



Ministerial Roundtable: **9 January 2024**
Conference and Exhibition: **10-11 January 2024**
Riyadh, Saudi Arabia, King Abdulaziz
International Conference Center

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Newsletter

| November 2023

WELCOME TO THE WORLD'S LEADING FORUM ON THE FUTURE OF MINERALS

His Excellency Mr. Bandar Alkhorayef, Saudi Arabia's Minister of Industry and Mineral Resources looks ahead to welcoming you in January 2024, alongside over 13,000 attendees from more than 145 countries to the Future Minerals Forum (FMF) – the largest multi-stakeholder gathering of its kind in the world.



His Excellency Bandar bin Ibrahim Alkhorayef, Saudi Arabia's Minister of Industry and Mineral Resources.

Welcome to the inaugural newsletter of the world's leading forum for shaping the future of minerals. This will be the third time that we meet and – driven by the successes of our previous forums – our expectations are high for what we will be able to achieve in collaboration with our partners and other stakeholders.

What, then, should you expect from FMF2024?

At the first FMF in 2022, we held the inaugural Ministerial Roundtable, attended by more

than 60 countries who were represented by ministers and high-level officials. There, we established a consensus on the criticality of minerals and metals to the world's future sustainable development and agreed to establish a lasting partnership. I am delighted, therefore, that we will host the third such meeting at the start of this next Forum where we will drive forward with the progress that we made last year.

At the Forum earlier this year, we launched four initiatives to enhance cooperation and coordination in the mineral sector; setting out principles for

creating a super-regional critical minerals framework; developing centers of excellence to help build capacity, accelerating technological innovation across the region; defining the region's own expectations for responsible supply that reflect its stages of development and

local realities; and establishing green metals hubs enabled by new clean energy technologies.

We are part of a super region that wants to create and retain more value locally; to build human capital; to evolve from being rule takers to

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THANK YOU TO OUR FOUNDING PARTNERS



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MINISTERIAL ROUNDTABLE: SETTING THE MINERALS AGENDA

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becoming rule shapers; and to become a hub of responsible production, new technologies and innovation. To that end, at the FMF24 we will explore topics such as creating the Mine of the Future, the transformative technologies that will reshape the industry, how AI and automation will drive the future workforce, and how we can accelerate the industry's future through a tech-enabled transformation.

The Future Minerals Forum has become a voice of the region. I invite you to bring your expertise and be part of creating the minerals industries of the future in the fastest growing part of the world.

The centers of excellence initiative is led by the FMF in partnership with the King Abdul-Aziz City for Science and Technology (KACST). In September this year, FMF and KACST hosted a workshop in Riyadh with experts from around the world to define the scope of work for regional centers of excellence, and develop an executable working plan. The scope covers topics such as individual development, knowledge sharing, data transparency and security, and includes both environmental and social operating licenses. It also includes the mine of the future and how current technologies and innovation are contributing to changing methods of mining. Lastly, it covers the work needed to change the negative perception of the mining sector in the minds of future generations.

I am pleased to say that in January, the KACST and FMF teams will present the plan at our third Ministerial Roundtable, where we will invite participating countries to adopt the framework.

Another initiative to have been launched in 2023 was the establishment of value chains for green metals, supported by modern technologies. Through this initiative, the objective is to identify: the potential future



More opportunities than ever to hear from some of the leading and most senior voices in the metals and minerals industry

60+

countries will be represented by their government ministers and trade delegations at the 2024 Ministerial Roundtable

145

Estimated number of countries attending Future Mineral Forum 2024

value chains that could be developed based on local mining and processing advantages; the critical enabling factors required to develop value chain opportunities, with a focus



on achieving integration in the final stages; and specific opportunities for countries in the region to cooperate in developing regionally integrated value chains.

You can read more on page 6 of this newsletter about the latest progress on these initiatives.

I very much look forward to the insightful discussions that we will have around the table as we work to take these important initiatives forward.

In addition to the Roundtable, the FMF itself will provide more opportunities than ever to hear from some of the leading and most senior voices in the metals and minerals industry.

Many of them have contributed their thoughts in the pages of this newsletter, providing a taste of what we can expect to hear during their speaking sessions and panel discussions in Riyadh.

They cover a diverse range of disciplines and interests,

representing businesses from along the entire minerals value chain. But what they have in common is that each one of them is committed to playing a part in the central purpose of the Future Minerals Forum: creating resilient and responsible mineral value chains in Africa, Western and Central Asia.

The past years' events at FMF have established firm groundwork and encouraged cooperation. As a result, our endeavors this year will persist in setting the stage for future triumphs and a bright future. In essence, we are embarking on a shared journey towards the future for the benefit of our nations.

I hope that these will provide you with even more encouragement to join us at FMF2024 as we bring together governments, businesses and other stakeholders in a truly global conversation about the future of minerals.



FUTURE MINERALS FORUM 2024: FROM TALK TO ACTION

His Excellency Vice-Minister Al-Mudaifer writes that while there will be many hours of insightful and impactful discussion at the FMF, there will also be tangible progress made on bringing plans from the drawing board to reality



We are proud to say that we now have in place the National Geological Database, bringing together more than 80 years' worth of geological and geochemical data

His Excellency Khalid Saleh Al-Mudaifer, Saudi Arabia's Vice Minister for Mining Affairs

In just two years, FMF has grown to become the world's must-go-to forum for shaping the future of minerals. The FMF now comprises two world leading events – a Ministerial Roundtable and a conference. It differentiates from other minerals platforms by being government-led, multistakeholder and action-focused. The FMF is also uniquely focused on the emerging minerals super region covering Africa, Western Asia, Central Asia and South Asia.

Here in Riyadh, our preparations for the Future Minerals Forum 2024 are almost complete and there is a keen sense of anticipation amongst the organising team as we prepare to stage the third edition of this world-class event.

What, then, can you expect of the two days following our Ministerial Roundtable?

As you will see from the agenda, each day of this year's FMF is dedicated to a specific theme: the first day to looking

'Towards an International Critical Minerals Framework' and the second to 'Establishing Pillars of New Minerals Value Chains'.

We will be bringing together our largest ever cohort of speakers to lead discussion on these themes. Our many distinguished speakers represent global and regional businesses and other organizations from across the minerals and mining sector and its value chains, the majority of whom are at CEO-level. Their depth and breadth of expertise is unsurpassed and we know that you will be fascinated, inspired and perhaps even challenged by what they have to say.

The Future Minerals Forum is about much more than simply discussions though, and the afternoon of each day is devoted to ways that we can turn the talk into action.

Alongside other features of the FMF such as the International Exhibition, the Market Place and the myriad

opportunities for networking, the event is a truly multi-dimensional one that reflects how important partnerships and collaborations are in achieving the goals of our super-region.

The work of the Future Minerals Forum continues throughout the year, and as you will have read in His Excellency the Minister's message, in collaboration with the King Abdul-Aziz City for Science and Technology, FMF has been leading work on establishing centers of excellence in the super-region.

As you know, our ambition is for Saudi Arabia to become a global hub for responsible green minerals production and such achievements are helping us to progress with that ambition.

The Vision 2030 program identified mining as the third pillar of industrial growth and provided the framework for us to reform and enhance our mining ecosystem. Leveraging that, we then delivered an environment that facilitates and incentivizes

new investment from all around the world across our entire mining and mineral value chain.

We are proud to say that we now have in place the National Geological Database, bringing together more than 80 years' worth of geological and geochemical data. This will be bolstered by data from the Regional Geological Survey - an extremely detailed map of the Arabian Shield and its rich mineral resources.

These are complemented by a fully revised, world class mining law that is competitive, provides for security of tenure, and is transparent, clear, and progressively embraces ESG principles.

Alongside this, a Mining Sustainability Principle ensures that sustainability is at the core of our mining efforts. It obliges the industry to support the development of local communities and protection of individuals and the environment.

And underlying all of this, empowering our mineral industries is our new National Industrial Strategy. This will help make us central to the world's supply chains and position us as a global industrial powerhouse. Through its projects we will become a primary exporter of hi-tech products to the world as we embrace Fourth Industrial Revolution concepts that leverage artificial intelligence and 3-D printing.

With the Kingdom's rich endowment of natural resources, and prime geographical location, the Strategy will help us to double our industrial exports by 2030 and increase the number of factories from 10,000 to 36,000 by 2035.

This, in turn, will help us to expand our global leadership in select value chain segments with the highest economic and strategic potential.

We recognise, however, that we need to build capacity and that to do so we need collaboration and partnerships.

Therein lies the rationale for our convening of the Future Minerals Forum and why we warmly invite you to join us in the Kingdom of Saudi Arabia in January to explore these mutually beneficial partnerships.



→ FOUNDED PARTNER: MA'ADEN STAND: F01

MA'ADEN AT FMF 2024: LEADING GLOBAL CONVERSATIONS ON MINERALS AND NATURAL RESOURCES

As a founding partner of the Future Minerals Forum (FMF) and a rising global mining powerhouse, Ma'aden is looking ahead to FMF 2024. Reflecting on a transformative 2023, we are excited to share our strategic vision helping to carve out a leading role for Saudi Arabia in the mining world

Unearthing KSA's mining potential
 Ma'aden has cemented its status as the Middle East's premier mining and minerals entity, championing Saudi Arabia's Vision 2030 economic transformation. In just over two decades, we have developed an extensive mining sector in Saudi Arabia in an effort to unearth the Kingdom's estimated \$1.3tn of mineral reserves, driving growth, investment and transformation across the economy.

In this relatively short space of time, we have built a huge operational network in the Kingdom that includes 17 mines; a globally leading phosphate fertilizer production business; and one of the world's largest and most efficient "mine to market" integrated aluminum production operations.

And we don't plan to stop there. We are continuing to develop the Kingdom's mining sector and we plan to make capital investments worth \$66bn by 2040. This will feed the Kingdom's wider economic transformation, creating jobs, growth and opportunity and support development of downstream industries that will power a sustainable future for Saudi Arabia.

Impactful partnerships

This year has seen Ma'aden form



Bob Wilt, Chief Executive Officer of Ma'aden, the Saudi Arabian Mining Company

substantial partnerships with global leaders across the mining industry. At the Future Minerals Forum 2023, we established a joint venture with Ivanhoe Electric to undertake one of the world's largest exploration projects ever conducted in KSA, exploring 48,500 kilometers of land. This has the potential for major new discoveries of copper, nickel, gold, silver and other strategic minerals.

We also strengthened our relationship with Barrick Gold Corporation in the Kingdom to explore and develop the Jabal Sayid South and Umm Ad Damar license areas, enhancing Ma'aden's copper production and supporting economic development in remote areas of the country.

In total, at FMF 2023, we signed 20 agreements and memorandums of understanding with a number of high-profile, market leading organizations to integrate innovative technologies into exploration and mining operations. These include companies such as Nokia, Shell, Bechtel and higher education institutions such as King Abdullah University of Science and Technology.

Key partnerships have enabled us to reach new heights in exploring the Kingdom's mineral landscape and supporting skills and technology transfer which will continue to unlock new opportunities for our mining sector and its partners.

Looking globally

At FMF 2023 Ma'aden also announced the launch of Manara Minerals, a new joint venture with PIF which is investing in mining assets overseas. Manara's investments will support the production of strategic minerals essential for the energy transition, playing a key role in building resilient global minerals supply chains.

And in July, Manara announced its first major deal, acquiring a 10% stake in Vale's Base Metals business. The partnership will support expanded production of copper, zinc, and other key metals, demonstrating Saudi Arabia's global vision as a partner for sustainable growth.

A sustainable future

The sector faces growing global environmental, governance and logistical pressures and it must be primed to meet growing global demand for critical minerals. It must do this sustainably and responsibly.

Sustainability is at the core of Ma'aden's ambitions to grow 10x in size by 2040 and we are investing in green technology and processes that drive forward industrial decarbonization efforts. During FMF 2023 we signed a major agreement with Glasspoint to produce the world's largest solar process steam plant in Ras Al Khair, which will reduce Ma'aden's emissions by 600,000 tons annually.

We are also eliminating the use of extracted underground water in our mines, by connecting our major facilities in the North of the Kingdom to a pipeline of treated sanitary water, ensuring that we care for the natural environment around us.

Join us at FMF 2024

At FMF 2024 we will be joined by leaders from across the global minerals sectors. Ma'aden and Saudi Arabia will be at the centre of discussions on how to catalyze global growth and build resilient mineral supply chains. We hope the event will contribute to sustainable solutions for the sector at a critical time and we invite you to join us in shaping the future of minerals and natural resources.



MINISTERIAL ROUNDTABLE: A GATHERING OF GOVERNMENTS FROM THE MINERALS SUPER REGION AND BEYOND

The **Future Minerals Forum's** third Ministerial Roundtable – the largest-ever gathering of its kind, which is aimed at envisioning sustainable mineral value supply chains for the future – will take place on **9 January 2024**. This high-level meeting is an important launchpad for this year's FMF and will see Ministers and other senior national decision-makers setting the agenda for what will follow over the next two days of discussion and planning

At the previous Roundtable, ahead of the FMF 2023 edition, the event brought together more than 60 governments and delegations from the super region covering Africa, Western and Central Asia. Also present were more than 20 international organizations, including multilateral organizations, industry associations and NGOs.

The 2024 meeting is expected to see an even larger gathering of senior representatives meeting to define areas for collaboration. Below, you can find a list of the countries confirmed to be sending a delegation to the Roundtable.

The Ministerial Roundtable is a government-led platform, created by Saudi Arabia, for seeking to work together to produce the minerals the world will need for the energy transition. It brings together some of the super regions' most eminent government representatives to further regional collaboration on the sustainable development of the minerals and mining industry. At the Roundtable they will discuss the huge untapped potential of this emerging area and explore how critical minerals can become a major development driver in their countries.

The super region is broadly defined as 80 countries with vast endowments of minerals



required for the energy transition, food security and economic development.

This area not only has the world's fastest growing population, but also one of the fastest economic growth rates and access to capital.

It is also a region at the geographic center between East and West and will play an important role in the production, processing, manufacturing and trading of critical minerals to ensure reliable and responsible global supply.

The previous Ministerial Roundtable in January 2023



highlighted the need to turn talk into action in four areas, and this latest meeting will take those discussions forward in terms of:

- Development of a regional critical minerals framework to enable the creation of resilient and responsible value chains, secure the energy transition and foster industrial development in producer countries.
- Capacity building through the creation of centers of excellence (virtual, physical or hybrid) in the super region covering Africa, Western and Central Asia.
- Development of a sustainability framework for the region that is fit for purpose based on transparency and certification of supply chains. This will place sustainability, transparency and accountability at the heart of responsible mineral development and will help to overcome any existing negative societal perceptions of mining, helping to attract investment.



■ Creation of green metals hubs and value chains in the super region to enable

the energy transition and provide food security. These will leverage the

region's mineral endowment for industrialization and development and will be enabled by new technologies and powered by renewable energy sources. At the meeting, attendees will explore intra-regional opportunities to establish minerals-specific value chains and financing.

As an important step forward in turning ideas into reality, also present at the FMF 2024 edition of the Roundtable will be leading experts from the King Abdul-Aziz City for Science and Technology (KACST). There, they will present the outcome of a workshop held with a range of authoritative voices to define the scope of work in these four areas and develop an executable working plan for the development of centers of excellence (CoEs) to become part of minerals strategies in the region.

A NEW GLOBAL VOICE

The Ministerial Roundtable brings together more than 60 nations, represented by their government ministers and trade delegations responsible for the minerals and metals development of their countries.

Past Participants include:





→ FOUNDING PARTNER: **ESNAD** STAND: **FO4**

EMPOWERING SAUDI ARABIA'S MINERALS INDUSTRY THROUGH DIGITALIZATION

With its futuristic vision for the mining sector and its digitalized services, ESNAD is excited by the many opportunities afforded by the Future Minerals Forum of which it is a founding partner

While mining itself is one of the oldest industrial activities on earth, the digitalization of the mining industry is gathering pace, leveraging emerging technologies like artificial intelligence (AI), Machine Learning, Remote sensing, and robotics to improve efficiency, productivity and safety. This is enabling mining companies to optimize their operations across the value chain, from exploration and extraction to processing and transportation.

In line with these modern approaches to mining, ESNAD is using digitalization to better serve investors, attract investment, promote the Saudi Arabian mining sector, and ensure financial and regulatory compliance.

ESNAD - the executive arm of the Ministry of Industry and Mineral Resources - was established following the launch of Saudi Arabia's national mining strategy and is one of the main pillars in enabling the mining sector. Its vision is to empower the sector to build an attractive investment environment, and thereby contribute to promoting sustainability.

The organization provides services and solutions to develop mining investments, maximize their added value, and enhance financial, environmental, and community commitment to achieve sustainable development.

It improves the investor journey by digitizing the licensing processes and



adopting modern technologies; supports and improves competencies in the sector, engaging the community, and professionalizing it; promotes investment and attracts investors, providing transparency about the sector's performance; and enables a new mining investment system that enhances law enforcement and financial compliance, increases the effectiveness of control procedures, and creates a professional environment.

Specifically, ESNAD's digital services include:

■ **Licensing Services**

The Mining Platform includes a set of digital services that contribute to providing an integrated digital experience. The Platform aims to provide an integrated digital experience by enabling investors to complete mining sector procedures through a unified platform.

The goal of developing the Mining Platform is to provide an innovative digital environment

that is the primary source of data and procedures related to the mining sector by providing a live database of all services, information and data to support investors and include AI Prediction for Final Decision Making

■ **Inspection Services**

The Inspection Platform includes a set of services that contribute to meeting the requirements of compliance with approved standards. The Platform aims to provide digital tools supporting the sector by automating inspection processes according to approved standards and models, which positively reflects on investors, commitment to regulatory requirements.

The Platform relies on specific and accurate models that help the supervision sector easily perform inspection operations and improve the quality of work by providing accurate and transparent data for investors.

■ **Financial prediction Analysis**

■ **Bank Guarantee Services**

A set of services contribute to automating bank guarantee procedures. The services facilitate procedures for issuing and cancelling bank guarantees by activating integrated electronic linkage with the financial sectors, issuing bank guarantees easily and securely.

The services contribute to providing digital integration with the banking sectors instantly, directly, securely, and positively reflecting on the reliability of data with the speed of its provision to the sector to accelerate the adoption process.

■ **Geographic Information Services**

The Geographic Information service contains all the details and supporting data for the mining sector. The service includes managing all the detailed geographic data linked to the mining sector, reflecting the mechanisms for managing mining complexes and areas allocated to investors, and managing historical data.

The Geographic Information service contributes to verifying the approved locations of the mining complexes in addition to the historical data of the investors, which helps in identifying mining areas and the effectiveness of investment in the mining sector.

■ **Modern Technology Services**

Modern technology services contain a range of digital solutions that contribute to facilitating supervision work, financial compliance, and processing license applications. Modern technology techniques include satellite images, drones, and financial data analysis and decision prediction to provide faster, more accurate and more efficient services, contributing to improving the quality of services and work.

Modern technology services contribute to improving the quality of work, the accuracy of data, and accommodating a larger scope of supervision and inspection work, and accelerating accreditation procedures through financial analysis and requests.

Find out more about the work of ESNAD at FMF24.


 → SPEAKER: **EDUARDO BARTOLOMEO**

A UNIQUE SET OF CONDITIONS TO SUCCESSFULLY DEVELOP INTEGRATED HUBS

Eduardo Bartolomeo, CEO of Vale, explains why one of the largest global mining companies is working with KSA on proposals for an industrial complex that could supply low carbon footprint products for steelmaking



The world cannot reach decarbonization targets without significant changes in steelmaking. More than 70 countries committed to net zero targets, and steelmaking represents 8% of global CO2 emissions. Over US\$ 1 trillion investments are required to decarbonize the steel industry, and this process will most likely happen in steps.

As one of the world's biggest iron ore producers, Vale is actively contributing

to the efforts to decarbonize steelmaking by seeking innovative downstream solutions. In our commitments to flight climate change, we have pledged to reduce our absolute scope 1 and 2 emissions by 33% by 2030 and achieve net zero by 2050, as well as using 100% renewable energy in our operations globally. Additionally, we have committed to reduce 15% of net scope 3 emissions by 2035.

We are working alongside our clients and forging new

partnerships to take the lead in the evolution process towards ever more sustainable mining. Vale has already signed more than 50 MoUs with clients to develop decarbonization solutions, which account for 35% of the company's scope 3 emissions.

In this regard, we are glad to be studying alongside the Kingdom of Saudi Arabia the feasibility of developing in the country an industrial complex to produce low carbon footprint products to the steelmaking industry.

We are seeking to cooperate in the development of this industrial complex, which we call the Mega Hub, to produce hot briquetted iron (HBI) and steel products to supply the market with significant reduction of CO2 emissions. We are also studying the development of such complexes in Brazil, in Oman and in the UAE.

We strongly believe that the Middle East, with its competitive energy prices, strategic location, and entrepreneurial mindset, has a unique set of conditions to successfully develop these integrated hubs.

 → SPEAKER: **PETAR OSTOJIC**

BRIDGING THE ATACAMA DESERT TO THE SUPER REGION

In the expansive minerals super region, spanning from Africa through the Middle East to Central and East Asia, Latin America's mining industry, led by trailblazers like Neptuno Pumps, plays a critical role in sustainable mining practices. Operating from the Atacama Desert in Chile—the driest place on Earth—Neptuno Pumps not only confronts unique sustainability challenges but also actively contributes to the green minerals value chains. As an expert in industrial pump design and manufacturing, the company robustly champions circular economy principles to boost efficiency and mitigate environmental impact. This deep-seated commitment

to sustainability is further illustrated by the establishment of the Center of Innovation and Circular Economy (CIEC, by its Spanish acronym), a center of excellence dedicated to fostering sustainable and circular mining practices.

CIEC, viewing the circular economy as a catalyst for sustainable economic growth, high-quality job creation, and decarbonization, actively addresses capacity gaps in Latin America and beyond. Collaborating with mining companies and suppliers, it fills the void in specialized knowledge of sustainable mining through targeted training and research, equipping professionals with



skills for effective, sustainable, and circular mining methods.

The center also tackles the challenge of limited access to advanced sustainable mining technologies, especially those aligned with Industry 4.0. As an innovation hub, CIEC facilitates access to these technologies and promotes international collaboration among academia, the mining industry, and governments. This approach integrates Industry 4.0 principles to propel sustainable mining practices forward.

Furthermore, CIEC leads in formulating best practices for environmental conservation and community engagement, essential for responsible

mining with minimal ecological impact. This aligns with the industry's broader goal of enhanced environmental stewardship. Through these collaborations, CIEC is setting new benchmarks in sustainable mining, demonstrating the sector's dedication to environmental and social responsibility.

The synergy between Neptuno Pumps, CIEC, and leading mining companies in the dynamic Latin American mining environment serves as an exemplary model for the global minerals super region. By addressing key capacity gaps with centers of excellence like CIEC, we aim to inspire and steer sustainable mining practices globally, showcasing how responsible mining can harmonize economic growth with environmental sustainability.

Petar Ostojic is Founder and CEO of the Center of Innovation and Circular Economy and CEO of Neptuno Pumps



WHAT IS THE FUTURE MINERALS FORUM?

The Future Minerals Forum (FMF) is a government-led, multistakeholder, action-focused initiative, where governments, businesses and other stakeholders from Africa, West and Central Asia, and the rest of the world, come together to enable the development of responsible minerals value chains

The Future Minerals Forum (FMF) is a government-led initiative, where governments, businesses and other stakeholders from Africa, West and Central Asia, and the rest of the world, come together to enable the development of responsible minerals value chains. It has clear goals:

- To enable the development of responsible minerals and metals industries in the region by attracting investment, deploying digital and other advanced technologies, and applying high standards for sustainability performance
- To place the region at the center of a global conversation on the future supply of critical and strategic minerals

The government of Saudi

Arabia created the FMF as part of its efforts to expand sustainable mineral and metal exploration, extraction and exploitation in the Kingdom and around the world in ways that benefit everyone:

- The geological opportunities are great for governments, miners and investors.
- The economic development opportunities are great for countries across Africa, and West and Central Asia.
- The potential is great for adding new, responsible mining jurisdictions to serve the world's growing mineral needs.
- We have a great chance to build a mining sector committed to strict environment, social and governance (ESG) criteria and transparency.

The mineral super-region stretching from Africa to

Central Asia is home to vast, untapped mineral resources that can help meet future demand and create new investment opportunities.

- 79 countries, covering 33% of the world's land.
- Home to >45% of the world's population, yet contributes just 11% of global GDP.
- Highlights the need to accelerate economic development, with large implications as both a commodity supplier and goods producer to global markets.

But there are challenges:

- Few regional champions.
- Infrastructure - roads, rail and ports.
- Financing - access to capital for exploration and mine development.
- Talent - mining is not attractive to many young people.

■ This region has high prospectivity but spending per sq km is well below global average.

We have opportunities to collaborate on a range of areas including:

- Developing the skills our young people need to take up the many jobs to be created from minerals and metals industries.
- Financing the development of entire value chains from exploration to manufacturing.
- Leveraging our combined expertise in minerals and hydrocarbon extraction to create centers of excellence to drive innovation and develop future talent.
- Enabling a regional conversation on maximizing the benefits from our collective mineral endowments, by establishing minerals and metals value chains that have local communities at their heart, and ultimately increase the quality of lives around mining operations.

The FMF will promote discussion with countries of the super region on the need to develop strategies for critical minerals used in low-emission technologies, including the establishment of a strategic framework based on agreed principles to ensure the stability



and sustainability of mining supply chains.

At the FMF's second Ministerial Roundtable in January 2023, an initiative was launched to develop regional strategies for critical minerals to meet the expected supply gap due to the high demand for these minerals in the manufacture of low-emission technologies, such as EVs, batteries and clean energy solutions.

Its objectives are:

- To develop a strategic framework founded on agreed principles to ensure stability and reliability of supply.
- To support the global industry scale-up of production to meet demand for the material-intensive energy transition with affordable and sustainable green materials.
- To partner in developing, long-term opportunities locally and globally to close the supply gap.
- To build resilient integrated critical mineral value chains in the super region encompassing Africa, Western and Central Asia.

The FMF will host conversations between countries in the super region to develop standardized regional ESG practices and adapt legislative frameworks to meet regional needs, enabling regional players to adhere to those practices.

The second Ministerial Roundtable also saw the launch of an initiative to support the development of international standards for the sustainability of the minerals sector.

Its objectives are:

- Working to change negative societal perceptions about metals to attract investments, obtain licenses, and produce the metals required for the energy transition.
- Standardizing approaches to ESG practices regionally while adapting legislative frameworks in line with regional needs to enable regional players in the mining sector to adhere to those practices.
- Removing obstacles to investments in new projects and expansions in the value chain by enabling the regional mining sector to meet ESG needs, and



enhancing the supply of metals from responsible sources.

- Partnering with third-party ESG certification agencies to leverage international best practices and expertise.

The FMF is embracing the development of regional centers of excellence by presenting a model for these centers that will contribute to workforce development, access to capital, and innovation.

Another initiative launched at the 2023 Ministerial Roundtable was the development of centers of excellence to become part of minerals strategies in the greater region.

Its objectives are:

- To establish centers of excellence in the region to increase their contribution to future mineral supplies, workforce development, access to capital and innovation.
- To strengthen regional cooperation in knowledge and technical transfer.

This initiative is being implemented in cooperation with the King Abdul-Aziz City for Science and Technology (KACST). In September 2023, KACST held a workshop with experts to define the scope of work for regional centers of excellence, develop an executable working plan, present it at the third Ministerial Roundtable, and invite participating countries to adopt the framework.

The scope of work covers:

- Individual development
- Knowledge sharing



The mineral super-region stretching from Africa to Central Asia is home to vast, untapped mineral resources that can help meet future demand and create new investment opportunities.

79

countries are in the super region which covers 33% of the world's land

>45%

of the world's population lives in the super region, yet it contributes just 11% of global GDP

- Data, transparency, and security
- Operating licenses (environmental and social)
- The mine of the future and how the current technology revolution and innovation contribute to changing current mining methods
- Changing the negative stereotype of the sector in the minds of future generations

The Future Minerals Forum, in collaboration with countries in the super region and global experts, will identify potential future value chains for green minerals that leverage local mining and processing advantages, supported by modern technologies.

The fourth initiative launched at the second Ministerial Roundtable was the establishment of value chains for green metals, supported by modern technologies.

Its objectives are:

- To identify the potential future value chains that could be developed based on local mining and processing advantages.
- To identify the critical enabling factors required to develop value chain opportunities, with a focus on achieving integration in the final stages.
- To identify specific opportunities for countries in the region to cooperate in developing regionally integrated value chains.

Find out more at <http://www.futuremineralsforum.com>



FUTURE MINERALS FORUM 2024: AN OVERVIEW

Venue: Riyadh, Saudi Arabia, King Abdulaziz International Conference Center

The Future Minerals Forum (FMF) is an initiative by Saudi Arabia's Vision 2030. The Kingdom aims to develop mineral supply chains to make mining the third pillar of the Saudi industry by taking advantage of its mineral resources, domestic demand, and taking advantage of global markets to diversify the GDP and job growth.

2,000 confirmed delegations from **113 countries** to date

In just two years since being established by Saudi Arabia, the FMF has become a global platform shaping the future of minerals by enabling the creation of resilient and responsible mineral value chains.

105 speakers from **61 countries** confirmed to date

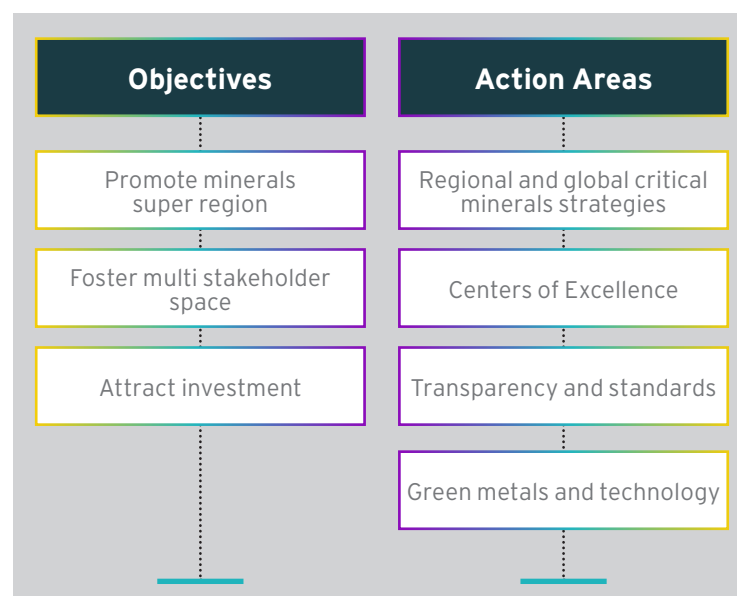
FMF is positioned as a future minerals platform for the super region - with the Kingdom at its center - that covers Africa, Western and Central Asia and has vast mineral and development potential.

117 exhibitors and sponsors from **31 countries**

This super region of 79 countries is a future minerals heartland with growing human capital and market.

FMF is an impact-driven platform, facilitated by Saudi Arabia's Ministry of Industry and Mineral Resources (MIM), which generates initiatives, year-long engagement and thought leadership.

The Ministerial Roundtable is a strategic forum, a key differentiator and influential platform for FMF, providing a voice for the region internationally.



Turning talk into actions by progressing initiatives arising from the Ministerial Roundtable, underscores the impact of FMF beyond the annual gathering and attracts greater interest from global leaders, including investors.

Thousands of opportunities created through knowledge exchange, bilateral trade and commerce

Significant achievements at prior editions of the FMF include the signing of over 60 agreements, including a joint venture between Ma'aden and the Saudi Public Investment Fund (PIF). This developed into Manara Minerals, providing investment opportunities for mining assets globally, while securing strategic minerals essential for Saudi Arabia's economic development and global supply chain resiliency.



→ **SPEAKER: EMILIE BODOIN**

BUILDING NEXT-GEN BATTERY INDUSTRIES FROM THE GROUND UP

Pure Lithium's CEO Emilie Bodoïn discusses the challenges and opportunities for establishing green metals value chains and how can they be achieved in the region

Although KSA has neither a battery materials supply chain nor a battery industry, it has a unique opportunity to transform its economy across the entire green metals value chain, becoming leaders in next-generation battery production. This presents a tremendous opportunity to build both industries from the ground up, integrating them from day one and learning from industry's mistakes.

Battery value chains are disjointed, complicated and have a myriad of geopolitical complexities. The recent Chinese announcement tightening export controls for graphite has emphasized the urgency of governments developing their own green metals value chains

and battery production capacity. But to build a localized supply chain requires a plethora of natural resources and, most importantly, inexpensive battery technology that is safe and tailored for local climates.

This region holds several advantages: abundant reserves of minerals crucial for green metals production; a robust financial sector; and a government committed to supporting the green economy with intent to deploy. However, challenges exist: lack of infrastructure to produce battery materials; lack of know-how; and no suitable technologies. Working with Pure Lithium will help KSA overcome



can be unlocked with Pure Lithium's Brine to Battery™ technology, producing a lithium metal battery electrode – a full component for a next-generation battery, rather than the 40-year-old Lithium-ion

these challenges and accelerate the development of green metals value chains.

Pure Lithium's pioneering and innovative battery technology surpasses traditional batteries in energy density, cost-effectiveness, and environmental impact, requiring no cobalt, nickel, manganese or graphite. KSA has lithium present in oilfield brines that

battery - in just one day! KSA also has vanadium, which is used as a cathode material in Pure Lithium's battery. Working together, Saudi Arabia can access cutting-edge battery technology, leveraging it to establish new green metals value chains.

For more information, visit www.purelithium.io.

→ **OUTDOOR EXHIBITOR: IVANHOE ELECTRIC** STAND: **M05**

TECHNOLOGY EXPERTISE WILL UNLOCK KSA'S SIGNIFICANT MINERAL ENDOWMENT

During Future Minerals Forum 2023, Ivanhoe Electric and Saudi Arabian Mining Company Ma'aden announced the formation of a groundbreaking 50/50 joint venture (the "Joint Venture") to explore for minerals on a vast area of the Arabian Shield in the Kingdom of Saudi Arabia. The Joint Venture, the first of its kind in Saudi Arabia, will deploy Ivanhoe Electric's proprietary and powerful Typhoon™ geophysical surveying system over ~48,500km² of underexplored lands. Typhoon™ was developed specifically to

identify deep geophysical anomalies in environments that have highly resistive surface conditions, such as those seen in Saudi Arabia. Typhoon™ is ideal for deep surveying where the bedrock is hidden by sand and gravel cover that can exceed one kilometer in depth.

Ivanhoe Electric's subsidiary, Computational Geosciences Inc. ("CGI") utilizes complex, proprietary machine-based learning software to interpret the large datasets generated by Typhoon™ and provides three-dimensional models to assist in drill target identification. The

combination of Typhoon™, CGI and the expertise of Ivanhoe Electric's and the Joint Venture's local exploration team will support one of the largest geophysical surveys for minerals ever conducted in Saudi Arabia. Ivanhoe Electric is proud to partner with Ma'aden to unlock the significant mineral endowment of the Kingdom of Saudi Arabia, and to find new sources of critical minerals required to support the global energy transition and Vision 2030.

Ivanhoe Electric delivered the first Typhoon™ system into Saudi Arabia in October 2023, and initial surveys



are underway. Three new generation Typhoon™ systems will be delivered to the Joint Venture during the first half of 2024. Ivanhoe Electric is pleased to announce that one of its Typhoon™ systems will be on display during FMF 2024, at Ivanhoe Electric's stand #M05, located outside the King Abdulaziz International Conference Center.

Ivanhoe Electric is proud to be the Technology Sponsor for FMF 2024.

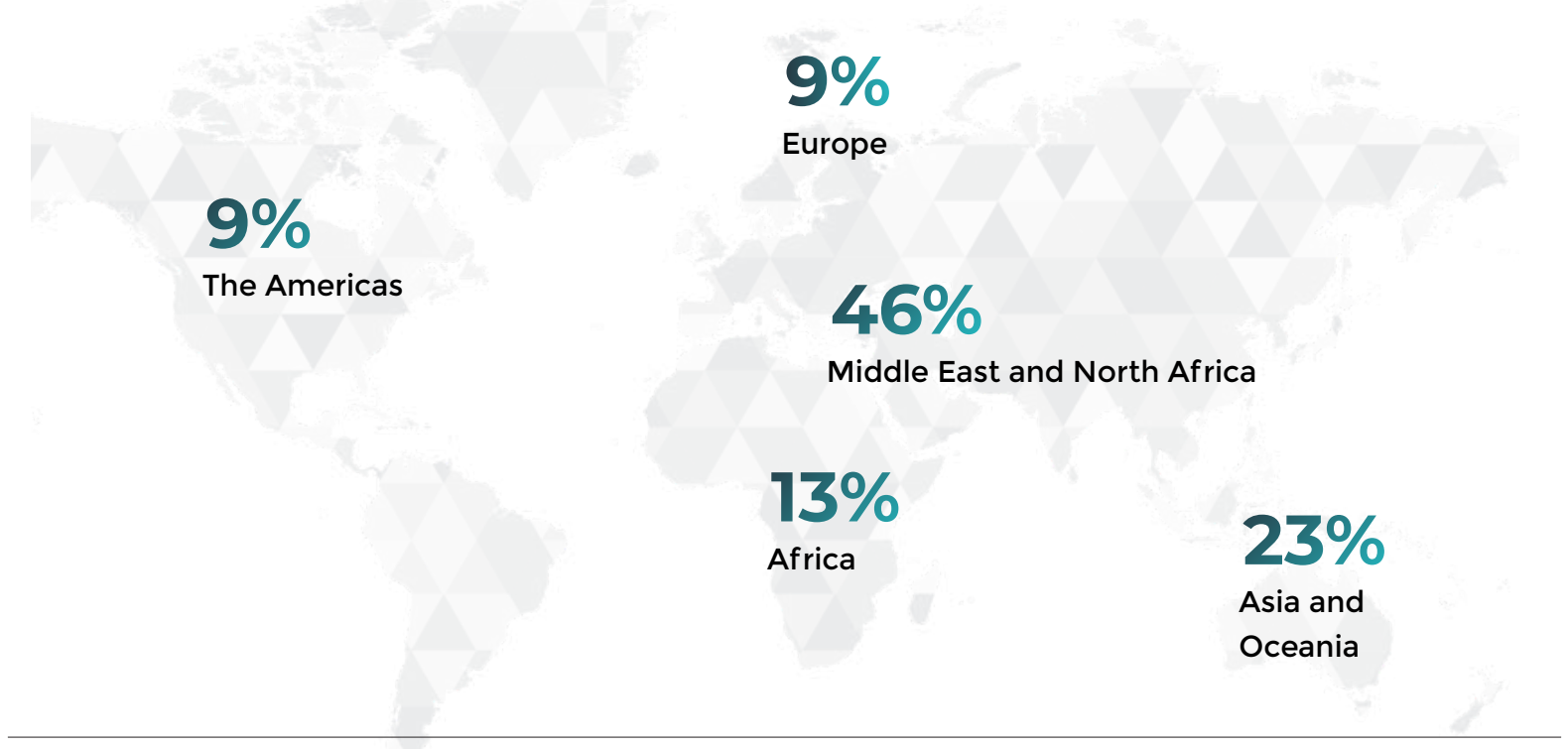


THE FIVE PILLARS OF FMF 2024

At FMF 2024, speakers and panels will focus primarily on five pillars: investment in metals and mineral production; critical mineral strategy development; promoting responsible mining; developing centers of excellence; and developing green value chains.



MORE THAN 9,000 CONFERENCE DELEGATES CONVERGE IN RIYADH FROM OVER 145 COUNTRIES



NETWORK WITH KEY DECISION MAKERS AND INDUSTRY LEADERS

Attendee Profile



Attendee Sector





SOME OF THE MOST SENIOR FIGURES IN METALS AND MINING WILL SPEAK AT FMF



H.E. Mohammed Al Jadaan
Minister,
Ministry of Finance



H.E. Bandar Al Khorayef
Minister,
Ministry of Industry and
Mineral Resources



H.E. Saleh Al Jasser
Minister,
Ministry of Transport and
Logistic Services



H.E. Khalid Al-Falih
Minister,
Ministry of Investment



H.E. Yousef Al-Benyan
Minister,
Ministry of Education



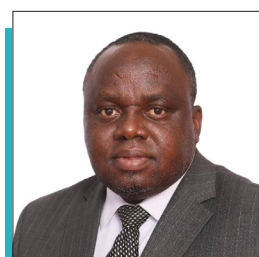
H.E. Yasir Al-Rumayyan
Governor,
Public Investment Fund
(PIF)



H.E. Khalid Al-Mudaifer
Vice-Minister for Mining
Affairs,
Ministry of Industry and
Mineral Resources



**H.E. Eng. Khalid
Mohammed Al-Salem**
President,
Royal Commission for
Jubail and Yanbu



H.E. Paul Kabuswe
Minister of Mines and
Minerals Development,
Zambia



**H.E. Antoine
N'Samba Kalambayi**
Minister of Mines,
DRC



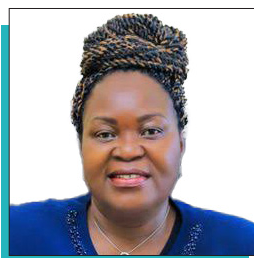
H.E. Dele Alake
Minister of Solid Minerals
Development,
Nigeria



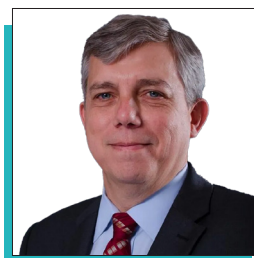
H.E. Dr Abdirizak Omar
Minister of Petroleum
& Mineral Resources,
Somalia



Samuel Jinapor
Minister of Lands and
Natural Resources,
Ghana



**Hon. Dr. Ruth
Nankabirwa Ssentamu**
Minister of Energy and
Mineral Development
Uganda



Eduardo Bartolomeo
Chief Executive Officer,
Vale



Stuart Chambers
Chairman,
Anglo American



FMF: A TRULY INTERNATIONAL MINERALS AND METALS EXHIBITION

Alongside the many illustrious speakers and panellists from the global minerals and metals sector who will contribute to its influential agenda, Future Minerals Forum hosts a unique trade exhibition. This is held in tandem with a number of other features and business lounges providing networking opportunities for the many thousands of professionals attending the FMF.

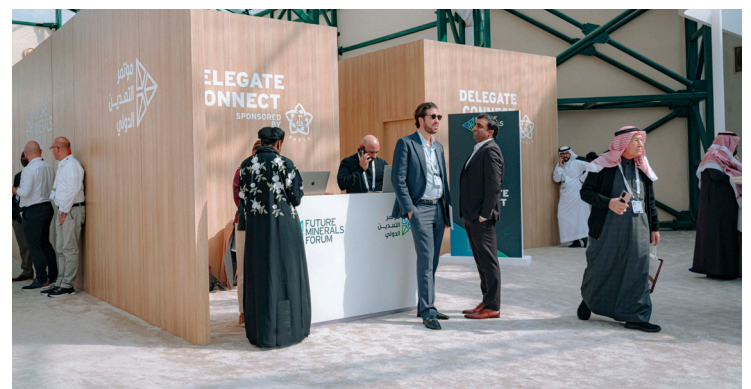
The exhibition bridges thought leadership with solutions across the entire minerals value chain. It provides a dual opportunity for enablers and innovators of change to drive specialized conversations in a hands-on environment where exhibits include some of the most

cutting-edge technologies and innovations in the minerals and mining industry.

Our aim is to provide thousands of professionals working in the region of Africa, Western and Central Asia with a unique platform to gain insight into advanced solutions and technologies from leading international organizations.

These contributions are essential for ensuring a resilient supply of minerals across all phases, from exploration and extraction to the downstream manufacturing and distribution sectors.

We look forward to warmly welcoming you as you join us at the King Abdulaziz International Conference Center (KAICC) in Riyadh for this truly international minerals and metals gathering.



Reasons to Exhibit

- 1

By exhibiting, you join a select number of organizations showcasing live, innovative products and solutions to an engaged audience of pre-approved key decision makers in one exclusive space.
- 2

The event is the first of its kind government led initiative, committed to driving innovation, creating value and helping the value chain to thrive.
- 3

FMF attracts delegations from 145+ Countries and in excess of 9,000+ senior attendees of unrivalled quality, under scoring the delivery of the highest return on your investment
- 4

Exhibiting optimizes your participation and presence in three super regions with rich mineral endowment. Invite and welcome your prospects and potential business partners to showcase your offerings.
- 5

The influential and thought leadership conference agenda and ministerial summit connect the world of minerals and metals and the exhibition brings together all backgrounds and interests providing a wealth of networking and learning opportunities.
- 6

A focused exhibition space to ensure visitors navigate around the event and easily locate your solutions - delivering direct business to your booth.

Venue Map



- A

Minerals Super Region Hall
- B

Marketplace
- C

Responsible Future Minerals Theatre
- D

Green Metals Theatre
- E

Lands of Opportunity Theatre
- F

Gold Sponsors Zone
- G

Silver Sponsor Zone
- H

International Exhibition
- I

Sponsors Mining Lounge
- J

VIP Lounge
- K

Platinum Sponsors Zone
- L

Mineral Exploration Zone
- M

Mineral Tech Zone
- N

Information Desk
- O

FMF TV Studio
- P

International Agreements and MOUs
- Q

Outdoor Exhibition
- R

Mineral Cafe
- S

Speakers Lounge
- T

Outdoor Café Area
- U

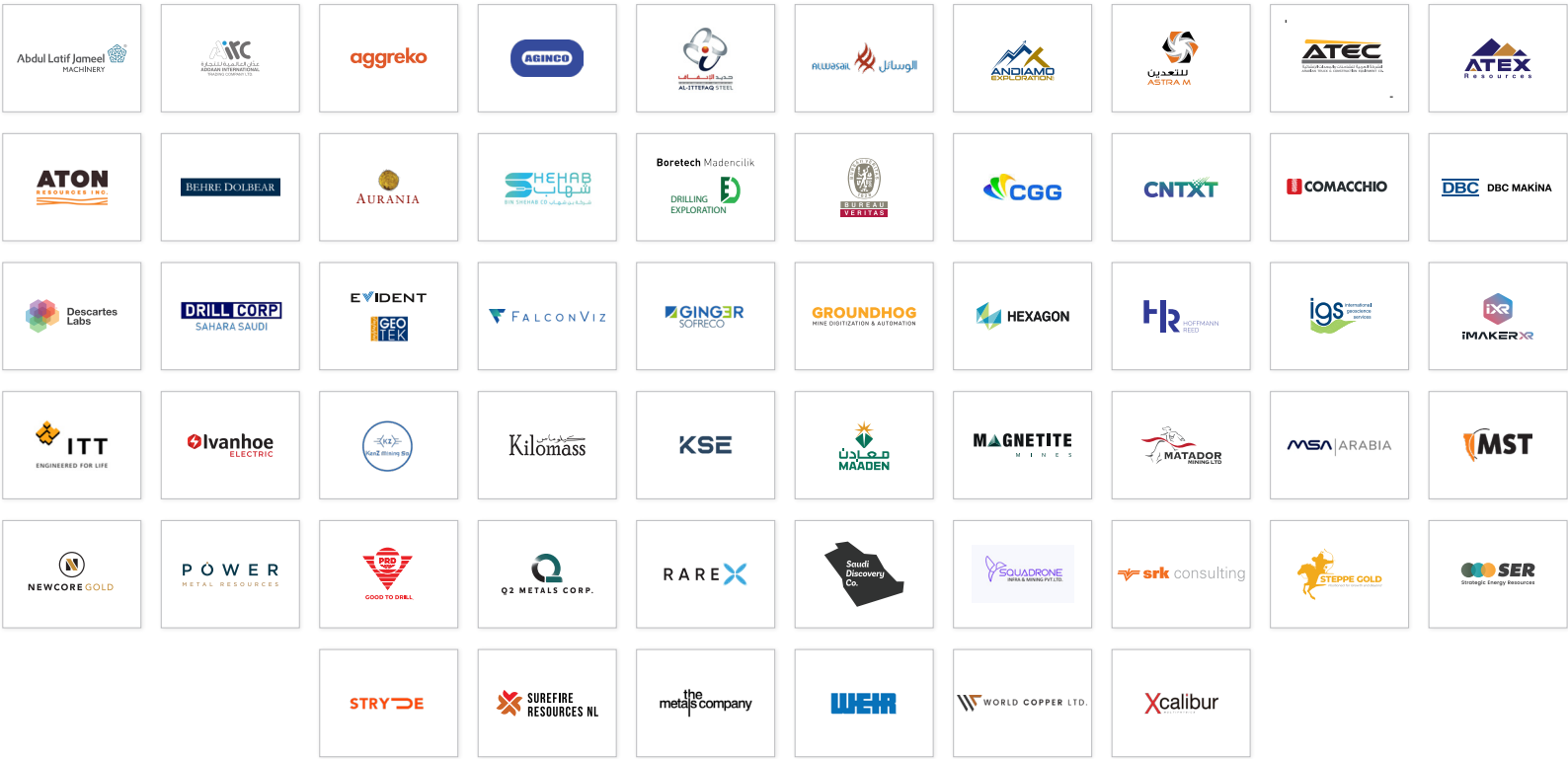
Registration
- V

Delegate Entrance
- W

Main Entrance
- X

Delegate Connect Lounge

Early Confirmed Exhibitors Include



TO RESERVE A BOOTH FutureMineralsForum.com/bookastand


→ STRATEGIC PARTNER: **EURASIAN RESOURCES GROUP** STAND: **P15**

EXPLORATION REDEFINED IN THE KINGDOM OF SAUDI ARABIA

Eurasian Resources Group (ERG) is a global metals and mining company with integrated exploration, mining, processing, energy and logistics operations to supply critical minerals for the global energy transition.

In the Kingdom of Saudi Arabia, ERG is taking an active role in redefining exploration practices - driven by innovative, efficient and sustainable exploration technologies developed and implemented by highly-skilled people from diverse backgrounds. In 2022, ERG initiated a USD 50 million upfront investment to help build a local ecosystem to accelerate research and development, minimize environmental impact and



advance the next generation of exploration methods.

Core to ERG's mission is building partnerships to create a more sustainable and responsible sector. To promote this ongoing evolution, it is working closely with decision-

makers, governments, research and higher learning institutions to elevate the region as a global mining and technology leader. ERG works collaboratively with stakeholders in its host countries to develop strategies, build long-term skills and uplift

local economies. In the last year, ERG in the Kingdom, worked closely with local educational institutions to start the long-term process of skills and knowledge transfer.

At the Future Minerals Forum 2024, ERG will be introducing its novel smart exploration robot - the NOMAD. In line with the Kingdom's Vision 2030, the NOMAD will accelerate early exploration efforts, while reducing the environmental impact on the complex terrains of the region.

Knowing that the future supply of critical materials can only be achieved through collaborative efforts, ERG is looking forward to utilizing the platform offered by the Future Minerals Forum to explore additional partnerships with actors across all spheres and sectors who share its passion to achieve an energy transition that is responsible, sustainable and exciting, while delivering broad-based socio-economic benefits and upliftment.

→ STRATEGIC PARTNER: **WORLEY** STAND: **P16**

HELPING SAUDI ARABIA BECOME THE WORLD CENTER OF ENERGY TRANSITION MINERALS

A new age of mining is dawning, and Saudi Arabia stands to benefit.

The growing demand for energy transition materials comes at a key time for Saudi Arabia, as it undergoes the most significant and economic transformation in its history. However, mining's future will look very different from what we see today. Emerging technologies, mega trends, and social expectations will transform our mining practices.

The industry needs new thinking

Visions are being set. But charting these future pathways

will take sustained effort.

Worley has completed more than 4,430 energy transition projects across the world. We combine our mining experience with our digital expertise, sustainability and new energy to help our customers find the most economic solutions to reduce emissions while unlocking new supply.

Our Saudi Arabia office

For almost 50 years, we have provided world-class consulting, engineering, procurement and construction expertise. Our 2,000-strong team is committed to Vision 2030 to diversify the economy by mining and refining



materials into high value products.

Playing a role in Saudi Arabia's next industrial revolution

Ma'aden recently awarded Worley and Morocco's JESA International the first phase of its Phosphate 3 project. The integrated greenfield complex aims to generate 1.5 million metric tons of phosphate fertilizers a year. The project consists of the design and construction of new process plants in the cities of Wa'ad Al Shamal and Ras Al-Khair. Implementation will take place

through Worley's offices in Saudi Arabia and India, and JESA's facility in Morocco.

With deposits of crucial materials for the energy transition beneath the surface, we believe Saudi Arabia can diversify its economy and supply an entirely new set of customers focusing on decarbonization. And it can fast-track carbon neutrality by supplying the vital resources from the Tethyan belt to the world.

We are proud of history in Saudi Arabia, and are proudly supporting Future Minerals Forum 2024.


 → STRATEGIC PARTNER: **TASNEE** STAND: **SP02**

TASNEE: GLOBAL INVESTOR IN THE TITANIUM METALS VALUE CHAIN

The National Industrialization Company (Tasnee) is the first Saudi industrial joint stock company wholly owned by the private sector.

Established in 1985 with the aim of advancing the economic diversification of Saudi Arabia, Tasnee has a wide range of interests in petrochemicals, chemicals, plastics, and metals manufacturing, industrial services and environmental technologies. As one of the largest industrial and petrochemical companies in Saudi Arabia and one of the largest global investors in the titanium value chain, we are recognized for our wide experience, skills, efficiencies, state-of-the art technologies and innovative

solutions that add value to our products and services worldwide. Achievement of our corporate Vision and Mission across these diverse companies requires incorporating three core aspects of sustainability; environmental, health, safety and security, social responsibility and corporate governance.

Advanced Metals

Tasnee is developing and investing in the titanium metals value chain in the Kingdom. It aims to contribute to developing local talent and localizing these strategic technologies and industries in KSA, serving as the backbone of Saudi Arabia's aviation, aerospace and advanced industries and



enabling Vision 2030.

Advanced Metal Industries Cluster Co., Ltd. (AMIC) was established jointly by Tasnee and Cristal in 2014 with a mandate to develop the titanium value chain in the Kingdom. AMIC has established AMIC Toho as a JV with Toho - Japan, which has an annual production capacity of 15.6k tons of titanium sponge. The company has also established

the Advanced Smelting Industries Company (ASIC), which has a titanium smelter in Jazan with an annual capacity of 500k tons of titanium slag and 250k tons of pig iron.

Tasnee's initiatives in sustainability and the circular economy

Tasnee is one of the leading companies in recycling, having many initiatives in the circular economy. It cares for the environment and sustainability to achieve the pillars of Vision 2030 by improving quality of life and protecting future generations. Tasnee seeks to increase energy efficiency, rationalize water usage, and reduce emissions. The company also seeks to reach net-zero carbon emissions by 2060.

 → STRATEGIC PARTNER: **ZAHID TRACTOR CMD** STAND: **SP01**

ZAHID TRACTOR: YOUR PARTNER IN MINING EXCELLENCE

At Zahid Tractor CMD (Construction Machinery Division), our unwavering commitment to the mining industry in the Kingdom is evident in the state-of-the-art products, exceptional services and benefits we deliver. As a premier provider of CAT Mining Machines, we are strongly committed to ensuring our clients' success by maximizing fleet uptime, reducing operational costs, and minimizing environmental impact.

Dedication to Collaborative Partnerships

Our clients are more than just customers; they are our partners in the pursuit of mining excellence. We

continuously invest in expanding our capabilities to meet their evolving needs. Our team of highly trained and well-versed specialists collaborate closely with clients, both operationally and corporately, fostering a mutually beneficial relationship that supports mining site operations and optimizes production.

Embracing Cutting-Edge Solutions

While we will not be showcasing our cutting-edge technology solutions at this year's FMF, we do understand, consider and recommend the latest technological advancements in order to enhance clients' mining operations. We are committed



to staying at the forefront of innovation to provide the best solutions to our clients.

Projects and Success Stories

Our involvement in significant projects demonstrates our commitment to excellence:

■ Project A

In 2023, we successfully delivered a fleet of 25 CAT Mining Machines for a major (private sector) project in the Kingdom, with more units planned for the future. Our close collaboration with the site's team ensures optimal productivity.

■ Project B

We currently supply and service one of the largest mining fleets in the Kingdom, consisting of over 40 CAT machines. Our proactive

maintenance planning, facilitated by regular communication with our client, minimizes downtime. We go above and beyond by providing embedded technicians and well-stocked parts consignments.

■ Project C

In a key region of Saudi Arabia, we support one of our clients by maintaining a substantial fleet of CAT machines on their site; the fleet consists of 30 machines. We are currently finalizing a comprehensive framework agreement to facilitate their future expansion and optimize productivity.

At Zahid Tractor CMD, we are more than just a supplier; we are a dedicated partner committed to helping our clients achieve mining excellence, while also helping our Kingdom achieve its Vision for the sector. Our commitment to exceptional service, the integration of cutting-edge technology, and our track record of successful projects underscores our dedication to the mining industry.



→ STRATEGIC PARTNER: **ARAB BASALT FIBER COMPANY** STAND: **SP03**

ARAB BASALT FIBER COMPANY: PIONEERING SUSTAINABLE CONSTRUCTION SOLUTIONS

At Arab Basalt Fiber Company, we are at the leading edge of sustainable construction. We specialize in manufacturing basalt fiber reinforced polymer rebar (BFRP Rebar), catering to the pressing needs of the global civil and industrial construction industries.

At the Future Minerals Forum, Arab Basalt Fiber Company is excited to exhibit our state-of-the-art BFRP Rebar technology—a testament to our commitment to environmental responsibility and engineering excellence. This advanced material is designed to combat the corrosive effects of time and nature, offering an expected service life that surpasses



a century with minimal maintenance needs, making it the perfect choice for projects with stringent longevity and sustainability requirements.

Our technology is not just innovative; it is transformative. The BFRP Rebar is a product of careful research and strategic use of the region's rich basalt deposits, aligning with the UAE's National Strategy for Industry and Advanced Technology.

By leveraging this abundant natural resource, we provide an environmentally friendly alternative to traditional steel reinforcement—markedly reducing CO2 emissions and energy consumption during production.

BFRP Rebar contribution to infrastructure projects around the world illustrates the practical benefits of this products. BFRP Rebar has been integral in the construction and reinforcement of critical structures—from the arterial roads that withstand daily traffic strains to hydraulic installations that manage essential water resources. Each project benefits from enhanced structural integrity, resilience to environmental factors, and a

significant reduction in carbon footprint.

Incorporating BFRP Rebar has provided remarkable benefits, such as longer structural lifespans, reduced maintenance costs, and enhanced sustainability profiles. By integrating cutting-edge basalt fiber products, these projects stand as beacons of innovation, durability, and environmental responsibility.

Through our participation in the Future Minerals Forum, we are launching a new standard for sustainable construction practices. We invite industry leaders and stakeholders to join us in embracing the potential of basalt fiber technologies for a greener built environment.

→ STRATEGIC PARTNER: **TOSYALI HOLDING** STAND: **SP14**

GLOBAL GREEN STEEL PRODUCER TOSYALI HOLDING

Global green steel producer **Tosyali Holding** is taking firm steps towards its goal of becoming one of the world's 30 largest steel producers with more than 30 facilities on 3 continents and 15,000 employees

Tosyali Holding continues to grow as a global green steel producer with its value-added production in accordance with sustainability criteria and exports to more than 100 countries with approximately 15,000 employees in more than 30 facilities on 3 continents.

Tosyali Holding, which ranks 77th among the world's crude steel producers in 2022

according to the World Steel Producers Association data, is taking firm steps towards its goal of becoming one of the world's 30 largest steel producers with its investments in Algeria, Senegal, Angola and new investments in the Gulf countries, which it has recently focused on.

In addition to Tosyali's iron and steel production facilities in Turkey, one of its biggest investments is in



Algeria. Tosyali Algerie, one of Algeria's largest industrial facilities, is Algeria's largest industrial organisation and exporter in non-hydrocarbon sectors. Tosyali Algerie is the largest and most technologically advanced integrated facility in the Mediterranean and Africa with a total of 10 facilities and a fully integrated port, the largest in Algeria. Tosyali Algerie, which has the world's largest DRI production facilities with an annual capacity of 2.5 million tons and the world's largest arc furnace operating with DRI, achieved another success by

breaking consecutive world records in production with a single DRI module in 2020 and 2021. Last year, Tosyali Algerie started construction of a new state-of-the-art DRI plant and rolling mills that will produce flat steel with a capacity of 4 million tonnes/year. This plant, which will be one of the best practices in the world steel industry with a lower carbon footprint, will also be capable of operating on 100% hydrogen.

Tosyali, which also owns a special economic zone in Senegal, the gateway to West Africa, continues its efforts to operate the iron mines in the Kassinga Region in Angola, which has one of the largest reserves in the country. With the project to be carried out in this region, which has 2 billion tonnes of iron ore reserves, Tosyali aims to start with 4-5 million tonnes per year and reach an iron ore processing capacity of 10 million tonnes in a short time.

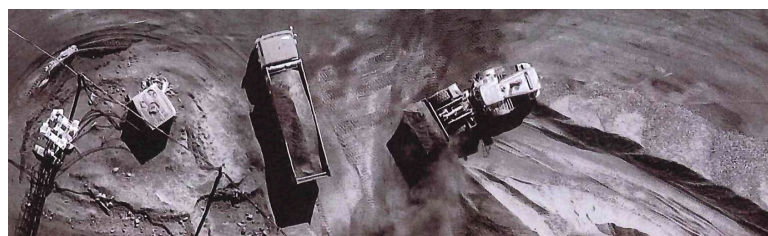

 → STRATEGIC PARTNER: **AJLAN & BROS HOLDING** STAND: **SP07**

MINING INVESTMENTS THAT POSITIVELY IMPACT KSA ECONOMY AND SOCIETY

Ajlal & Bros Holding was established to invest in a diversified portfolio of projects across Saudi Arabia's key economic growth sectors.

Supporting the modernization of the Kingdom, it is contributing to making the mining and metal sector the third pillar of industry in Saudi Arabia. Investments have a positive impact on Saudi society and positive contribution to the economy as per Vision 2030.

The Holding will invest \$14 Billion with the National Industrial Development and Logistics Program (NIDLP) over the next ten years, has already signed multiple JVs with the world's leading players in the Mining and Metals Industries sectors, and continues to attract foreign direct investment.



MINING AND METALS INVESTMENTS

■ Khnaiguiyah & Moxico

Khnaiguiyah Zinc Project is an advanced stage Zinc and Copper project located 170km west of Riyadh. Ajlan & Bros-Moxico Consortium's bid of US\$68 million, in the first-ever multi-round auction for a Saudi mining license, was recently announced as the winning bid for Khnaiguiyah. The consortium is progressing with the project and engaging with local communities

and beginning the construction and development of mining operations.

■ Precious Metals & Valcambi

Valcambi and Ajlan & Bros Mining is building a state-of-the-art refining facility in Saudi Arabia for precious metals and Platinum Group Metals (platinum, palladium, rhodium and iridium) with capacity of 250 tons annually.

■ Mining Cooperation & Chieffing Jelong

Ajlan Mining and Chieffing

Jelong have started exploring for gold and associated minerals on several licenses within the Kingdom, as well as considering additional mineral applications.

■ Mining Cooperation & Norinco Manufacturing Company

Ajlan Mining and Norinco have agreed to co-operate on exploration and mining activities throughout Africa, as well as several opportunities within KSA.

■ Establishing zinc and copper smelters

Ajlan & Bros Mining and Moxico Co. started feasibility studies for establishing zinc and copper smelters at Yanbu. The project will produce zinc and copper metals with a capacity of 200KT/Y of zinc and 100KT/Y of copper.

 → STRATEGIC PARTNER: **AL MASANE AL KOBRA MINING COMPANY** STAND: **SP06**

AMAK: A REGIONAL LEADER IN BASE AND PRECIOUS METALS

The Al Masane Al Kobra Mining Company (AMAK) looks forward to attending the Future Minerals Forum in 2024, and continuing to play its part in creating resilient, responsible mineral supply chains.

Founded in 2008, AMAK is one of Saudi Arabia's leading miners of copper, zinc, gold and silver and is registered and licensed by the Kingdom's Ministry of Industry. It has an exploration license area of around 1,000 km², of which 52 km² is covered by a mining license.

AMAK has capital of SAR 900,000,000 and in March 2022 implemented an IPO, successfully listing the company's shares on the Saudi stock market.

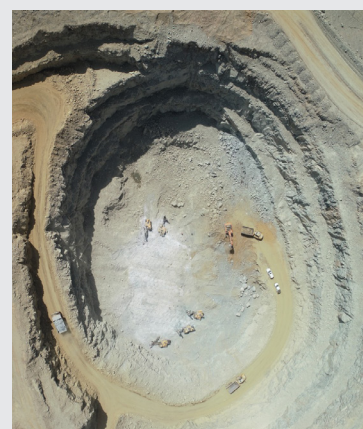
The company began commercial production of copper and zinc concentrates in 2012 and started producing gold and silver doré from its Al Masane underground mine in 2018.

Al Masane, at Najran in the southwestern region of the Kingdom, includes three mineralized zones - Saadah, Al Houra and Moyoath - with an estimated 9 million tons of reserves.



In 2020, AMAK constructed its Guyan gold mine and processing plant with the first smelting taking place in January 2021. There are an estimated 3 million tons of reserves at Guyan.

The company is expanding its activities, having implemented the Moyoath orebody development project to enable increased production at Al Masane. This project



was inaugurated by HE Prince Jiluwi bin Abdulaziz bin Musa'id in Aug 2022. It is expected that the commissioning phase will begin at the end of Q4 2023, with initial commercial production beginning during Q1 2024.

This newly constructed plant project will increase AMAK's base metal production expected to increase Zn by 80% and Cu by 40%.


→ STRATEGIC PARTNER: **FOULATH HOLDING** STAND: **SP11**

RESPONSIBLY MEETING THE GROWING NEED FOR STEEL

Steel is one of the most common materials in the world today, but it is inevitably linked with economic growth. From smart cars to smartphones and skyscrapers to oil pipelines, steel is a multi-functional component that shapes our lives. Therefore, it is not surprising that steel consumption is widely taken as an indicator of economic development.

Established in 2008 in the Kingdom of Bahrain, Foulath Holding is an investment company dedicated to the sustainable development and growth of the steel industry in the Gulf Cooperation Council countries and the broader Middle East, and North Africa (MENA) region.

Foulath operates one of the largest fully integrated single-site steel complexes in the world, covering 1.7 million

square meters, complete with port and jetty facilities. It oversees more than US\$2.4 billion of assets through its subsidiaries - Bahrain Steel and SULB. Producing annually over 12 million tons of high-quality DR grade iron ore pellets and more than 1 million tons of structural steel, Foulath constitutes a uniquely integrated steel producer that positions Bahrain as a key player in the region and the world's steel sector.

Foulath is a significant contributor to Bahrain's economy and to the creation of numerous direct and indirect jobs. Foulath's subsidiaries are responsible for almost 5% of the Kingdom's GDP, and about 25% of its non-oil exports. Bahraini nationals constitute around 51% of Foulath's employees.

As a user of iron ore,



Foulath is conscious of its responsibility towards the very source of its business - the planet. Its commitment to conduct its operations in an environmentally responsible and socially inclusive fashion shapes its strategy for sustainable growth. Principles of zero-harm, resource efficiency, circular economy,

and care for the community and employees are deeply embedded in the Foulath's operating philosophy as it focuses on transitioning to lower carbon-intensive operations and promoting sustainable steelmaking.

Foulath is proud to be associated as a sponsor of the Future Mineral Forum 2024.

→ STRATEGIC PARTNER: **MANARA MINERALS INVESTMENT COMPANY** STAND: **SP10**

MANARA MINERALS

The formation of Manara Minerals Investment Company (Manara) was announced at the second edition of the Future Minerals Forum in 2023. This new venture between Ma'aden - the Saudi Arabian Mining Company - and the Public Investment Fund (PIF) is investing in mining assets globally, securing strategic minerals that are essential for Saudi Arabia's industrial development as well as supporting the development of resilient global supply chains.

Focused on copper, lithium, nickel and iron ore - strategic minerals needed for the global energy transition - the company provides long-term capital in exchange for minority equity positions in investment opportunities that

offer both access to offtake as well as attractive returns on investment. Physical offtake of critical minerals ensures supply security for domestic mineral downstream sectors, and positions Saudi Arabia as a key partner in achieving global supply-chain resilience.

Most recently, Manara announced an equity investment in Vale Base Metals Limited (VBM), the holding entity of Vale's Energy Transition Metals business. Through this transaction, Manara will gain access to high quality supply chains across strategic minerals, including nickel, copper, and cobalt, which will support the growth of the Kingdom's mining sector and accelerate the global energy transition.

Its investment mandate



is global, and it sees opportunities in Africa and Asia to connect with value chains in the Middle East.

Manara invests across the life cycle of an asset, while ensuring a balanced portfolio, and together with its partners, seeks to support mid-stream industrial development in the Kingdom and provide access to regional growth markets.



We are proud to be playing a leading role in the economic diversification and growth of Saudi Arabia, building the talent pool and securing the future for the country, as we help deliver Vision 2030."

Bob Wilt
Executive Director (Acting CEO), Manara Minerals

Importantly, the company keeps the principles of ESG at the forefront of its investments.



→ STRATEGIC PARTNER: **SAUDI CHEMICAL COMPANY LIMITED** STAND: **SP08**

MEET SAUDI CHEMICAL COMPANY LIMITED AT FMF24

KSA's leading producer of explosives - key to mineral exploration - will be showcasing their expertise and the strategic role they play in many Saudi industrial projects

Saudi Chemical Company Limited (SCCL) - the country's leading producer of explosives - looks forward to attending the Future Minerals Forum 2024. The team anticipates being able to play a part in many important conversations with stakeholders around the creation of resilient and responsible mineral value chains in the Middle East, Africa, Western, and Central Asia.

Exploration is important to the future of the super-region's mining sector, and explosives are vital in many mineral exploration processes, from the early stages of prospecting to the development of mining sites. They are used to break up hard rock formations, expose mineral deposits, and create access



roads and other infrastructure.

SCCL has more than five decades of experience in manufacturing the highest quality and safest civil explosives used primarily in oil and gas exploration, mining,

cement industries, tunnels, and infrastructure projects.

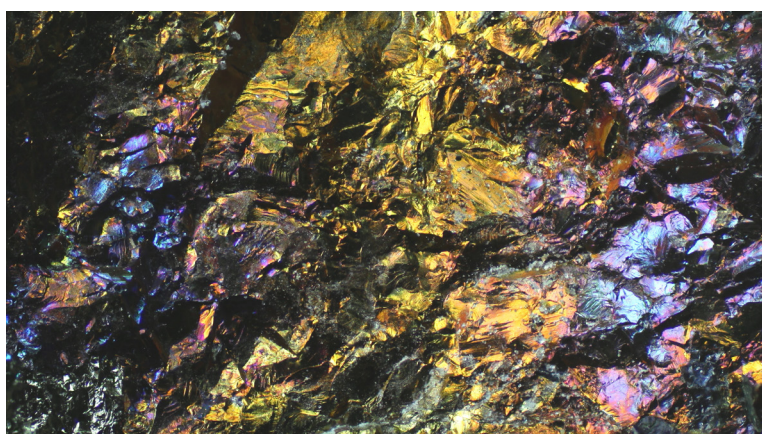
SCCL has supported many strategic projects linked to our Kingdom's ambitious Vision 2030 and effectively contributed to the Kingdom's

prosperity.

SCCL is a subsidiary of Saudi Chemical Company Holding (SCCH); it owns three factories for civil explosives in northern, central, and western Saudi Arabia and distribution centers in the eastern, western, and southern regions. Its products include civil explosives, seismic explosives, non-electric detonators, and initiation systems. SCCH owns and operates a plant in Egypt to produce ammonium nitrate to ensure the security of supply for SCCL primary feedstock. In addition, SCCL produces military explosives including TNT and RDX products and mechanical fuzes of all kinds.

Find out more at <https://www.saudichemical.com/>

FMF ZONES OVERVIEW



Mineral Tech Zone Overview

Dedicated to displaying the latest and future technologies in the mining and minerals sector, Mineral Tech Zone was a newly introduced feature of the Future Minerals Forum 2023. Led by King Abdulaziz City for Science and Technology (KACST), a specialized evaluation committee assessed multiple international entries as part of a prequalification process for participation.

The zone showcases various technologies including drones, remote data measurement units, electric batteries, and virtual simulation technology. These technologies facilitate operational and administrative functions as well as remote monitoring operations, enabling businesses to reduce operating costs and adhere to environmental standards more effectively.)



Mineral Exploration Zone Overview

A dedicated zone for junior exploration companies or junior mining companies that specialize in the early stages of mineral exploration and development.

A showcase of global projects from diversified producers and some of the most compelling exploration and development companies, this dedicated area within FMF provides an excellent opportunity to identify new investment opportunities by meeting with the senior executives from these companies.

A premium platform for junior miners conducting extensive exploration activities, assessing economic viability, and implementing sustainable practices.)



Ministerial Roundtable: **9 January 2024**
Conference and Exhibition: **10-11 January 2024**

Riyadh, Saudi Arabia, King Abdulaziz
International Conference Center

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AMAK
Al Masaneer Al Kobra Mining Co.



الشركة العربية لألياف البازلت
Arab Basalt Fiber Company



فولاد
FOULATH



هيئة المحتوى المحلي
والمشتريات الحكومية
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منارة المعادن
MANARA MINERALS



مدن
MODON



National Industrial
Development and
Logistics Program



المركز الصناعي
Industrial Center



الهيئة العامة للغذاء والدواء
MINISTRY OF SAUDI ARABIA



SAUDI EXIM
بنك المصدّر والاستيراد السعودي



هيئة تنمية الصادرات السعودية
Saudi Export Development Fund



الصندوق
الصناعي
Saudi Industrial Development Fund



المؤسسة العامة لتحويل المياه المالحة
Saline Water Conversion Corporation (SWCC)



الشركة الكيميائية السعودية المحدودة
Saudi Chemical Company Limited



هيئة المساحة الجيولوجية السعودية
SAUDI GEOLOGICAL SURVEY
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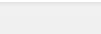
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