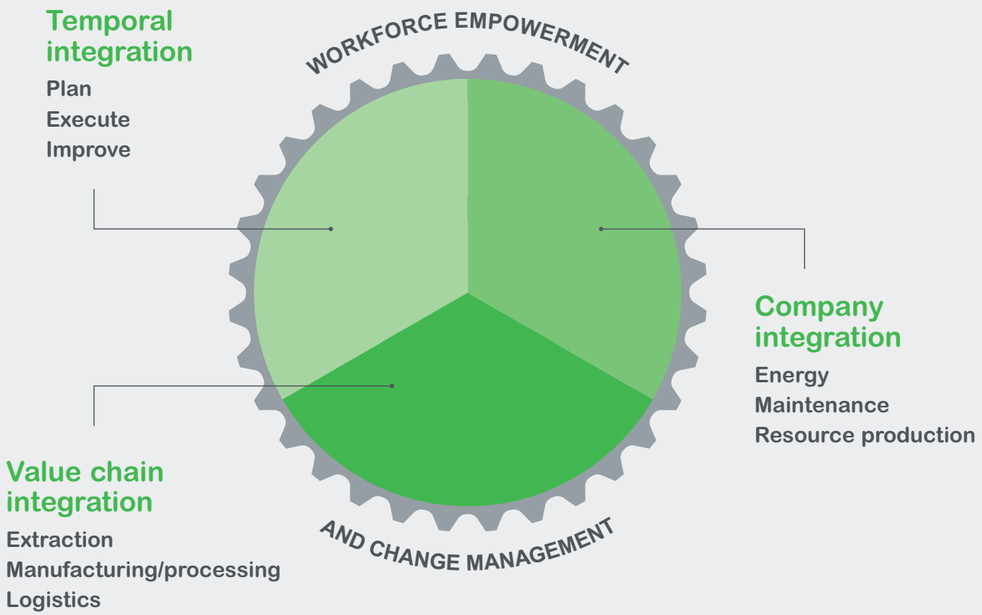
To use data effectively, you have to accelerate the adoption of new technology, innovation, and digital transformation.



Integrating data into every aspect of operations

Multiple fragmented solutions and data need to be integrated to improve remote collaboration.

Integration enabled through digital transformation as a “new creative” solution to rethink mining, minerals, and metals.



Productivity and efficiency enabled by **smart investments** are critical to **sustainable** Mining, Minerals, & Metals in the long term.

Introducing the Integrated Operations Center

Uniting information and action in a collaborative environment, the **Integrated Operations Center (IOC)** is at the forefront of the Integrated Operations Management approach:

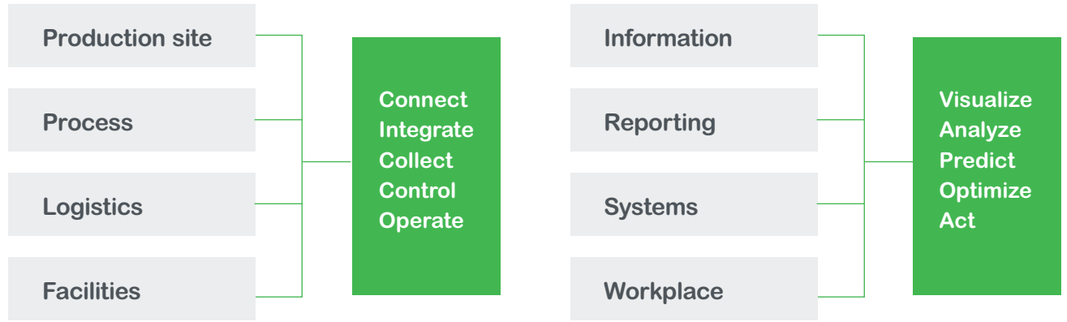
- **An integrated, open, and scalable platform** based on industry-leading technology to manage local and remote assets from a central location
- **An IT, OT, and IoT** systems **command-and-control** solution
- **Operation-wide visibility, closed-loop control, and execution** across planning, operation, process, assets and maintenance, energy and sustainability
- **Integration of power and process** for optimized operation in all spheres
- **One-stop-shop delivery** with lower risk due to industry-proven experience and a template supported approach

Reduce costs, get closer to nameplate capacity, and improve sustainability through flexible and scalable **integrated operations management**.

Improve process and technology **interoperability** through **integrated power and process** for better decision-making and real-time insights.

What does an IOC bring to the table?

An Integrated Operations Center unifies different operational functions into one system, bringing comprehensive benefits.



Improved collaboration

- Better team collaboration, process standardization, and quicker problem resolution across multiple disciplines
- Unification of key power and processes across the value chain for improved decision-making
- Data stored in various systems unlocked to help understand interdependencies and correlations

Optimized production

- Integrated asset performance to minimize production losses
- Production optimization solutions to visualize and analyze production and business KPIs in real-time to get closer to nameplate capacity

Optimized process

- State-of-the-art process automation and advanced process control to reduce process variability and increase profitability
- Effective holistic monitoring to assess target vs. actual operational KPI execution at all levels

Improved asset performance and maintenance

- Lower costs thanks to minimizing maintenance with an integrated and mobile workforce

Optimized process

- State-of-the-art process automation and advanced process control to reduce process variability and increase profitability
- Effective holistic monitoring to assess target vs. actual operational KPI execution at all levels
- Increased asset utilization, and process and personnel safety while reducing risk

Efficient operations

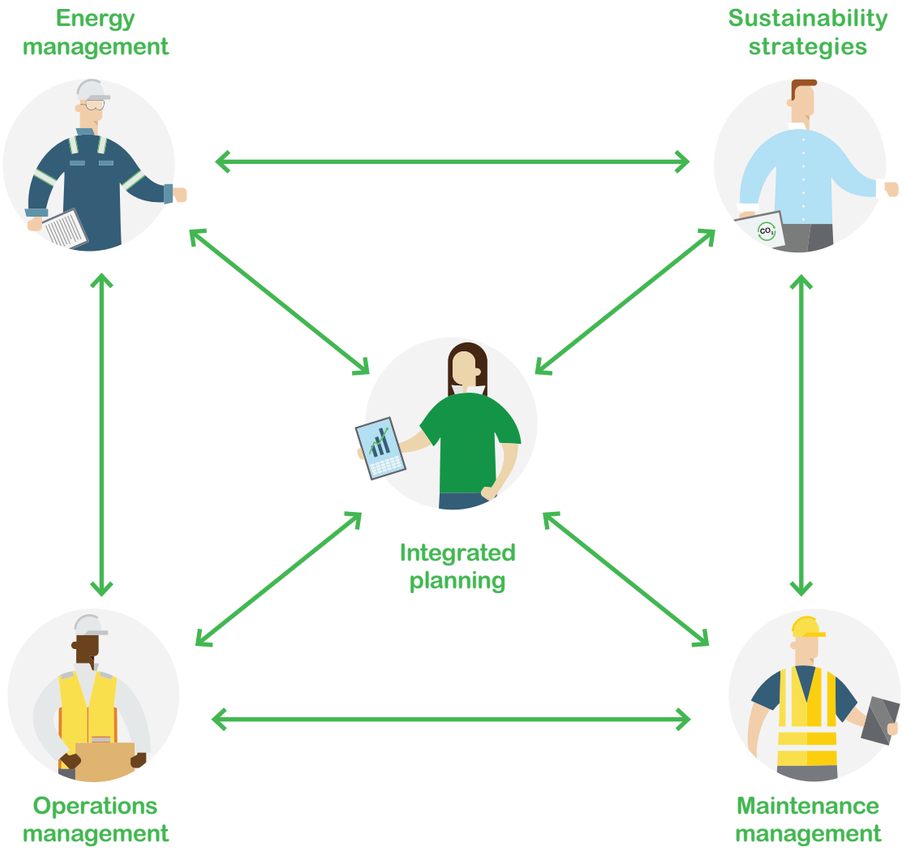
- Improved operational efficiency and optimized production plans defining optimal input/output, and power and process optimization with simulation
- Efficient digitized collaboration and reduction or elimination of manual work processes
- Management of power, process, and sustainability through a tightly integrated system

Enhanced sustainability

- Using less resources by optimizing process and production and minimizing waste and losses

The Integrated Operation Center in action

Enterprise efficiency requires tight integration and close collaboration between departments and systems.



Energy management

Operators have real-time visibility of the health, safety, and performance of the plant's electrical supply and distribution equipment, which helps them to operate equipment at the lowest energy point and reduce outage time by as much as 30%.

Operations management

Visibility into the performance, viability, and efficiency of assets and operations in real-time brings real value. It enables the agile adaption to value chain events based on a single version of the truth and helps create a closed-loop between decision-making, implementation, and monitoring.

Integrated planning

Integrated planning improves demand, supply, and financial planning simultaneously with:

- more effective, efficient, and collaborative problem-solving
- enhanced visibility of your delivery capacity across the entire value chain
- an optimal maintenance strategy to minimize planned and unplanned downtime

Sustainability strategies

An IOC helps you meet the latest environmental regulations by embedding the sustainability aspect in daily operations. This gives you contextualized energy and emission information to identify the best operating points, energy mix, and efficiency improvements.

Maintenance management

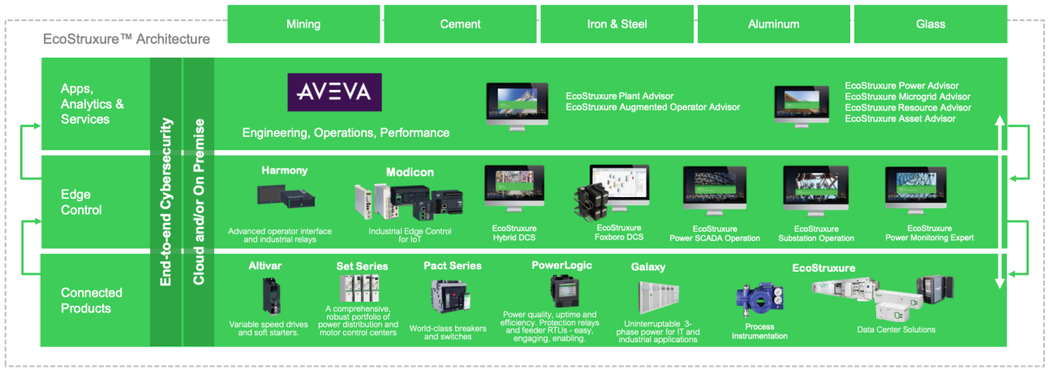
Maintenance managers can optimize asset performance and maintenance through maturity progression, from reactive to preventive, condition, predictive, or risk-based maintenance. This helps maximize value from different maintenance strategies and gain real-time asset status while minimizing business interruption.

Why Schneider Electric?

Schneider Electric, the leader in the digital transformation of energy management and automation, delivers proven industry-specific IoT-enabled solutions that drive operational and energy efficiency in the resources industry. With leading-edge industrial software from AVEVA, we offer a complete integrated portfolio of Connected Products, Apps, Analytics & Services, and Edge Control solutions.

The integration of power and process is the backbone of the Integrated Operations Center, as the solution that unifies the different departments and teams by additional enterprise function integration.

EcoStruxure™ for Mining, Minerals & Metals



fe ls On | Schneider Electric

Maximize stakeholder ROI
through a collaborative digital environment that integrates power and process for efficient and sustainable mining business.

Life Is On | Schneider Electric

Find out more about EcoStruxure for Mining, Minerals & Metals

se.com/mining se.com/metals se.com/cement

Schneider Electric
35 rue Joseph Monier
92500 Rueil-Malmaison, France
Tel : +33 (0)1 41 29 70 00

998-21178984