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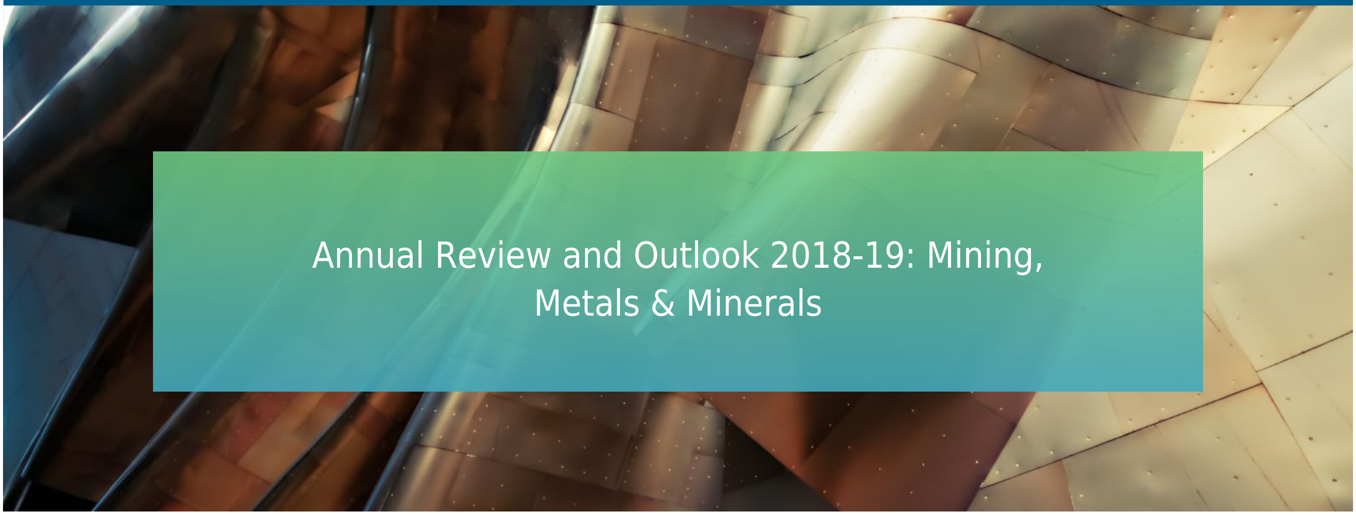
METALS & MINERALS



Annual Review and Outlook 2018-19: Mining, Metals & Minerals

30 JANUARY 2019

Metals and minerals trading started to show promise in 2018 after years of subdued activity and despite the decline in the EMEA coal sector. Mining is showing signs of returning to a growth cycle after almost a decade of stagnation and underinvestment, indicating a coming war for operational and project leadership talent.

Trading

A key trend that confirmed itself in 2018 is mining companies seeking supply-chain optimisation by establishing in-house trading operations. This is driving demand for trading talent interested in joining an asset-long environment over and above the traditional trading companies, where bonuses are the main incentive and where the historic advantage of access to information is becoming less of a differentiator. Companies such as Anglo American and Glencore (following its merger with Xstrata) have been the driving force behind this trend, with other majors now looking hard at getting into the space.

Anglo American’s Executive Head of Base and Specialty Metals Marketing and Sales Alexander Schmitt made the following comments when we asked him about his company’s activity in the trading space: **“Now in its fifth year, our marketing business model maximises value from our mineral resources and market positions. We do this by operating on a truly global basis and by using physical and financial trading and third-party products to fully leverage our marketing platform and broaden our customer offering. Now active across coal, base metals and iron ore, we are making good progress and are proud to be leading this new paradigm within the mining community.”**

The emergence of cloud-based trading platforms serving the metals sector is something we have been watching, with new companies including TradeCloud, Metalshub and Open Mineral showing rapid growth rates. While being another confirmation of the increasing digitalisation of the business, it also reflects the trend of producers moving into trading, with platforms' membership lists featuring some of the big names in mining. Sebastian Kreft, Managing Director and co-founder of Metalshub, tells us that **"Since launching nearly two years ago, Metalshub has seen rapid growth and interest in the platform from all industry players. We are proud to be part of the evolution of commodities trade and look forward to seeing what 2019 will bring."**

The upswing in metals market activity was reflected in increased demand for risk managers in 2018. Demand for trade-and structured-finance talent from banks and trading companies also rose in line with the improvement of market sentiment. We expect these trends in the middle-and back-office space to continue in 2019 as market activity is buoyed by increased demand and mining companies continue to develop their trading operations.

Coal activity in decline
The global coal segment was a mixed picture in 2018. We saw a continued slowdown in hiring in EMEA, with some high-profile trading companies closing desks over the year. While this has happened in response to coal's dwindling fortunes in the region, it creates an opportunity for well-capitalised market entrants. The emergence of groups keen to take this opportunity will drive fresh demand for trading talent.

Demand for coal trading talent throughout Asia-Pacific presents a more stable picture than that in EMEA, with China and India still focused on the fuel as a generation feedstock. But recent price volatility and uncertainty around environmental policy in key markets have caused the departure of some trading talent from the sector. This has created demand for experienced coal operators to fill vacancies, but the outlook for 2019 depends to an extent upon policy decisions around the use of thermal coal in power generation. Australia's generation mix is set to change, with a concerted move away from coal toward LNG and renewables. While coal use is likely to be affected by changes at the policy level, a precise outlook for Australia's generation mix can only follow the federal and state elections in May 2019.

The use of LNG is increasing in Asia-Pacific, with a fleet of new import and export terminals coming online in Australia and China working to increase import capacity by allowing private companies to develop and run facilities. Increased LNG use over the coming years should reduce coal consumption, but China will remain a key market in the medium term. The Indian coal market will also stay viable in the medium term, and notably for Australian exporters. Adani Mining's intention to fund its proposed 60mn t/yr Carmichael mine in Central Queensland is a case in point.

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Mining

The mining sector's economics seem to be improving after 10 years of belt tightening, and companies are preparing for growth. A number of factors confirmed this trend over 2018, including demand for battery metals, increased interest and investment in exploration, the spreading automation of mining operations and majors taking their first steps into trading.

The mining industry has been taken by surprise by accelerated growth in the production of electric vehicles (EV). The big automakers' increased production of EVs is driving a sharp increase in demand for the raw materials used in lithium-ion batteries, with cobalt, lithium, nickel and copper feeling the benefit. Cobalt prices are falling back at present, but they have risen by around 400pc over the last two years, hitting highs not seen since 2008 and causing some battery manufacturers to seek term supply deals. As with many demand-growth stories that are a long time coming, the EV and battery markets reaching critical mass has seemed sudden and mining companies with access to battery metals reserves have come back to the talent market as they expand operations or look to develop new projects.

Though largely focused on battery metals, copper and gold, improved sentiment is being seen across metals markets, and miners are responding to this with increased activity. Exploration budgets could rise by 32% by 2025, according to MinEx Consulting Managing Director Richard Schodde. This growth will create fresh demand for geologists, but it will be challenging for miners to find experienced geologists as the trend continues. Much of the senior talent left the industry over the last 10 years of low activity and graduates have tended to be put off the industry by the effects of the cyclical downturn. We therefore expect demand – and competition – for experienced geologists to be particularly high over the coming year.

Digital skills gap

Big miners continue to focus on optimising production economics. A key factor in this is the spreading automation and digitalisation of the majors' operations, with companies including Anglo American and Rio Tinto leading the way in what is being touted as a revolution for the industry in terms of efficiency and productivity. An important factor to be aware of in light of this development is that it will create a skills gap. The move toward automated, data-driven mining will change the talent profile sought by the majors, greatly increasing demand for candidates able to handle big data and use advanced analytic tools.

Digitalisation will increase in scale and complexity as the trend continues. Automated mining will require bespoke software solutions to be created and maintained, driving demand for full-time software engineers. The second phase of this demand growth will come with the widespread adoption of artificial intelligence (AI), which will give mining equipment the ability to continuously learn and adapt, increasing companies' need for talent with advanced coding skills. A live example of AI making its way into the sector is the recent opening of Vale's AI centre at Vitória in Brazil's Espírito Santo state. The centre, which was two years in the making, houses a 50-strong team that has already generated savings of more than $20mn per year, clearly demonstrating the increased efficiency that AI and digitalisation can deliver.

There is a skills-gap challenge in the AI space, as graduates with the necessary training are proving less likely to gravitate toward mining than to consumer-facing businesses such as e-commerce, where digitalisation is fully embedded. Some miners are working to address this issue through a combination of upskilling and efforts to sell the industry as an exciting prospect to a new generation of talent. We expect demand from the majors to outstrip supply as digitalisation gathers pace.

Mine automation will likely transform the profile of engineers, who will no longer be needed to manage equipment. Engineers will be supported by the data tools used in and around mines, but their roles are expected to shift further in the direction of stakeholder and community engagement, making it necessary for them to have the people skills to translate operational data for local communities and host countries. While this shift is not yet something being seen at scale, it is being prepared for, as the need for a new breed of operations leader is expected to become pressing over the next five years.