

mines and **technology**

27th – 29th November, London

The **digital transformation of mining will unlock \$190 bn in value**. This is forcing mining companies to focus their operational investments on **digital** to maximise yield recoveries and improve operational efficiencies.

Mining companies will be investing close to \$50 bn to unlock this value. Mines and Technology is, therefore, the perfect platform to source solutions to future-proof mining companies and drive performance across the industry.

Set to take place in London, 27-29 November 2018, **Mines and Technology** will have **dedicated exhibition showcases and features across 9 critical areas of the digital transformation**.

Confirmed Speakers – Digital Transformation

Phil Baker, CEO, **Hecla Mining**

Dr Ali Soofastaei, Research Developer, Advanced Analytics Center, **Vale**

Ivar Fossum, CEO, **Nordic Mining**

Fredrik Kauma, Project Manager, **Boliden**

Néstor Alemán Esteban, Regional Project Manager - West Africa at Kinross Gold Corporation, **Kinross Gold Corporation**

Murat Tiryaki, Engineering and Innovation Manager, **Yilmaden Holdings**

Thomas Wallmach, Geology, Mining and Mineralogy Expert, **Eramet Group**

Kalev Ruberg, VP Teck Digital Systems and CIO, **Teck**

Stephen Stewart, CEO, **Orefinders**

Phil Hearse, Chairman, **International Graphite**

Robert Mueller, Senior Technologist, Exploration Research and Technology Programs, **NASA**

Thomas Gaisecker, Senior Manager International Sales and Manager Mining & Monitoring Business Division, **RIEGL**

Dr Peter Harrop, Chairman of the Board, **IDTechEx**

Philippa Malmgren, Author, Economist, Leading Policy Analyst and Founder, **H Robotics**

Otto van der Ende, Mining Specialist, MineLens, **McKinsey & Company**

Karen Hanghøj, CEO, **EIT Raw Materials**

Dr. Joseph Quinn, Senior Engineering Geologist, **Klohn Crippen Berger**

Anthony Downs, Principal Consultant, Digital Solutions Group, **Hatch**

Dr Mohsen Yahyaei, Group Leader, Advanced Process Prediction and Control (APPCo), **Sustainable Minerals Institute**

Nick Wilshaw, Director, **CEEC (Coalition for Energy Efficient Comminution)**

James Rogers, President and Director of Global UAV Technologies, **Global UAV Technologies**

Dr Nicolas Jeanne, Natural Resources Solutions Director, **Dassault Systemes**

Alan R Butcher, Research Professor, **Geological Survey of Finland**

Joe Cucuzza, Managing Director, **Amira International**

Chris Calam, Sales Manager, **ThermoFisher Scientific**

Dr Dave Lawie, Chief Geoscientist, **IMDEX**

Robert Hough, Science Director and Deputy Director, Mineral Resources, **CSIRO**

Confirmed Moderators

Robert Bacon, Member of the Board, **IOM3 Mining Technology Division (MTD)**

Professor Patrick Foster, Director of Education, **Camborne School of Mines**

Alan R Butcher, Research Professor, **Geological Survey of Finland**

Daniel Gleeson, Editor, **International Mining**

27th November 2018 – Digital Exploration

Session hosted by **Alan R Butcher**, Research Professor, **Geological Survey of Finland**

09:00 Gaining an edge from the next generation of data analytics - How to leverage existing data, knowledge of geologic formations and advanced analytics to improve exploration success

Stephen Stewart, CEO, **Orefinders**

09:30 How to increase safety, productivity and decision-making through artificial intelligence

Dr Ali Soofastaei, Research Developer, Advanced Analytics Center, **Vale**

10:00 Taking geoscience to the point of drilling - A step change in sensor design and data collection to facilitate exploration decision making through to optimised blasting outcomes

Dr Dave Lawie, Chief Geoscientist, **IMDEX**

10:20 Exhibition Break

11:00 How to maximise deep earth imaging technology to improve image-precision of subsurface rock properties

Joe Cucuzza, Managing Director, **Amira International**

11:30 How to leverage your portable XRF for exploration and grade controls

Chris Calam, Sales Manager, **ThermoFisher Scientific**

11:50 How to implement rapid mineral characterisation to deliver cost-effective exploration and discovery as well as optimising resource management.

Alan R Butcher, Research Professor, **Geological Survey of Finland**

12:20 Session Reserved for Global UAV Technologies

James Rogers, President and Director, **Global UAV Technologies**

12:50 How to improve mineral exploration with new data science driven technologies

Robert Hough, Science Director and Deputy Director, Mineral Resources, **CSIRO**

13:10 Networking Lunch

14:20 **Demo Zone**

Check out the latest products the exhibitors have brought along in this demonstration slot and let the judging panel quiz them on its capabilities!

14:30 Reflex

14:40 Riegl

14:50 Total

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15:00 Hatch

15:10 VRify

15:20 Exhibition Break

15:50 Innovation Groups – The Challenge

1. **Big Data** Innovation Group hosted by RIEGL

The Challenge: On-demand digital terrain data to optimise mine planning and daily operations

2. **Mineral Processing** Innovation Group hosted by CEEC

The Challenge: Optimising energy usage and water management at your mine

3. **Smart Sustainability** Innovation Group hosted by Klohn Crippen Berger

The Challenge: Sustainable Tailings Management and Associated Design

17:00 **Wines and Technology on the exhibition floor**

18:00 **Young Mining Professionals Drinks at The Chapel Bar**

20:00 **Champions League Football Party at the Fox on the Green pub**

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28th November 2018 - Digital Transformation

Session hosted by **Daniel Gleeson**, Editor, **International Mining**

09:00 **IOT Keynote:** How to enable maximum performance of fleets, equipment and people with IOT

Phil Baker, CEO, **Hecla Mining**

09:30 **Artificial Intelligence Keynote:** Practical magic in the mine - artificial realities: Machine learning in haul maintenance, mine route planning and the user experience

Kalev Ruberg, VP Teck Digital Systems and CIO, **Teck Resources**

10:00 **Artificial Intelligence Keynote:** AI, geopolitics and mining – what does the digital future look like?

Philippa Malmgren, Author, Economist, Leading Policy Analyst and Founder, **H Robotics**

10:30 **Next-Generation Networks Keynote:** Examining the tests of 5G networks in mines and the potential benefits for Boliden's operation

Fredrik Kauma, Project Manager, **Boliden**

11:00 Exhibition Break

Session hosted by **Robert Bacon**, Member of the Board, **IOM3 Mining Technology Division (MTD)**

Spotlight 15's with 5 minutes for Q&A!

11:30 **Simulation:** How to leverage simulation technology to improve long-term operational decision making

Otto van der Ende, Mining Specialist, MineLens, **McKinsey & Company**

11:50 **Mineral Processing:** The secret life of ilmenite in heavy mineral sands – A personal review of analytical techniques revealing the comprehensive value of a resource

Thomas Wallmach, Geology, Mining and Mineralogy Expert, **Eramet Group**

12:10 **Big Data:** RIEGL 3D Long Range LiDAR Technology - highly accurate, on demand terrain data for autonomous mine planning and operations

Thomas Gaisecker, Senior Manager International Sales and Manager Mining & Monitoring Business Division, **RIEGL**

12:30 **IOT:** Profound innovation: Fuelled by collaboration

Stephen de Jong, CEO, **VRify Technology**

12:50 **IOT:** The mine of the future

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Anthony Downs, Principal Consultant, Digital Solutions Group, **Hatch**

13:10 **IOT**: Total optimizer – helping you reduce your energy costs by consolidating all of your existing site data into a single digital dashboard

Dirk de Bruyn, Vice President – Global Industry & Mining, **Total**

13:30 Exhibition Break

14:30 **Market Outlook Keynote**: Autonomous vehicles in mining - technologies, challenges, benefits, markets, forecasts, key players and opportunities

Dr Peter Harrop, Chairman of the Board, **IDTechEx**

15:00 **Mineral Processing**: Success through understanding Graphite Secondary Processing Technology

Phil Hearse, Chairman, **International Graphite**

15:10 **Virtual Simulation**: Beyond Industry 4.0: The mining industry renaissance

Dr Nicolas Jeanne, Natural Resources Solutions Director, **Dassault Systemes**

15:30 Exhibition Break

16:00 Innovation Groups – The Feedback

17:00 **Women in Mining Drinks on the exhibition floor**

19:00 **Mines and Money/Mines and Technology Awards Ceremony and Gala Dinner (a separate ticket is required for entry)**

29th November 2018 – Digital Transformation

Session hosted by **Professor Patrick Foster**, Director of Education, **Camborne School of Mines**

09:00 **Next-Generation Networks:** How to ensure your mine sites have reliable, durable and capable communications infrastructure for remote operations

Néstor Alemán Esteban, Regional Project Manager - West Africa at Kinross Gold Corporation,
Kinross Gold Corporation

09:30 **Mineral Processing Keynote:** Yilmaden's engineering and innovation ecosystem – leveraging technology for chromite tail magnetic beneficiation as an output of the ecosystem

Murat Tiryaki, Engineering and Innovation Manager, **Yilmaden Holdings**

10:00 **Out of Industry Keynote:** Space Exploration – The role of technology which makes this more commercially viable and achievable

Robert Mueller, Senior Technologist, Exploration Research and Technology Programs, **NASA**

10:30 **Smart Sustainability Keynote:** How Scandinavian topography offers an innovative approach to mining and tailings disposal

Ivar Fossum, CEO, **Nordic Mining**

11:00 Exhibition Break

Spotlight 15's

11:30 **Innovation:** Innovation and collaboration for a strong European raw materials sector

Karen Hanghøj, CEO, **EIT Raw Materials**

11:50 **Smart Sustainability:** Sustainable practices in tailings dam design: management of liquefaction risk throughout operations and closure

Dr. Joseph Quinn, Senior Engineering Geologist, **Klohn Crippen Berger**

12:10 **Big Data:** How to leverage real-time monitoring and industrial water processing at your mine site

Jaakko Seppälä, Chairman of the Board, **EHP Environment**

Felix Fondem, Director and Member of the Board, **Global Ecoprocess Services**

12:30 **Advanced Process Controls:** Identifying future mineral processing challenges and how to overcome them through innovation and technology

Dr Mohsen Yahyaei, Group Leader, Advanced Process Prediction and Control (APPCo), **Sustainable Minerals Institute**

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12:50 **Mineral Processing: The Future is now** - driving energy down and productivity up through CEEC

Nick Wilshaw, Director, **CEEC (Coalition for Energy Efficient Comminution)**

13:10 Exhibition Break

14:30 Pub Quiz

Hosted by Ellis Martin, Host, **The Ellis Martin Report**

16:30 **Mines and Technology closing drinks on the exhibition floor**