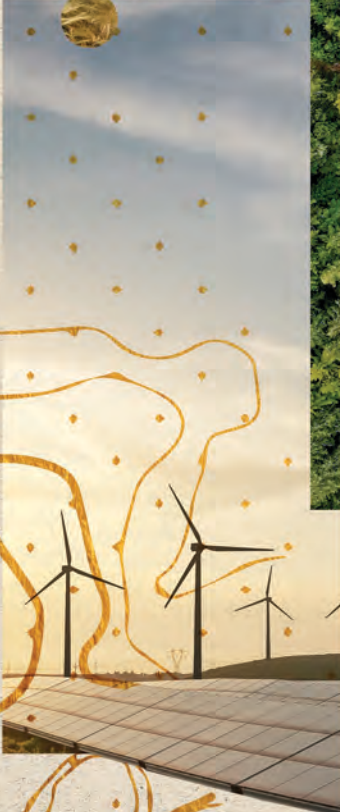




GROWING IMPACT

FOR A
SUSTAINABLE
FUTURE



ANNUAL REPORT
2022



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King Salman bin Abdulaziz Al-Saud

The Custodian of the Two Holy Mosques



His Royal Highness, Prince Mohammed bin Salman bin Abdulaziz Al-Saud

Crown Prince and Prime Minister of the Kingdom of Saudi Arabia

01



FOREWORDS



Chairman's Statement



H.E. Yasir O. Al Rumayyan
Chairman of the Board

Ma'aden has set an ambitious strategy for 2040 that reflects the company's vision to become a sustainable mining champion with a global presence.

The company is taking transformative steps to strengthen its ability to unlock the value of Saudi Arabia's mineral resources and make a real impact in support of Saudi Vision 2030 by driving economic diversification and stimulating wider economic activity.

2022 was an exceptional year for Ma'aden characterized by progress and transformation. I am proud that Ma'aden continued to play an important role in helping realize Saudi Vision 2030 objectives in 2022, as we unearth the full potential of our mineral riches.

Under the leadership of King Salman bin Abdulaziz Al-Saud, The Custodian of the Two Holy Mosques, and His Royal Highness Prince Mohammed bin Salman Al-Saud, the Crown Prince, and Prime Minister of the Kingdom of Saudi Arabia, we will continue to power Saudi Arabia towards a sustainable and prosperous future.

Ma'aden achieved record levels of growth in 2022 and made great progress on our historic transformation journey, which will shape our ability to expand into new markets in the years ahead. A bold and ambitious approach to investment is also enabling us to shape key global value chains, from Aluminium to phosphate fertilizers. We are moving forward from a position of strength, with experience and with resources, to provide the critical minerals and metals that are powering Saudi Arabia's bright future.



Chairman's Statement

Financial Performance

Ma'aden had a record year financially in 2022, delivering value for our shareholders, and vital products to businesses across Saudi Arabia, and our customers internationally.

Our financial results reflected the strength of our commodity mix, growing our net profit by

87% to
SAR 12.13 billion

and increased sales to

SAR 40.28 billion

Ma'aden's financial position strengthened with long-term borrowings and net debt reduced by 12% and 34% respectively, positioning the company for growth as we move into new business areas and push ahead with our ambitious transformation program.

Business Strategy

This year, Ma'aden has continued to transform under the leadership of the new Chief Executive Officer, Robert Wilt, who is driving forward change across all of Ma'aden's business units and functions through the NUMU transformation program. The core pillars of the program are delivering a safer and healthier working environment for our people, whilst building business performance and growth.

Our Aluminium business continued to provide the raw materials to drive the growth of Saudi manufacturing and our growing Industrial Minerals business expanded sales to the Saudi domestic economy by around

27%

Ma'aden's position in global supply chains was strengthened as our Phosphate business maintained its position as the world's second-largest exporter of phosphate – achieving a market-leading position in India – enabling agricultural development around the world.

Our ongoing investment into our exploration portfolio will enable our future production profile across core minerals and provide new opportunities to create long-term value for both Ma'aden and Saudi Arabia.

Global challenges

Price fluctuations across commodities in 2022 were heavily influenced by geopolitical factors, but our increasing presence in new minerals is beginning to diversify Ma'aden's portfolio of assets to better manage future risk.

Our role in global supply chains is increasing resilience in the system through increased food security, at the same time as increasing choice for the global mining sector as we make strategic investments and provide a destination for the sector's products in the fast-growing Saudi market.

Environmental, Social, and Governance (ESG)

The impact on the environment and society is ever-present in our thinking. In 2022, I announced that Ma'aden intends to achieve net zero for carbon emissions by 2050 and we have pushed ahead with Ma'aden's roadmap to carbon neutrality, playing a central role in delivering a green future for Saudi Arabia. We continue to work with local communities to ensure that we share the benefits of our success with the people who have contributed to our success. Strengthening our health and safety record remains a key priority for us and 2022 saw our best performance ever on key health and safety metrics such as the All-Injuries Frequency Rate.

The Year Ahead

In the coming year, we will continue our transformation, building on existing partnerships and forging new relationships, as we continue to grow.

Our Mansourah-Massarrah gold project will be commissioned, providing a significant boost to our gold production. Our Phosphate 3 project will continue to be developed to further expand our production of phosphate, building on our already globally significant position in the market. And we will continue to look for opportunities for international partnerships to progress Ma'aden's strategy and the Saudi Vision 2030.

On behalf of the Board, I would like to thank Saudi Arabia's leadership for their guidance, as well as all our employees, customers, and investors who are making our drive for sustainable growth possible.



Chief Executive Officer's Message



Robert Wilt
CEO

Making an Impact

I was proud to be appointed as the new CEO at Ma'aden in 2022.

This is a market, a sector, and a Kingdom, that offer one of the most compelling opportunities in the global mining industry.

The business remains focused on leveraging its unique position within Saudi Arabia to unlock the vast mineral wealth of the Kingdom. As the CEO, my primary focus is to leverage this advantage and steer Ma'aden into its next phase of growth, ensuring sustainable value realization and positioning the company as a leader in the industry.

Growth Through Transformation

Since joining Ma'aden, I have been inspired by the company's clear vision, compelling strategy, and the unwavering dedication of our exceptional core team.

Together, we share a commitment to enhance performance, drive transformative changes, and chart a new direction that ensures long-term growth. While Ma'aden already boasts strong business fundamentals, we recognize the need to go beyond the status quo to achieve our ambitious goal of tenfold growth. To that end, we have embarked on an extensive transformation program encompassing strategic and operational changes.

Our transformation program is creating a flatter and more agile organization that empowers our employees, fosters innovation, and enhances our ability to capture high-value growth opportunities.

A Strong Financial Foundation

The financial foundation that we have for the next phase of our transformational journey could not be stronger.

In 2022, Ma'aden achieved record-breaking financial results. We witnessed substantial jumps in net profit, sales, and EBITDA, which provide us with a solid foundation for future investments and growth. Our EBITDA witnessed a significant rise of 51%, reaching SAR 18.68 billion.

These achievements underscore Ma'aden's robust financial position and demonstrate our ability to deliver strong returns to our shareholders.



Chief Executive Officer's Message

Focus on Safety

While we celebrate our financial success, we remain steadfast in our commitment to prioritizing safety above all else.

At Ma'aden, we have implemented rigorous safety standards and initiatives to protect the well-being of our employees and the communities in which we operate. Our efforts have yielded positive results, demonstrated by the significant reduction in the All-Injuries Frequency Rate (AIFR). In 2022, our AIFR decreased to 0.13, down from 0.20 in the previous year, signifying our continuous improvement in safety performance.

Operational Performance

Ma'aden saw excellent performance across our asset base during the year. To build upon this, we have now restructured the business to establish three core business units across phosphates, base metals and new minerals, and Aluminium.

This restructuring empowers our mining operations, enhances our agility, and positions us to capitalize on high-value growth opportunities. Notably, we have several major projects in the pipeline that will significantly contribute to our future growth. The Mansourah-Massarrah gold mine, our largest gold project to date, is on track for commissioning in the second half of 2023. Additionally, we are progressing steadily with the Phosphate 3 mega project, which will augment our fertilizer exports by 3 million tons per annum (Mtpa).

Alongside our increasing investment in exploration and diversification of operations, these major projects will provide the cornerstone for our future growth.

In combination, these initiatives will provide new opportunities for Ma'aden to diversify its product mix and structure its portfolio to deliver long-term profitability and value to shareholders and stakeholders.

An ESG Role Model for Local Industry

The pace and scale of our growth must not be at the expense of the environment or the communities where we operate.

Our stakeholders rightly expect us to be a leader in ESG. I am confident that we have a sustainable business model that can deliver on this expectation, and which now incorporates ESG into all core pillars of our corporate strategy.

Ma'aden will play a critical role in locating and extracting the metals and minerals that will be required to decarbonize the world. But we must do that in a way that safeguards the needs of future generations.

We have a leadership that will hold us to account and challenge us to do more. In January of this year, our Chairman announced that our business will be carbon neutral by 2050. That is a challenging target but as a business, we welcome it and will respond to that challenge.

Delivering for the Kingdom

Ma'aden is also ensuring that our activities drive economic, social, and environmental improvements right here in Saudi Arabia, creating new employment opportunities, investing in education and skills development, and building the supply chains that support local businesses.

This is a core element of our business approach. As a major Saudi Arabian business, we know that supporting local businesses, particularly SMEs, can accelerate economic growth and diversification of the Kingdom's economy.

This is bringing benefits to local communities, but we want to do more.

Currently, our locally sourced products and services account for

45%

but we believe we can increase this to

75%

We are also committed to employing locally, with

79%

of our workforce represented by Saudi nationals during 2022.

To help drive this agenda forward, in 2022 we launched our Tharwah Program. This aims to increase our Local Content contribution to SAR 33bn and create up to 47,000 local jobs by 2040. That would increase the benefits that Ma'aden brings to local economies and support the wider ambitions of Vision 2030.

Achieving More Together

Ma'aden is a strong institution that can achieve a great deal. However, we know that by working closely with others we can achieve even more. Attracting world-class partners has been key to our rapid growth to date and will continue to play an important role in our long-term growth plans.

In 2022, we signed a ground breaking partnership agreement with Shareek that will accelerate the development of projects across our portfolio. We also expanded our existing joint venture partnership with Barrick and entered into a new relationship with Ivanhoe Electric. This will strengthen our exploration capabilities through the introduction of world-leading technology.

Stepping into the Future

2022 was a strong year for Ma'aden, but it was also a year where we set new ambitions and committed to working in an even more sustainable way. As CEO, I see it as my responsibility to work with the board and leadership to help the company as it seeks to meet the challenges that the future holds.

I would like to thank the entire Ma'aden team, the board, and our partners for a successful 2022. I look forward to the future with optimism, and with a strong expectation that we will continue our growth in the years ahead. This will deliver value for our shareholders, for our people, and for the communities and countries in which we operate.



Our Board



H.E. Yasir O. Al Rumayyan
Chairman -
Non-Executive member



H.E. Sulaiman Bin Abdulrahman Al Gwaiz
Independent member



H.E. Eng. Khalid Bin Saleh Al Mudaifer
Non-Executive member



Dr. Abdulaziz bin Saleh Al Jarbou
Vice Chairman -
Independent member



Dr. Mohammed Bin Yahya Al Qahtani
Non-Executive member



Dr. Ganesh Kishore
Non-Executive member



Mr. Abdullah Bin Saleh Bin Jum'ah
Independent member



Eng. Nabelah Bint Mohammed Al Tunisi
Independent member



Mr. Richard O'Brien
Non-Executive member



Ms. Sofia Bianchi
Non-Executive member



Robert Wilt
Executive member



Our Executive Management



Robert Wilt
Chief Executive Officer



Louis Irvine
Executive Vice President,
Finance and Chief
Financial Officer



Hassan Al Ali
Executive Vice President,
Phosphate Business Unit



Abdulaziz Asker Al-Harbi
Deputy Chief Executive Officer



Ali Al Qahtani
Executive Vice President,
Aluminium Business Unit



Duncan Bradford
Executive Vice President,
Base Metals & New
Minerals Business Unit



Saleh Al-Maghlouth
Executive Vice President,
Exploration & Resource
Development



Hamad Al-Rashidi
Senior Vice President,
Sustainability, Safety
and Innovation



Ayed Al Mutairi
Senior Vice President, Corporate
Strategy and Corporate Affairs



Abdulrahman As-Sadlan
Senior Vice President, Project
Development and Engineering



Abdullah Al Osaimi
Senior Vice President,
Procurement & Business
Support



Frederick J. Reeder
Chief Audit Executive



Rene Thumbran
Chief Human Resources
Officer (Acting)



Raminder Singh
Chief Legal Officer (CLO)



Our Governance



Governance at the Heart

These governance structures serve as the bedrock of Ma'aden's achievements. Our Board of Directors comprises a diverse team of professionals with extensive expertise and global experience. This collective knowledge empowers us to make informed decisions that draw upon insights and best practices from various industries and markets.

By fostering transparency in our decision-making, we cultivate agility and drive efficiency throughout our operations. This compels us to continually innovate and work smarter, enabling us to realize our vision as Saudi Arabia's mining champion.

Our Governance

The robustness, transparency, and quality of Ma'aden's decision-making structures provide the foundations for our success.

Our Board of Directors brings together an array of experience and expertise from diverse backgrounds. This provides the company with access to a world-class combination of skills and experience.

This combination of cross-sector expertise creates a unique learning environment and enables us to work smarter and think bigger.

The Board plays an active role in guiding Ma'aden's Strategy and works closely with our Executive Management in working toward achieving Ma'aden's goals.

We believe governance is a fundamental driver of any business. As we progress on our path of growth and international expansion, our strong corporate governance will continue to guide our journey.

Ma'aden

Year in Numbers



Increased sales to SAR **40.28** bn



335,207 oz of gold mined



25,000 jobs created in mining industry supply chains



100,000 Trees planted in 2022



Net profit grew by **87%** to SAR **12.13** bn sales grew by 50%



72% of total procurement was placed with local companies



6,311 Direct employees and 79% are Saudi nationals



Zero Cybersecurity breaches



18% of global annual trade in phosphates



45% of spend on local products and services



89% Of new hires are Saudi nationals.



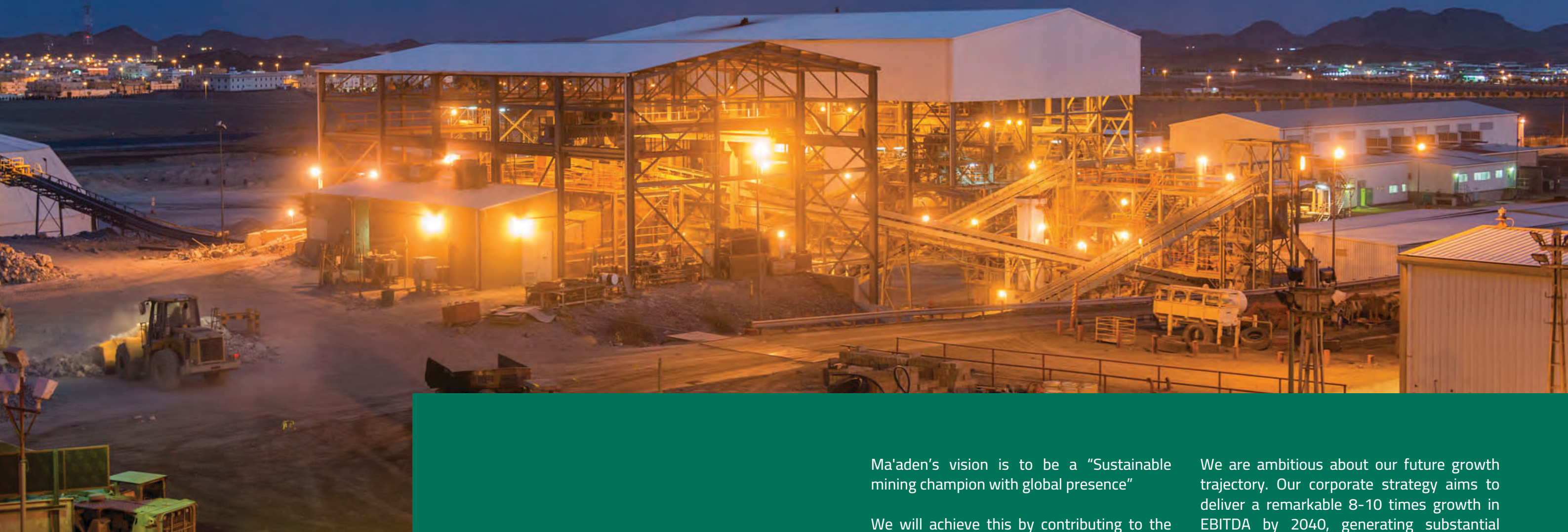
40 new licenses



MA'ADEN: A STRATEGY FOR TOMORROW



02



Our Vision

Ma'aden's vision is to be a "Sustainable mining champion with global presence"

We will achieve this by contributing to the growth and development of the Kingdom's mining industry while upholding our core values of integrity, care, teamwork, and ownership.

We are ambitious about our future growth trajectory. Our corporate strategy aims to deliver a remarkable 8-10 times growth in EBITDA by 2040, generating substantial shareholder value while driving wider social and economic progress in full alignment with the aims and aspirations of Vision 2030.

To achieve this growth, we will focus on two key approaches: scaling our existing businesses and expanding our portfolio by exploring new mineral opportunities within Saudi Arabia.



NUMU: Unearthing Potential

In 2022, Ma'aden committed to transformation to ensure that our structure with people and process are supported to become more effective, efficient, and impactful.

Central to the achievement of this is NUMU, Ma'aden's transformation program which was launched this year.

The guiding principle behind NUMU is "Let's unearth our potential." This comprehensive transformation program will touch on every aspect of our operations, from the operating model to plant procedures and future planning. We have laid out an ambitious 2040 strategy to grow tenfold, become the employer of choice in the Kingdom and make mining the true third pillar of the Saudi economy. To deliver this, we need to be an agile and efficient organization—one that moves fast, fosters talent and delivers results.

In 2022, we embarked on this transformation with a dual purpose.

- Design the future: Design and implement world-leading holistic practices to build Ma'aden of the future.
- Improve the current: Identify and implement improvement initiatives to deliver desired impact over the next 12-18 months.

With full involvement from company leadership and 500+ initiatives across 18 workstreams, we are well-positioned to enable a complete transformation of multiple functions, processes and activities throughout our corporate centres, business units and remote plants. To facilitate a smooth transformation, we have set up an efficient governance model with a professional Project Management Office and state-of-the-art digital progress tracking tools.





Three pillars define NUMU:

Organizational Health and Capabilities:

Multiple workstreams aimed at improving and enabling cultural and talent growth within the company in order to position Ma'aden as a recognized employer of choice within the kingdom through enhancement of employee safety, benefits, work environment, processes and overall employee value proposition. Work also continues on enhancing Ma'aden's recognition and reputation. We are proud to be perceived as the most valuable mining, metals & minerals brand in the Middle East.

Core Business Performance:

A comprehensive review and benchmarking of all indicators and metrics within our operations in mining, logistics and manufacturing throughout our extensive value chain have permitted identification of areas for potential improvement. All three of our business units; Phosphate, Aluminium and BMNM are engaged in an exhaustive series of operational excellence initiatives and improvement programs. A number of those initiatives are expected to deliver significant recurring financial impact. Development of production capabilities is being undertaken throughout all Ma'aden plants and joint investments.

Growth:

Exploration and large scale capital investments are key aspects of our long-term strategy. Numu initiatives for exploration and project development will provide a strong foundation for all our growth ambitions in the coming decade.

By providing an enterprise-wide framework and platform for all initiatives and projects, the NUMU transformation enables central steering and governance and will deliver positive, long-lasting change.

We look forward with confidence as the NUMU program delivers both improvement to our current operations and provides the foundations for our long-term growth and success. The capabilities built during this transformation will foster a culture of continuous improvement. It will be part of our DNA to always look for more opportunities to develop, expand and become even more competitive.

Strategy

Ma'aden aspires to become KSA sustainable mining champion leading the development of the mining industry in the kingdom with a global presence. The business will achieve this by contributing to the growth and development of the Kingdom's mining industry while upholding our core values of integrity, care, teamwork, and ownership.

Ma'aden corporate strategy sets out an ambitious plan to deliver ~8-10x EBITDA growth by 2040 and to create substantial shareholder value while driving socio-economic impact for KSA in alignment with vision 2030 and the Mining Strategy.

This growth will come from building scale in existing businesses and expanding the portfolio in new minerals through a robust exploration strategy of current and new minerals in an accelerated effort to unlock the promising KSA geological endowment. To achieve this, we will leverage relationships with world class partners and implement cutting-edge technologies.



Ma'aden Strategy 2040

Relies on four strategic pillars including leveraging KSA resources, focusing on value, driving productivity with strong stewardship of environmental, social, and corporate governance (ESG) and the foundational enabler of exploration.

Ma'aden's profitable business acceleration portfolio includes several strategic initiatives under the four strategic pillars including, but not limited to, diversified fertilizer initiatives to become among the top 3 producers in the global fertilizer market, primary Aluminium production capacity growth to become among the top 10 globally and diversified gold portfolio as well as base metals including copper, zinc, and other industrial metals.

But Ma'aden is aware that such rapid growth must be balanced with the business's ESG goals. That is why Ma'aden has embraced and fully integrated an effective ESG strategy to advance global attempts to create positive, enduring change in the mining industry. Ma'aden's objective is to be a global leader in demonstrating how the mining industry can work in a way that contributes positively to the global sustainability agenda.



Exploration

The future of a mining company depends on exploration to grow its portfolio of high-quality Mineral Resources to sustain and grow its business.

To deliver on Ma'aden's vision to be the Kingdom's exploration and mining champion, and to be the largest investor in mineral exploration in Saudi Arabia, Ma'aden exploration has engaged on a significant scale-up in its operations from greenfield, grassroots through to advanced-stage projects, building new capacity and capabilities.

Since Ma'aden was formed in 1997, our exploration programs have delivered major Mineral Resource growth in the Kingdom in gold, copper, phosphate, metallurgical bauxite, magnesite, and kaolin.

In 2022 we continued to build on these successes adding new resources in gold, phosphate, and magnesite, while advancing projects through the pipeline. These resources are the foundation of not only of Ma'aden's business, but also the Saudi mining sector.

Strategy

The objective of Ma'aden's mineral exploration program in Saudi Arabia is to deliver business growth through the exploration, discovery, and evaluation of new Mineral Resources. These new Mineral Resources provide options for the development of new mines or to increase production in our existing operations or to extend the life of mines.

Ma'aden undertakes exploration in both greenfield and brownfield sites. The objective of greenfield exploration on our exploration licenses is to discover large, new Mineral Resources to develop into new standalone mines.

Brownfield exploration aims to find new mineral deposits within economic transport distance of our existing mines to add shareholder value through expansion of existing mine capacity, from displacement of lower grade ore from the mine plan or through extending the life of the mine. Brownfield exploration usually delivers incremental growth in a mine's Mineral Resources but sometimes results in major additions which allows expansion of mine production at a lower capital cost than for greenfield projects. Our exploration around Al Jalamid and Al Khabra phosphate mines and the current exploration work around Sukhaybarat and Bulghah mines in the northern Arabian shield gold region, or around Mansourah Massarah in the central Arabian shield, are examples of brownfield exploration with the potential for major Mineral Resource additions; these are discussed later in this report.

Greenfields exploration is a major part of Ma'aden's strategy to explore outside the established mining camps, throughout the Kingdom, for new Mineral Resources in both the core Ma'aden commodities (gold, copper, zinc, phosphate, and bauxite) and new minerals and commodities. To this end and led by advanced targeting techniques using artificial intelligence

Ma'aden has applied for new Exploration Licences on both the Arabian shield area, comprising older rocks and adjoining areas known as the Platform which are covered by younger sedimentary lithologies.



Health, Safety and Care of the Environment

The health and safety of our exploration personnel who operate in remote areas of the Kingdom is our highest priority.

Since Ma'aden's formation in 1997, there have been no fatalities in Exploration. We closely monitor our health and safety reporting and encourage and reward good safety performance. Our highest risks and highest number of incidents recorded in 2022 remain those related to the remote and harsh working environment of our people and the dangers posed by the long distances travelled from and to those remote locations. In 2022 we upgraded our journey management plan system to enable more robust real-time monitored satellite location and speed tracking for all vehicles complemented by advanced off road and defensive driver training to all personnel.

The remaining effects of the COVID-19 pandemic to our exploration operations during the year were managed and mitigated by adherence to health protocols and a strict vaccination and booster vaccination program. By mid-year the restrictions were lifted across Ma'aden. The Exploration team did not record any cases of COVID transmission in our field sites throughout the pandemic.

The Exploration team manages the care of the environment in its day-to-day activities through implementation of the Ma'aden safety, health, and environment management (MSHEM) plan. While not inherently damaging to the environment, great care is taken to rehabilitate all drill sites and excavations and to ensure access to our exploration sites is controlled. During 2022 a dialogue was opened with several State environmental entities including the National Centre for Wildlife to ensure our continuing access to carry out exploration activities within those areas.

Governance

The reporting of our Exploration Results and Exploration Targets is in accordance with the JORC Code 2012. Reports were prepared by qualified and experienced Ma'aden professionals, who are Competent Persons as defined in the JORC Code. Competent Persons must have a minimum of five years of relevant experience in the type of mineralisation and in the activity being reported and must be a member of a recognised professional body, whose members are bound by an enforceable professional code of ethics. These Competent Persons have consented to the inclusion of the estimates in this report in the form and context in which they appear.



Licences

The Exploration and Resource Development (ERD) Division explores Ma'aden's exploration licences while exploration on mining licences and for mine development projects is conducted by the Ma'aden Business Unit and by the Ma'aden Affiliates on our operating mines.

Ma'aden's licence portfolio comprises exploration licences (EL), exploration licences under application (ELA), mining (or exploitation) licences (ML) and areas under application for mining licences (MLA).

Exploration licenses are granted by the Ministry of Industry and Mineral Resources (MIMR) for a period of 5 years, renewable twice for a further period of 5 years each, subject to compliance with the regulations. The license status on 31 December 2022 is summarized in the following table according to principal commodity.

Area of Licences and Applications on 31 December 2022 (km2)

Commodity	EL	ELA	ML	MLA
Gold	14,834	9,786	397	170
Base metals New Minerals	5,528	41,423	16.5	-
Phosphate	0	1,080	428	845
Potash	228	-	0	-
Metallurgical Bauxite	589	-	148	81.5
Industrial bauxite - Kaolin	-	-	27.7	-
Magnesite	112	-	3.2	-
Total	21,291	52,217	1,020.4	1,096.5

EL - exploration licence; ELA - EL application; ML - mining licence; MLA - ML application

During the year the emphasis was on securing new prospective ground to replace mature licences which have been evaluated and either allowed to expire or have had mining licence applications lodged over resources identified. In total 44,729 km2 of new applications were lodged and are under consideration with the MIMR, while 4,520 km2 expired during the period. Mining applications were lodged over 1,006 km2 – in phosphate and gold.



Expenditure



Our focus in 2022 was exploration for the addition of new gold resources and the development of greenfield projects in gold and base metals to feed the future advanced-stage project pipeline.

We also advanced the Jabal Rokham magnesite project to inferred resource category.

In 2022, Ma'aden spent

SAR 207 million

in greenfield and brownfield exploration programmes.

Of this expenditure,

SAR 168 million

(81%) was for greenfield programmes on exploration licences,

SAR 39 million

(19%) for brownfield programmes on exploration licences and mining licences.

Exploration Expenditure by Commodity in 2022

(in SAR million)

Commodity	EL	PFS + FS	ML
Gold	164.13	0	4.02
Base metals	7.67	0	6.59
Magnesite	1.73	0	0
Rare Earth elements	-	28.5	-
Total	173.53	28.5	10.61

EL – exploration licence; PFS – prefeasibility; FS – feasibility; ML – mining licence

Operations

Ma'aden's greenfield and brownfield exploration drilling on exploration and mining licences for all commodities totalled 225,000 metres in 2022.

Exploration Drilling by Commodity in 2022 (in metres)

Commodity	EL	PFS + FS	ML
Gold	103,538	0	21,852
Base metals	16,950	0	8,789
Rare Earth Elements	0	73,744	0
Magnesite	2,317	0	0
Total	121,345	73,744	30,641

EL – exploration licence; PFS – prefeasibility; FS – feasibility; ML – mining licence



Exploration Targets and Inferred Resource Additions

The brownfield resource delineation programs in 2022 delineated significant Exploration Targets.

Ma'aden Exploration Division conducted brownfield exploration drilling on exploration licenses on the Zalim and Tawan Licences and added inferred resources for Zalim and Maham targets.

Zalim Gold

In 2022, Ma'aden Exploration Division assessed 120 gold and base metal targets in the exploration licenses. Exploration advanced 33 of these targets into subsequent evaluation stages through drilling. The Exploration Division conducted resource delineation drilling on two gold targets, at Zalim in the Central Area and on the Thurb project on the Miskah exploration license. Work commenced on new exploration licenses granted in late 2021 at Tawan and Jabal Sayed, with promising early results. Resource delineation drilling was Jabal Rokham on a magnesite project.

Base Metals and New Minerals (BMNM) conducted exploration drilling and evaluation on mining licenses at As Suq and Al Amar.

The Zalim gold deposit lies near the town of Zalim (also known as Dhalm) adjacent to the Riyadh-Jeddah highway. The gold mineralization is hosted in quartz veins, stockwork and veinlets and is amenable to open pit mining. The gold is essentially free-milling and is not sulphide locked or refractory.

A pit-optimised combined indicated and inferred resource of 5.47Mt at a mean grade of 1.99 g/t gold (351 Moz contained gold) has been delineated.

Potential for further economic mineralization and extensions at Zalim may be affected by the proximity to the national highway and the National Centre for Wildlife protected area.

Maham Gold

The Maham gold deposit is located on the Tawan exploration license 70 kilometres south southeast of the Bulghah mine and 35 kilometres southeast of the Humaymah deposit. The deposit has been evaluated as potentially open pit mineralization as a brownfield ore feed to the Bulghah-Sukhaybarat processing complex.

An inferred resource of 5.34 Mt at a mean grade of 2.9 g/t gold (497 Moz of contained gold) has been delineated above a cut-off grade of 0.65 g/t gold. Further study is required to fully assess the project's metallurgical nature which could be of a refractory nature.

Potential to increase the tonnage at Maham exists with the deposit open both along strike and at depth, down plunge.

Jabal Rokham Magnesite

The Jabal Rokham magnesite project is located approximately 330 kilometres north-east of Jeddah and 60 kilometres north-east of the Mahd ad Dahab mine site. The deposit forms part of the 7 km long Jabal Rokham range, with the deposit forming a large hill at the northern end.

Following infill drilling in 2022, an inferred resource of 67.0 Mt tonnes of uncalcined MgO (magnesite) is reported at a grade of 42.1 MgO% with 3.9% CaO and 5.2% SiO₂.



Mineral Resources and Ore Reserves



Introduction

The Mineral Resource and Ore Reserves of a mining company are key assets of the business.

The Ore Reserve and Mineral Resource estimates in this report were prepared by Competent Persons in accordance with the requirements of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves 2012 edition (the JORC Code). The exception was the Jabal Sayid mine, where the estimates were prepared by Qualified Persons in accordance with the CIM 2014 Definition Standards for Mineral Resources and Mineral Reserves. There are no material differences between CIM 2014 and the JORC Code.

The JORC Code represents current global industry best practice for the reporting Ore Reserves and Mineral Resources.

The reporting of Ore Reserve and Mineral Resource estimates by Ma'aden complies with the principles of transparency, materiality, and competence in the JORC Code for the estimation, classification, reporting, review and presentation of this report.

The Mineral Resources and Ore Reserves terminology used in this report follows the definitions in the JORC Code. Additional terms are defined in the Glossary of this section of the annual report.

Reporting

The Mineral Resources and Ore Reserves estimates are reported for the projects at an effective date of 31 December 2022 after depletion for mine production and adjustments for changes in commodity process, technical factors, and economic factors. Summary data for year end 2021 and 2020 and 2019 are shown for comparison. Metric units are used throughout this report.

Mineral Resources are reported inclusive of the Mineral Resources within the Ore Reserves. All estimates are reported on a dry tonnes basis.

Mineral Resource and Ore Reserve estimates are reported by commodity, project, development stage and licence. All estimates are reported as the total for each project. Ma'aden ownership interest is listed for project.

Ma'aden's Mineral Resource and Ore Reserve estimates for phosphate, bauxite, kaolin, magnesite, gold and copper are reported on 31 December 2022, 2021, 2020 and 2019; Differences in Mineral Resources and Ore Reserves for the different commodities from 31 December 2021 to 31 December 2022 are presented as a waterfall chart quantifying and classifying the changes.



Governance

Ma'aden implemented a system of internal and external reviews to provide assurance that Ore Reserve and Mineral Resource estimates are reported in accordance with the JORC Code and global mining industry practice.

The reported Ore Reserves and Mineral Resources estimated were prepared by or under the supervision of Competent Persons as defined in the JORC Code. Most estimates were prepared by independent Competent Persons, who are not employees of Ma'aden.

The estimates which were prepared by Competent Persons who were Ma'aden employees were reviewed and countersigned by independent, external Competent Persons to confirm that the estimates comply with the requirements of the JORC Code. All Competent Persons consented to the inclusion of the estimates in this report of in the form and context in which it appears.

Ma'aden has formally appointed a Resources and Reserves Committee, which is comprised of experienced and qualified Competent Persons from within Ma'aden.

The Committee is responsible for reviewing all annual Ore Reserve and Mineral Resource estimates to provide assurance that Ore Reserve and Mineral Resource were estimated and reported in accordance with JORC Code. The Committee's membership, authorities and accountabilities are mandated in a policy and procedures document signed by the Chief Executive Officer.

The Committee reports to the Chief Executive Officer. The Ma'aden Board approved the publication of the Mineral Resource and Ore Reserve estimates in this report.



Commodity Prices

These Mineral Resource and Ore Reserve estimates are based on long term commodity price forecasts prepared annually by Ma'aden's Business Units.

Mineral Commodity	Mineral Resource	Ore Reserve
Gold	\$1550/oz	\$1300/oz
Silver	\$20.2/oz	\$17.6/oz
Copper	\$8665/t	\$7535/t
Zinc	\$2418/t	\$2103/t

Commodity prices for phosphate, metallurgical bauxite, kaolin, and magnesite are not reported as these commodities are either processed within Ma'aden's vertically integrated businesses or sold at multiple quality and chemical specifications.



Journey through Exploration

JORC Code

The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves 2012 edition (JORC Code) is an internationally recognized professional code of practice that sets minimum standards for the public reporting of Exploration Results, Mineral Resources and Ore Reserves. The key definitions from the JORC Code, which are used in this report, are given below.

The JORC Code provides a system for the classification and reporting of Mineral Resources and Ore reserves according to the levels of confidence in geological knowledge and technical and economic considerations (as shown in the JORC Code 2012).

Competent Person

A Competent Person is a minerals industry professional who is a Member or Fellow of the Australasian Institute of Mining and Metallurgy, or of the Australian Institute of Geoscientists, or of a Recognized Professional Organization, as included in a list available on the JORC and Australian Stock Exchange websites. These organizations have enforceable disciplinary processes including the powers to suspend or expel a member. A Competent Person must have a minimum of five years relevant experience in the style of mineralization or type of deposit under consideration and in the activity which that person is undertaking.

Exploration Results

Exploration Results include data and information generated by mineral exploration programs which might be of use to investors, but which do not form part of a declaration of Minerals Resources or Ore Reserves. The reporting of such information is common in the early stages of exploration when the quantity of data available is generally not sufficient to allow any reasonable estimates of Mineral Resources.

Exploration Target

An Exploration Target is a statement or estimate of the exploration potential of a mineral deposit in a defined geological setting where the statement or estimate, quoted as a range of tonnes and a range of grade (or quality) relates to mineralization for which there has been insufficient exploration to estimate a Mineral Resource. Any such information must be expressed so that it cannot be misrepresented or misconstrued as an estimate of a Mineral Resource or Ore Reserve. There has been insufficient exploration to estimate a Mineral Resource and that it is uncertain if further exploration will result in the estimation of a Mineral Resource.



Mineral Resource

A Mineral Resource is a concentration or occurrence of material of economic interest in or on the Earth's crust in such form, grade/quality, and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade, continuity, and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are sub-divided in order of increasing geological confidence into Inferred, Indicated and Measured categories.

Inferred Mineral Resource

An Inferred Mineral Resource is that part of a Mineral Resource for which quantity and grade or quality are estimated from limited geological evidence and sampling. Geological evidence is sufficient to imply, but not verify, geological and grade continuity. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. An Inferred Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to an Ore Reserve. It is reasonably expected that most of an Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.

Indicated Mineral Resource

An Indicated Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with sufficient confidence to allow the application of modifying factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit.

Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes, and is sufficient to assume geological and grade/quality continuity between points where data and samples are gathered. An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Ore Reserve.

Measured Mineral Resource

Measured Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit.

Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes, and is sufficient to confirm geological and grade/quality continuity between points where data and samples are gathered. A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proved Ore Reserve or under certain circumstances to a Probable Ore Reserve.

Modifying Factors

Modifying Factors are considerations used to convert Mineral Resources to Ore Reserves. These include, but are not restricted to mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social, and governmental factors.

Ore Reserve

An Ore Reserve is the economically mineable part of a Measured or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at Pre-Feasibility or Feasibility level, as appropriate, which include the application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified. The key underlying assumptions and outcomes of the pre-feasibility study or feasibility study must be disclosed at the time of reporting of a new or materially changed Ore Reserve. Ore Reserves are sub-divided in order of increasing confidence into Probable and Proved classifications.

Probable Ore Reserve

A Probable Ore Reserve is the economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource. The confidence in the modifying factors applying to a Probable Ore Reserve is lower than that applying to a Proved Ore Reserve. A Probable Ore Reserve has a lower level of confidence than a Proved Ore Reserve but is of sufficient quality to serve as the basis for a decision on the development of the deposit.





Proved Ore Reserve

A Proved Ore Reserve is the economically mineable part of a Measured Mineral Resource. A Proved Ore Reserve implies a high degree of confidence in the Modifying Factors. A Proved Ore Reserve represents the highest confidence category of an Ore Reserve estimate. The style of mineralization or other factors could mean that Proved Ore Reserves are not achievable in some deposits.

Scoping Study

A Scoping Study is an order of magnitude technical and economic study of the potential viability of Mineral Resources. It includes appropriate assessment of realistically assumed Modifying Factors together with any other relevant operational factors that are necessary to demonstrate at the time of reporting that progress to a Pre-Feasibility Study can reasonably be justified.

Pre-Feasibility Study

A Pre-Feasibility Study is a comprehensive study of a range of options for the technical and economic viability of a mineral project, which has advanced to a stage where a preferred method, the case of underground mining, or the pit configuration, in the case of an open pit, is established and an effective method of processing is determined. It includes a financial analysis based on reasonable assumptions on the Modifying Factors and the evaluation of any other relevant factors, which are sufficient for a Competent Person, acting reasonably, to determine if all or part of the Mineral Resources may be converted to an Ore Reserve at the time of reporting. A Pre-Feasibility Study is at a lower confidence level than a Feasibility Study.

Feasibility Study

A Feasibility Study is a comprehensive technical and economic study of the selected development option for a mineral project, which includes appropriately detailed assessments of the applicable Modifying Factors together with any other relevant operational factors and detailed financial analysis which are necessary to demonstrate at the time of reporting that extraction is reasonably justified (economically mineable). The results of the study may reasonably serve as the basis for a final decision by a proponent or financial institution to proceed with, or finance, the development of the project. The confidence level of the study will be higher than that of a Pre-Feasibility Study.

Annual Change Waterfall Graphs

The definitions in the waterfall graphs showing the changes from December 2018 to December 2019 are listed below.

Reserve Life

Reserve life is the remaining years of mining and processing according to the life of mine plan in the Ore Reserve report.

Grade

Grade is the estimate of the quantity, percentage or quality of a metal or mineral contained within a mineral deposit.

Cutoff grade

Cutoff grade is the grade above or below which the Mineral Resource or Ore Reserve is economic.



Mining Depletion

Mining depletion is the reduction in the Ore Reserve or Mineral Resource due to annual mine production estimated from mine survey and production reconciliation.

New Data

New data are new data from drilling, sampling, chemical analysis, geotechnical, metallurgical or technical studies.

Cost Factors

Cost factors are the operating, capital, processing, and transport costs used to estimate the economics of extraction of the Mineral Resource and economic mine ability of the Ore Reserve.

Estimation methodology

Estimation methodology is method which is used by the Competent Person to estimate the tonnes, grade, quality or confidence level of the estimates to classify the Mineral Resource or Ore Reserve.

Life of Mine Plan

The Life of Mine Plan is the approved long term plan for the design, development, ore extraction and processing of a mine in an Ore Reserve report by a Competent Person.

Revenue Factors

Revenue factors are changes in the sale prices of the mineral commodity and foreign currency exchange rates used to convert the international market price to the local currency.

Stockpiles

Stockpile changes are annual changes in the tonnage and grade or classification of the Mineral Resource or Ore Reserve classification of ore in temporary storage after mining but before processing.



MINERAL RESOURCES - DECEMBER 2022

31 December 2022 Mineral Resources																				
Report: Main or Equivalents				2022																
Phosphate				Measured				Indicated				Inferred				Measured + Indicated + Inferred				
Project	Ma'aden %	Project Stage	Mine	Mt	%P2O5	% MgO	% SiO2	Mt	% P2O5	% MgO	% SiO2	Mt	% P2O5	% MgO	% SiO2	Mt	% P2O5	% MgO	% SiO2	red Mt P2O5
Al Jalamid ML	70%	Mine	OP	370.00	18.20	5.20	2.00	90.00	18.52	5.74	1.70	4.00	17.90	6.90	1.30	464.00	18.26	5.32	1.94	84.72
Al Jalamid ELs	100%	Exploration	OP	-	-	-	-	289.00	19.10	6.60	2.70	1,400.00	16.30	6.50	2.40	1,689.00	16.78	6.52	2.45	283.40
Total				370.00	18.20	5.20	2.00	379.00	18.96	6.40	2.46	1,404.00	16.30	6.50	2.40	2,153.00	17.10	6.26	2.34	368.12
Project	Ma'aden %	Project Stage	Mine	Mt	%P2O5	% MgO	% SiO2	Mt	% P2O5	% MgO	% SiO2	Mt	% P2O5	% MgO	% SiO2	Mt	% P2O5	% MgO	% SiO2	red Mt P2O5
Al Khabra ML	60%	Mine	OP	269.40	16.74	-	9.88	108.00	15.54	-	10.06	6.50	17.55	-	17.17	383.90	16.42	-	10.05	63.02
Umm Wu'al B6 ML	60%	Prefeasibility	OP	-	-	-	-	473.00	16.70	0.20	2.20	-	-	-	-	473.00	16.70	0.20	2.20	78.99
Umm Wu'al B4-5 ML	100%	Prefeasibility	OP	177.00	16.90	-	2.20	150.00	16.80	-	2.60	96.00	16.30	-	3.60	423.00	16.73	-	2.66	70.76
Umm Wu'al B10-11 ML	100%	Prefeasibility	OP	29.00	20.40	-	8.00	39.00	19.10	-	8.60	213.00	18.50	-	9.30	281.00	18.78	-	9.07	52.77
Umm Wu'al EL	100%	Exploration	OP	-	-	-	-	-	-	-	-	3,773.50	15.20	-	7.80	3,773.50	15.20	-	7.80	573.57
Total				475.40	17.02	-	6.91	770.00	16.68	0.12	3.70	4,089.00	15.40	-	7.79	5,334.40	15.73	0.02	7.12	839.12
Metallurgical Bauxite				Measured				Indicated				Inferred				Measured + Indicated + Inferred				
Project	Ma'aden %	Project Stage	Mine	Mt	% Al2O3	%TAA	% SiO2	Mt	% Al2O3	%TAA	% SiO2	Mt	% Al2O3	%TAA	% SiO2	Mt	% Al2O3	%TAA	% SiO2	red Mt Bauxite
Al Ba'itha ML	75%	Mine	OP	76.13	57.30	49.81	8.16	132.73	57.70	49.83	8.62	2.87	58.67	48.31	11.66	211.73	57.57	49.80	8.50	211.73
Az Zabirah ML	75%	Mine	OP	12.10	58.10	48.70	10.80	16.00	57.20	46.70	12.20	11.00	56.80	46.10	12.30	39.10	57.37	47.15	11.79	39.10
Az Zabirah Central MLA	100%	Exploration	OP	17.00	51.50	35.40	18.50	30.00	51.50	35.50	18.40	7.00	36.00	1.50	41.00	54.00	49.49	31.06	21.36	54.00
Az Zabirah North EL	100%	Exploration	OP	-	-	-	-	30.90	56.40	48.10	9.60	2.20	55.40	46.10	10.60	33.10	56.33	47.97	9.67	33.10
Total				105.23	56.45	47.35	10.13	209.63	56.58	47.29	10.44	23.07	50.59	32.84	20.77	337.93	56.13	46.32	11.05	337.93
Industrial Bauxite				Measured				Indicated				Inferred				Measured + Indicated + Inferred				
Project	% Ma'aden	Project Stage	Mine	Mt	% Al2O3	%TAA	% SiO2	Mt	% Al2O3	%TAA	% SiO2	Mt	% Al2O3	%TAA	% SiO2	Mt	% Al2O3	%TAA	% SiO2	red Mt Bauxite
Az Zabirah ML	100%	Mine	OP	6.90	50.80	35.20	18.00	17.10	51.50	35.40	18.50	6.30	52.30	36.20	18.60	30.30	51.51	35.52	18.41	30.30
Az Zabirah Central MLA	100%	Exploration	OP	7.00	50.80	35.20	18.00	6.00	52.30	36.20	18.60	39.00	57.40	47.10	11.80	52.00	55.92	44.24	13.42	52.00
Az Zabirah North EL	100%	Exploration	OP	-	-	-	-	73.10	50.50	37.70	14.70	9.00	50.10	35.10	17.30	82.10	50.46	37.41	14.99	82.10
Total				13.90	50.80	35.20	18.00	96.20	50.79	37.20	15.62	54.30	55.60	43.85	13.50	164.40	52.38	39.22	15.12	164.40
Kaolin				Measured				Indicated				Inferred				Measured + Indicated + Inferred				
Project	% Ma'aden	Project Stage	Mine	Mt	% Al2O3	%TAA	% SiO2	Mt	% Al2O3	%TAA	% SiO2	Mt	% Al2O3	%TAA	% SiO2	Mt	% Al2O3	%TAA	% SiO2	red Mt Kaolin
Az Zabirah ML	100%	Mine	OP	6.60	36.00	-	41.00	13.80	36.70	-	41.50	6.40	38.70	-	40.50	26.80	37.01	-	41.14	26.80
Az Zabirah Central MLA	100%	Exploration	OP	24.00	51.30	-	18.30	12.00	58.10	-	10.80	14.00	36.70	-	41.50	50.00	48.84	-	23.00	50.00
Az Zabirah North EL	100%	Exploration	OP	-	-	-	-	25.80	35.80	-	40.90	3.40	35.80	-	41.10	29.20	35.80	-	40.92	29.20
Total				30.60	48.00	-	23.20	51.60	41.23	-	34.06	23.80	37.11	-	41.17	106.00	42.26	-	32.52	106.00
Magnesite				Measured				Indicated				Inferred				Measured + Indicated + Inferred				
Project	Ma'aden %	Project Stage	Mine	Mt	% MgO	CaO%	% SiO2	Mt	% MgO	CaO%	% SiO2	Mt	% MgO	CaO%	% SiO2	Mt	% MgO	CaO%	% SiO2	red Mt MgO
Al Ghazalah ML	100%	Mine	OP	0.46	45.85	2.01	0.82	3.36	42.91	4.32	2.74	1.85	44.04	3.71	1.58	5.67	43.51	3.94	2.21	2.47
Jabal Rokham EL	100%	Exploration	OP	-	-	-	-	-	-	-	-	67.40	40.70	4.60	6.30	67.40	40.70	4.60	6.30	27.43
Total				0.46	45.85	2.01	0.82	3.36	42.91	4.32	2.74	69.25	40.79	4.58	6.17	73.07	40.92	4.55	5.98	29.90

ML: Mining Licence - MLA: Mining Licence Application - EL: Exploration Licence - OP: Open Pit mine
Mt: Million metric tonnes - P₂O₅: Phosphorus pentoxide - MgO: Magnesium oxide - SiO₂: Silicon dioxide
Al₂O₃: Aluminium oxide, also known as alumina - TAA: Total available alumina (Al2O3)



MINERAL RESOURCES - DECEMBER 2022

Report: Main or Equivalents				Main			
Gold							
Project	Ma'aden %	Project Stage	Mine				
Ad Duwayhi ML	100%	Mine	OP				
Bulghah ML	100%	Mine	OP				
Sukhaybarat ML	100%	Mine	OP				
As Suq ML	100%	Mine	OP				
Mansourah ML	100%	Mine	OP				
Massarah ML	100%	Mine	OP				
Humaymah ML	100%	Feasibility	OP				
Ar Rjum (Waseemah) ML	100%	Feasibility	OP				
Ar Rjum (Umm Naam + Ghazal) ML	100%	Feasibility	OP				
Bir Tawilah EL	100%	Exploration	OP				
Jabal Ghadarah EL	100%	Exploration	OP				
Total							

31 December 2022 Mineral Resources																		
2022	Measured				Indicated				Inferred				Measured + Indicated + Inferred					
	Mt	g/t Au	g/t Ag		Mt	g/t Au	g/t Ag		Mt	g/t Au	g/t Ag		Mt	g/t Au	g/t Ag	Contained	Moz Au	
	0.17	2.50	-	-	20.77	1.69	-	-	6.23	2.00	-	-	27.17	1.77	-	-	1.54	
	0.21	0.97	-	-	43.76	0.95	-	-	4.52	1.15	-	-	48.49	0.97	-	-	1.51	
	-	-	-	-	18.52	1.04	-	-	0.75	1.42	-	-	19.27	1.05	-	-	0.65	
	-	-	-	-	2.29	1.60	1.95	-	0.68	1.73	2.68	-	2.97	1.63	2.12	-	0.16	
	7.11	1.90	-	-	33.28	2.79	-	-	18.43	3.05	-	-	58.82	2.76	-	-	5.23	
	3.48	3.68	-	-	9.55	4.07	-	-	0.33	3.08	-	-	13.36	3.94	-	-	1.69	
	-	-	-	-	37.15	0.87	-	-	0.49	0.75	-	-	37.64	0.87	-	-	1.05	
	14.00	1.58	-	-	31.70	1.61	-	-	2.00	1.24	-	-	47.70	1.59	-	-	2.43	
	15.00	1.28	-	-	18.50	1.44	-	-	0.70	1.34	-	-	34.20	1.37	-	-	1.50	
	-	-	-	-	44.00	0.90	-	-	5.00	0.80	-	-	49.00	0.89	-	-	1.40	
	-	-	-	-	1.90	1.20	-	-	3.50	0.90	-	-	5.40	1.01	-	-	0.17	
	39.98	1.71	-	-	261.42	1.47	0.02	-	42.63	2.07	0.04	-	344.02	1.57	0.02	-	17.35	

Gold & Base Metals				Ma'aden %	Project Stage	Mine
Al Amar ML				100%	Mine	UG
Total						

Project				Ma'aden %	Project Stage	Mine
Mahd Ad Dhahab ML 'UG'				100%	Mine	UG
Mahd Ad Dhahab ML 'OP'				100%	Feasibility	OP
Total						

Project				Ma'aden %	Project Stage	Mine
Mahd Ad Dhahab ML 'UG'				100%	Mine	UG
Mahd Ad Dhahab ML 'OP'				100%	Feasibility	OP
Total						

Copper & Gold				Ma'aden %	Project Stage	Mine
Jabal Sayid ML				50%	Mine	UG
Total						

Measured				Indicated				Inferred				Measured + Indicated + Inferred				
Mt	g/t Au	% Cu	% Zn	Mt	g/t Au	% Cu	% Zn	Mt	g/t Au	% Cu	% Zn	Mt	g/t Au	% Cu	% Zn tained	Mt Cu
15.80	0.33	2.60	0.15	14.60	0.41	2.36	0.52	3.00	0.60	1.30	0.62	33.40	0.39	2.38	0.35	0.79
15.80	0.33	2.60	0.15	14.60	0.41	2.36	0.52	3.00	0.60	1.30	0.62	33.40	0.39	2.38	0.35	0.79

ML: Mining Licence - EL: Exploration Licence - UG: UnderGround mine - OP: Open Pit mine - Moz: Million troy ounces

Mt: Million metric tonnes - g/t: Grammes per tonne - Au: Gold - Cu: Copper - Zn: Zinc



MINERAL RESOURCES - DECEMBER 2022

Report: Main or Equivalents				Main			
Phosphate							
Project	Ma'aden %	Project Stage	Mine				
Al Jalamid ML	70%	Mine	OP				
Al Jalamid ELs	100%	Exploration	OP				
Total							
Project	Ma'aden %	Project Stage	Mine				
Al Khabra ML	60%	Mine	OP				
Umm Wu'al B6 ML	60%	Prefeasibility	OP				
Umm Wu'al B4-5 ML	100%	Prefeasibility	OP				
Umm Wu'al B10-11 ML	100%	Prefeasibility	OP				
Umm Wu'al EL	100%	Exploration	OP				
Total							

Metallurgical Bauxite							
Project	Ma'aden %	Project Stage	Mine				
Al Ba'itha ML	75%	Mine	OP				
Az Zabirah ML	75%	Mine	OP				
Az Zabirah Central MLA	100%	Exploration	OP				
Az Zabirah North EL	100%	Exploration	OP				
Total							

Industrial Bauxite							
Project	% Ma'aden	Project Stage	Mine				
Az Zabirah ML	100%	Mine	OP				
Az Zabirah Central MLA	100%	Exploration	OP				
Az Zabirah North EL	100%	Exploration	OP				
Total							

Kaolin							
Project	% Ma'aden	Project Stage	Mine				
Az Zabirah ML	100%	Mine	OP				
Az Zabirah Central MLA	100%	Exploration	OP				
Az Zabirah North EL	100%	Exploration	OP				
Total							

Magnesite							
Project	Ma'aden %	Project Stage	Mine				
Al Ghazalah ML	100%	Mine	OP				
Jabal Rokham EL	100%	Exploration	OP				
Total							

2022 - 2021 Variance				Mineral Resources 31 December 2021			
Annual Mineral Resource Change				Measured + Indicated + Inferred			
Mt	Contained Mt P2O5	% Change Mt P2O5		Mt	% P2O5	% MgO	Mt P2O5
(18.00)	(3.64)	(0.04)		482.00	18.33	5.26	88.37
-	-	-		1,689.00	16.78	6.52	283.40
(18.00)	(3.64)	(0.01)		2,171.00	17.12	6.24	371.77
Mt	Contained Mt P2O5	% Change Mt P2O5		Mt	% P2O5	% SiO2	Mt P2O5
(14.10)	(2.21)	(0.03)		398.00	16.39	10.10	65.23
-	-	-		473.00	16.70	2.20	78.99
-	-	-		423.00	16.73	2.66	70.76
-	-	-		281.00	18.78	9.07	52.77
498.50	79.05	0.16		3,275.00	15.10	8.10	494.53
484.40	76.84	0.10		4,850.00	15.72	7.27	762.28

Annual Mineral Resource Change				Measured + Indicated + Inferred			
Mt	Contained Mt bauxite	% Change Mt Bauxite		Mt	%TAA	% SiO2	Mt Bauxite
(4.27)	(4.27)	(0.02)		216.00	49.78	8.46	216.00
(0.90)	(0.90)	(0.02)		40.00	47.12	11.84	40.00
12.00	12.00	0.29		42.00	46.60	9.79	42.00
20.10	20.10	1.55		13.00	46.80	9.70	13.00
26.93	26.93	0.09		311.00	48.88	9.12	311.00

Annual Mineral Resource Change				Measured + Indicated + Inferred			
Mt	Contained Mt Bauxite	% Change Mt Bauxite		Mt	% Al2O3	% SiO2	Mt Bauxite
1.30	1.30	0.04		29.00	51.58	18.42	29.00
9.00	9.00	0.21		43.00	50.76	16.82	43.00
36.10	36.10	0.78		46.00	50.50	14.70	46.00
46.40	46.40	0.39		118.00	50.86	16.38	118.00

Annual Mineral Resource Change				Measured + Indicated + Inferred			
Mt	Contained Mt Kaolin	% Change Mt Kaolin		Mt	% Al2O3	% SiO2	Mt Kaolin
(4.20)	(4.20)	(0.14)		31.00	37.05	41.26	31.00
24.00	24.00	0.92		26.00	36.29	40.01	26.00
10.20	10.20	0.54		19.00	35.30	40.60	19.00
30.00	30.00	0.39		76.00	36.35	40.67	76.00

Annual Mineral Resource Change				Measured + Indicated + Inferred			
Mt	Contained Mt MgO	% Change Mt MgO		Mt	% MgO	% SiO2	Mt MgO
(0.19)	(0.10)	(0.04)		5.86	43.77	2.09	2.57
-	-	-		67.40	40.70	6.30	27.43
(0.19)	(0.10)	(0.00)		73.26	40.95	5.96	30.00

Mineral Resources 31 December 2020			
2020			
Measured + Indicated + Inferred			
Mt	% P2O5	% MgO	Mt P2O5
373.00	19.15	4.04	71.44
1,689.00	16.78	6.52	283.40
2,062.00	17.21	6.07	354.84
Mt	% P2O5	% SiO2	Mt P2O5
413.90	16.40	10.08	67.89
473.00	16.70	2.20	78.99
423.60	16.73	2.66	70.86
333.80	18.68	9.11	62.37
3,274.00	15.10	8.10	494.37
4,918.30	15.75	7.30	774.49

Mineral Resources 31 December 2019			
2019			
Measured + Indicated + Inferred			
Mt	% P2O5	% MgO	Mt P2O5
370.10	19.46	3.99	72.04
417.00	16.10	4.40	67.14
787.10	17.68	4.21	139.17
Mt	% P2O5	% SiO2	Mt P2O5
423.20	16.41	10.01	69.45
473.00	16.70	2.20	78.99
423.60	16.73	2.66	70.86
333.80	18.68	9.11	62.37
423.70	15.70	12.00	66.52
2,077.30	16.76	6.99	348.19

Measured + Indicated + Inferred			
Mt	%TAA	% SiO2	Mt Bauxite
234.00	49.80	8.49	234.00
40.00	47.12	11.84	40.00
42.00	46.60	9.79	42.00
13.00	46.80	9.70	13.00
329.00	48.95	9.11	329.00

Measured + Indicated + Inferred			
Mt	% Al2O3	% SiO2	Mt Bauxite
30.00	51.56	18.40	30.00
43.00	50.76	16.82	43.00
46.00	50.50	14.70	46.00
119.00	50.86	16.40	119.00

Measured + Indicated + Inferred			
Mt	% Al2O3	% SiO2	Mt Kaolin
31.00	37.05	41.26	31.00
26.00	36.29	40.01	26.00
19.00	35.30	40.60	19.00
76.00	36.35	40.67	76.00

Measured + Indicated + Inferred			
Mt	% MgO	% SiO2	Mt MgO
6.08	43.86	2.02	2.66
-	0	0	-
6.08	43.86	2.02	2.66

Measured + Indicated + Inferred			
Mt	% MgO	% SiO2	Mt MgO
5.94	43.80	2.05	2.60
-	0	0	-
5.94	43.80	2.05	2.60

ML: Mining Licence - MLA: Mining Licence Application - EL: Exploration Licence - OP: Open Pit mine - Moz: Million troy ounces
Mt: Million metric tonnes - P₂O₅: Phosphorus pentoxide - MgO: Magnesium oxide - SiO₂: Silicon dioxide



MINERAL RESOURCES - DECEMBER 2022

Report: Main or Equivalents				2022 - 2021 Variance			Mineral Resources 31 December 2021				Mineral Resources 31 December 2020				Mineral Resources 31 December 2019			
Main							2021				2020				2019			
Gold				Annual Mineral Resource Change			Measured + Indicated + Inferred				Measured + Indicated + Inferred				Measured + Indicated + Inferred			
Project	Ma'aden %	Project Stage	Mine	Mt	Contained Moz Au	% Change Moz Au	Mt	g/t Au	Moz Au		Mt	g/t Au	Moz Au		Mt	g/t Au	Moz Au	
Ad Duwayhi ML	100%	Mine	OP	(0.11)	(0.07)	(0.05)	27.28	1.84	-	1.62	29.10	1.78	-	1.66	24.34	1.99	-	1.56
Bulghah ML	100%	Mine	OP	(4.82)	(0.03)	(0.02)	53.30	0.90	-	1.54	61.80	0.90	-	1.79	82.17	0.93	-	2.45
Sukhaybarat ML	100%	Mine	OP	(0.73)	(0.07)	(0.09)	20.00	1.12	-	0.72	20.70	1.29	-	0.86	27.35	1.10	-	0.97
As Suq ML	100%	Mine	OP	(1.85)	(0.08)	(0.33)	4.82	1.49	2.34	0.23	9.93	1.37	2.66	0.44	9.31	1.45	2.78	0.43
Mansourah ML	100%	Mine	OP	9.02	1.95	0.59	49.80	2.05	-	3.28	49.80	2.05	-	3.28	43.70	2.22	-	3.12
Massarah ML	100%	Mine	OP	(33.54)	(0.63)	(0.27)	46.90	1.54	-	2.33	46.90	1.54	-	2.33	43.42	1.43	-	1.99
Humaymah ML	100%	Feasibility	OP	(0.06)	(0.04)	(0.04)	37.70	0.90	-	1.09	-	0	0	-	-	0	0	-
Ar Rjum (Waseemah) ML	100%	Feasibility	OP	-	-	-	47.70	1.59	-	2.43	47.70	1.59	-	2.43	47.70	1.59	-	2.43
Ar Rjum (Umm Naam + Ghazal) ML	100%	Feasibility	OP	-	-	-	34.20	1.37	-	1.50	34.20	1.37	-	1.50	34.20	1.37	-	1.50
Bir Tawilah EL	100%	Exploration	OP	-	(0.02)	(0.01)	49.00	0.90	-	1.42	42.30	0.69	-	0.94	50.00	0.85	-	1.36
Jabal Ghadarah EL	100%	Exploration	OP	(0.30)	(0.01)	(0.05)	5.70	1.00	-	0.18	4.80	0.98	-	0.15	5.70	1.01	-	0.18
Total				(32.38)	1.01	0.06	376.40	1.35	0.03	16.34	347.23	1.38	0.08	15.38	367.89	1.35	0.07	16.01
Gold & Base Metals				Mt	Contained Moz Au	% Change Moz Au	Mt	g/t Au	% Zn	Moz Au	Mt	g/t Au	% Zn	Moz Au	Mt	g/t Au	% Zn	Moz Au
Al Amar ML	100%	Mine	UG	0.37	(0.03)	(0.06)	3.22	4.77	4.39	0.49	3.35	4.77	4.47	0.51	3.03	4.78	5.39	0.47
Total				0.37	(0.03)	(0.06)	3.22	4.77	4.39	0.49	3.35	4.77	4.47	0.51	3.03	4.78	5.39	0.47
Project				Mt	Contained Moz Au	% Change Moz Au	Mt	g/t Au	% Cu	Moz Au	Mt	g/t Au	% Cu	Moz Au	Mt	g/t Au	% Cu	Moz Au
Mahd Ad Dhahab ML 'UG'	100%	Mine	UG	(0.05)	(0.02)	(0.01)	3.60	12.63	0.74	1.46	2.90	10.39	0.76	0.97	2.33	8.38	0.67	0.63
Mahd Ad Dhahab ML 'OP'	100%	Feasibility	OP	6.30	0.29	0.09	51.80	1.82	0.23	3.03	-	0	0	-	-	0	0	-
Total				6.25	0.27	0.06	55.40	2.52	0.26	4.49	2.90	10.39	0.76	0.97	2.33	8.38	0.67	0.63
Copper & Gold				Annual Mineral Resource Change			Measured + Indicated + Inferred				Measured + Indicated + Inferred				Measured + Indicated + Inferred			
Project	Ma'aden %	Project Stage	Mine	Mt	Mt Cu		Mt	% Cu	g/t Au	Mt Cu	Mt	% Cu	g/t Au	Mt Cu	Mt	% Cu	g/t Au	Mt Cu
Jabal Sayid ML	50%	Mine	UG	0.90	0.04	0.05	32.50	2.32	0.32	0.75	33.72	2.35	0.32	0.79	33.70	2.47	0.35	0.83
Total				0.90	0.04	0.05	32.50	2.32	0.32	0.75	33.72	2.35	0.32	0.79	33.70	2.47	0.35	0.83

ML: Mining Licence - EL: Exploration Licence - UG: UnderGround mine - OP: Open Pit mine - Moz: Million troy ounces
Mt: Million metric tonnes - g/t: Grammes per tonne - Au: Gold - Cu: Copper - Zn: Zinc



ORE RESERVES - DECEMBER 2022

Report: Main or Equivalents	Main		
Phosphate			
Project	Ma'aden %	Project Stage	Mine
Al Jalamid ML	70%	Mine	OP
Total			
Project	Ma'aden %	Project Stage	Mine
Al Khabra ML	60%	Mine	OP
Umm Wu'al B6 ML	60%	Prefeasibility	OP
Umm Wu'al B4-5 ML	100%	Prefeasibility	OP
Umm Wu'al B10-11 ML	100%	Prefeasibility	OP
Total			

Metallurgical Bauxite			
Project	Ma'aden %	Project Stage	Mine
Al Ba'itha ML	75%	Mine	OP
Total			

Industrial Bauxite			
Project	% Ma'aden	Project Stage	Mine
Az Zabirah ML	100%	Mine	OP
Total			

Kaolin			
Project	% Ma'aden	Project Stage	Mine
Az Zabirah ML	100%	Mine	OP
Total			

Magnesite			
Project	Ma'aden %	Project Stage	Mine
Al Ghazalah ML	100%	Mine	OP
Total			

31 December 2022 Ore Reserves																
2022																
Proved				Probable				Stockpiles				Proved + Probable				
Mt	%P ₂ O ₅	% MgO	% SiO ₂	Mt	% P ₂ O ₅	% MgO	% SiO ₂	Mt	% P ₂ O ₅	% MgO	% SiO ₂	Mt	% P ₂ O ₅	% MgO	% SiO ₂	ed Mt P ₂ O ₅
130.00	20.21	2.88	2.36	130.00	18.13	5.88	1.79	2.70	17.00	4.38	2.08	262.70	19.15	4.38	2.08	50.30
130.00	20.21	2.88	2.36	130.00	18.13	5.88	1.79	2.70	17.00	4.38	2.08	262.70	19.15	4.38	2.08	50.30
Mt	%P ₂ O ₅	% MgO	% SiO ₂	Mt	% P ₂ O ₅	% MgO	% SiO ₂	Mt	% P ₂ O ₅	% MgO	% SiO ₂	Mt	% P ₂ O ₅	% MgO	% SiO ₂	ed Mt P ₂ O ₅
265.00	17.00	-	10.00	95.00	16.00	-	10.00	-	-	-	-	360.00	16.74	-	10.00	60.25
-	-	-	-	280.00	16.20	0.20	2.30	-	-	-	-	280.00	16.20	0.20	2.30	45.36
189.00	15.80	-	2.60	145.00	15.40	-	3.00	-	-	-	-	334.00	15.63	-	2.77	52.19
-	-	-	-	59.00	18.80	-	2.70	-	-	-	-	59.00	18.80	-	2.70	11.09
454.00	16.50	-	6.92	579.00	16.23	0.10	3.78	-	0	0	0	1,033.00	16.35	0.05	5.16	168.89

Proved				Probable				Stockpiles				Proved + Probable				
Mt	% Al ₂ O ₃	%TAA	% SiO ₂	Mt	% Al ₂ O ₃	%TAA	% SiO ₂	Mt	% Al ₂ O ₃	%TAA	% SiO ₂	Mt	% Al ₂ O ₃	%TAA	% SiO ₂	d Mt Bauxite
68.50	57.40	50.00	8.10	123.50	55.90	46.70	10.40	-	-	-	-	192.00	56.44	47.88	9.58	192.00
68.50	57.40	50.00	8.10	123.50	55.90	46.70	10.40	-	0	0	0	192.00	56.44	47.88	9.58	192.00

Proved				Probable				Stockpiles				Proved + Probable				
Mt	% Al ₂ O ₃	%TAA	% SiO ₂	Mt	% Al ₂ O ₃	%TAA	% SiO ₂	Mt	% Al ₂ O ₃	%TAA	% SiO ₂	Mt	% Al ₂ O ₃	%TAA	% SiO ₂	d Mt Bauxite
5.40	53.70	40.20	15.00	9.85	53.90	41.30	16.20	-	-	-	-	15.25	53.83	40.91	15.78	15.25
5.40	53.70	40.20	15.00	9.85	53.90	41.30	16.20	-	0	0	0	15.25	53.83	40.91	15.78	15.25

Proved				Probable				Stockpiles				Proved + Probable				
Mt	% Al ₂ O ₃		% SiO ₂	Mt	% Al ₂ O ₃		% SiO ₂	Mt	% Al ₂ O ₃		% SiO ₂	Mt	% Al ₂ O ₃		% SiO ₂	ed Mt Kaolin
1.13	36.00	-	37.10	1.58	37.40	-	37.90	-	-	-	-	2.71	36.82	-	37.57	2.71
1.13	36.00	-	37.10	1.58	37.40	-	37.90	-	0	0	0	2.71	36.82	-	37.57	2.71

Proved				Probable				Stockpiles				Proved + Probable				
Mt	% MgO	CaO%	% SiO ₂	Mt	% MgO	CaO%	% SiO ₂	Mt	% MgO	CaO%	% SiO ₂	Mt	% MgO	CaO%	% SiO ₂	ned Mt MgO
0.10	47.02	0.93	0.28	0.10	47.21	0.99	0.80	-	-	-	-	0.20	47.12	0.96	0.54	0.09
0.10	47.02	0.93	0.28	0.10	47.21	0.99	0.80	-	0	0	0	0.20	47.12	0.96	0.54	0.09

ML: Mining Licence - OP: Open Pit mine - Moz: Million troy ounces Mt: Million metric tonnes

P₂O₅: Phosphorus pentoxide - MgO: Magnesium oxide - SiO₂: Silicon dioxideAl₂O₃: Aluminium oxide, also known as alumina - TAA: Total available alumina (Al₂O₃)



ORE RESERVES - DECEMBER 2022

Gold			
Project	Ma'aden %	Project Stage	Mine
Ad Duwayhi ML	100%	Mine	OP
Bulghah ML	100%	Mine	OP
Sukhaybarat ML	100%	Mine	OP
As Suq ML	100%	Mine	OP
Mansourah ML	100%	Mine	OP
Massarah ML	100%	Mine	OP
Ar Rjum (Waseemah) ML	100%	Feasibility	OP
Ar Rjum (Umm Naam + Ghazal) ML	100%	Feasibility	OP
Total			

Gold & Base Metals	Ma'aden %	Project Stage	Mine
Al Amar ML	100%	Mine	UG
Total			

Project	Ma'aden %	Project Stage	Mine
Mahd Ad Dhahab ML 'UG'	100%	Mine	UG
Mahd Ad Dhahab ML 'OP'	100%	Feasibility	OP
Total			

Copper & Gold			
Project	Ma'aden %	Project Stage	Mine
Jabal Sayid ML	50%	Mine	UG
Total			

31 December 2022 Ore Reserves																		
2022																		
Proved				Probable				Stockpiles				Proved + Probable						
Mt	g/t Au			Mt	g/t Au			Mt	g/t Au			Mt	g/t Au			Contained Moz Au		
0.17	2.20	-	-	19.30	1.34	-	-	-	-	-	-	19.46	1.35	-	-	0.84		
0.10	0.81	-	-	37.23	0.84	-	-	-	-	-	-	37.33	0.84	-	-	1.01		
-	-	-	-	15.22	0.95	-	-	-	-	-	-	15.22	0.95	-	-	0.46		
-	-	-	-	1.93	1.54	-	-	-	-	-	-	1.93	1.54	-	-	0.10		
-	-	-	-	36.57	2.58	-	-	-	-	-	-	36.57	2.58	-	-	3.03		
-	-	-	-	15.35	2.24	-	-	-	-	-	-	15.35	2.24	-	-	1.11		
13.30	1.56	-	-	21.00	1.57	-	-	-	-	-	-	34.30	1.57	-	-	1.73		
14.20	1.26	-	-	11.90	1.45	-	-	-	-	-	-	26.10	1.35	-	-	1.13		
27.77	1.41	-	-	158.50	1.60	-	-	-	0	0	0	186.26	1.57	-	-	9.41		

Mt	g/t Au	% Cu	% Zn	Mt	g/t Au	% Cu	% Zn	Mt	g/t Au	% Cu	% Zn	Mt	g/t Au	% Cu	% Zn	ined Moz Au		
-	-	-	-	0.33	4.90	0.40	3.70	-	-	-	-	0.33	4.90	0.40	3.70	0.05		
-	0	0	0	0.33	4.90	0.40	3.70	-	0	0	0	0.33	4.90	0.40	3.70	0.05		

Mt	g/t Au	% Cu	% Zn	Mt	g/t Au	% Cu	% Zn	Mt	g/t Au	% Cu	% Zn	Mt	g/t Au	% Cu	% Zn	ined Moz Au		
0.11	5.06	0.50	1.32	0.16	5.67	0.49	1.37	-	-	-	-	0.26	5.42	0.49	1.35	0.05		
11.91	2.63	0.27	0.79	14.11	1.88	0.23	0.60	-	-	-	-	26.02	2.22	0.25	0.69	1.86		
12.01	2.65	0.27	0.79	14.27	1.92	0.23	0.61	-	0	0	0	26.28	2.26	0.25	0.69	1.91		

Proved				Probable				Stockpiles				Proved + Probable						
Mt	g/t Au	% Cu	% Zn	Mt	g/t Au	% Cu	% Zn	Mt	g/t Au	% Cu	% Zn	Mt	g/t Au	% Cu	% Zn	tained Mt Cu		
11.80	0.21	2.25	0.18	15.10	0.39	2.28	0.51	-	-	-	-	26.90	0.31	2.27	0.37	0.61		
11.80	0.21	2.25	0.18	15.10	0.39	2.28	0.51	-	0	0	0	26.90	0.31	2.27	0.37	0.61		

ML: Mining Licence - UG: UnderGround mine - OP: Open Pit mine - Mt: Million metric tonnes
g/t: Grammes per tonne - Au: Gold - Cu: Copper - Zn: Zinc - Moz: Million troy ounces



ORE RESERVES - DECEMBER 2022

Report: Main or Equivalents				2022 - 2021 Variance			Ore Reserves 31 December 2021				Ore Reserves 31 December 2020				Ore Reserves 31 December 2019			
Main							2021				2020				2019			
Phosphate				Annual Ore Reserve Change			Proved + Probable				Proved + Probable				Proved + Probable			
Project	Ma'aden %	Project Stage	Mine	Mt	red Mt P ₂ O ₅	ge Mt P ₂ O ₅	Mt	% P ₂ O ₅	% MgO	Mt P ₂ O ₅	Mt	% P ₂ O ₅	% MgO	Mt P ₂ O ₅	Mt	% P ₂ O ₅	% MgO	Mt P ₂ O ₅
Al Jalamid ML	70%	Mine	OP	(10.30)	(2.41)	(0.05)	273.00	19.31	3.95	52.71	291.50	19.15	3.96	55.81	251.60	19.60	3.50	49.31
Total				(10.30)	(2.41)	(0.05)	273.00	19.31	3.95	52.71	291.50	19.15	3.96	55.81	251.60	19.60	3.50	49.31
Project	Ma'aden %	Project Stage	Mine	Mt	red Mt P ₂ O ₅	ge Mt P ₂ O ₅	Mt	% P ₂ O ₅	% SiO ₂	Mt P ₂ O ₅	Mt	% P ₂ O ₅	% SiO ₂	Mt P ₂ O ₅	Mt	% P ₂ O ₅	% SiO ₂	Mt P ₂ O ₅
Al Khabra ML	60%	Mine	OP	(12.00)	(2.02)	(0.03)	372.00	16.74	10.05	62.27	386.10	16.53	9.85	63.81	394.00	16.52	9.72	65.10
Umm Wu'al B6 ML	60%	Prefeasibility	OP	-	-	-	280.00	16.20	2.30	45.36	284.50	16.00	2.30	45.52	285.00	16.00	2.30	45.60
Umm Wu'al B4-5 ML	100%	Prefeasibility	OP	-	-	-	334.00	15.63	2.77	52.19	333.80	15.63	2.77	52.16	334.00	15.63	2.77	52.19
Umm Wu'al B10-11 ML	100%	Prefeasibility	OP	-	-	-	59.00	18.80	2.70	11.09	82.10	16.85	10.25	13.84	83.00	16.86	10.25	13.99
Total				(12.00)	(2.02)	(0.01)	1,045.00	16.36	5.23	170.91	1,086.50	16.14	5.73	175.33	1,096.00	16.14	5.72	176.88
Metallurgical Bauxite				Annual Ore Reserve Change			Proved + Probable				Proved + Probable				Proved + Probable			
Project	Ma'aden %	Project Stage	Mine	Mt	d Mt bauxite	e Mt Bauxite	Mt	%TAA	% SiO ₂	Mt Bauxite	Mt	%TAA	% SiO ₂	Mt Bauxite	Mt	%TAA	% SiO ₂	Mt Bauxite
Al Ba'itha ML	75%	Mine	OP	(4.10)	(4.10)	(0.02)	196.10	47.85	9.52	196.10	183.30	48.19	9.24	183.30	187.00	48.19	9.21	187.00
Total				(4.10)	(4.10)	(0.02)	196.10	47.85	9.52	196.10	183.30	48.19	9.24	183.30	187.00	48.19	9.21	187.00
Industrial Bauxite				Annual Ore Reserve Change			Proved + Probable				Proved + Probable				Proved + Probable			
Project	% Ma'aden	Project Stage	Mine	Mt	d Mt Bauxite	Mt Bauxite	Mt	% Al ₂ O ₃	% SiO ₂	Mt Bauxite	Mt	% Al ₂ O ₃	% SiO ₂	Mt Bauxite	Mt	% Al ₂ O ₃	% SiO ₂	Mt Bauxite
Az Zabirah ML	100%	Mine	OP	9.15	9.15	1.50	6.10	53.60	14.73	6.10	6.60	53.57	14.74	6.60	7.00	53.55	14.75	7.00
Total				9.15	9.15	1.50	6.10	53.60	14.73	6.10	6.60	53.57	14.74	6.60	7.00	53.55	14.75	7.00
Kaolin				Annual Ore Reserve Change			Proved + Probable				Proved + Probable				Proved + Probable			
Project	% Ma'aden	Project Stage	Mine	Mt	d Mt Kaolin	ge Mt Kaolin	Mt	% Al ₂ O ₃	% SiO ₂	Mt Kaolin	Mt	% Al ₂ O ₃	% SiO ₂	Mt Kaolin	Mt	% Al ₂ O ₃	% SiO ₂	Mt Kaolin
Az Zabirah ML	100%	Mine	OP	0.61	0.61	0.29	2.10	34.53	40.45	2.10	2.30	34.37	40.44	2.30	2.40	34.30	40.43	2.40
Total				0.61	0.61	0.29	2.10	34.53	40.45	2.10	2.30	34.37	40.44	2.30	2.40	34.30	40.43	2.40
Magnesite				Annual Ore Reserve Change			Proved + Probable				Proved + Probable				Proved + Probable			
Project	Ma'aden %	Project Stage	Mine	Mt	ned Mt MgO	nge Mt MgO	Mt	% MgO	% SiO ₂	Mt MgO	Mt	% MgO	% SiO ₂	Mt MgO	Mt	% MgO	% SiO ₂	Mt MgO
Al Ghazalah ML	100%	Mine	OP	(2.63)	(1.14)	(0.92)	2.83	43.59	2.30	1.23	3.05	43.78	2.18	1.33	2.91	43.67	2.25	1.27
Total				(2.63)	(1.14)	(0.92)	2.83	43.59	2.30	1.23	3.05	43.78	2.18	1.33	2.91	43.67	2.25	1.27

ML: Mining Licence - OP: Open Pit mine - Mt: Million metric tonnes P₂O₅: Phosphorus pentoxide
MgO: Magnesium oxide - SiO₂: Silicon dioxide

Al₂O₃: Aluminium oxide, also known as alumina - TAA: Total available alumina (Al₂O₃)



ORE RESERVES - DECEMBER 2022

Report: Main or Equivalents				2022 - 2021 Variance			Ore Reserves 31 December 2021				Ore Reserves 31 December 2020				Ore Reserves 31 December 2019			
Main							2021				2020				2019			
Gold				Annual Ore Reserve Change			Proved + Probable				Proved + Probable				Proved + Probable			
Project	Ma'a den %	Project Stage	Mine	Mt	ined Moz Au	inge Moz Au	Mt	g/t Au		Moz Au	Mt	g/t Au		Moz Au	Mt	g/t Au		Moz Au
Ad Duwayhi ML	100%	Mine	OP	(0.57)	(0.20)	(0.19)	20.03	1.62	-	1.04	21.25	1.65	-	1.13	15.27	2.20	-	1.08
Bulghah ML	100%	Mine	OP	4.33	0.10	0.10	33.00	0.86	-	0.91	40.70	0.80	-	1.05	52.42	0.87	-	1.47
Sukhaybarat ML	100%	Mine	OP	(3.78)	(0.13)	(0.22)	19.00	0.98	-	0.60	17.10	1.10	-	0.60	19.98	1.07	-	0.69
As Suq ML	100%	Mine	OP	(1.58)	(0.05)	(0.36)	3.51	1.32	-	0.15	6.62	1.31	-	0.28	6.15	1.50	-	0.30
Mansourah ML	100%	Mine	OP	8.87	0.76	0.34	27.70	2.55	-	2.27	27.70	2.56	-	2.28	27.70	2.53	-	2.26
Massarah ML	100%	Mine	OP	(1.85)	(0.01)	(0.01)	17.20	2.01	-	1.11	17.30	2.02	-	1.12	17.30	1.99	-	1.11
Ar Rjum (Waseemah) ML	100%	Feasibility	OP	-	-	-	34.30	1.57	-	1.73	34.30	1.57	-	1.73	34.30	1.57	-	1.73
Ar Rjum (Umm Naam + Ghazal) ML	100%	Feasibility	OP	-	-	-	26.10	1.35	-	1.13	26.10	1.35	-	1.13	26.10	1.35	-	1.13
Total				5.42	0.46	0.05	180.84	1.54	-	8.94	191.07	1.52	-	9.31	199.22	1.52	-	9.75
Gold & Base Metals							Mt ined Moz Au inge Moz Au				Mt g/t Au % Zn Moz Au				Mt g/t Au % Zn Moz Au			
Al Amar ML	100%	Mine	UG	(0.57)	(0.08)	(0.60)	0.90	4.50	3.80	0.13	1.23	4.00	3.70	0.16	1.52	3.81	4.00	0.19
Total				(0.57)	(0.08)	(0.60)	0.90	4.50	3.80	0.13	1.23	4.00	3.70	0.16	1.52	3.81	4.00	0.19
Project				Mt ined Moz Au inge Moz Au			Mt g/t Au % Cu Moz Au				Mt g/t Au % Cu Moz Au				Mt g/t Au % Cu Moz Au			
Mahd Ad Dhahab ML 'UG'	100%	Mine	UG	(0.22)	(0.02)	(0.33)	0.48	4.45	0.43	0.07	0.46	7.56	0.65	0.11	0.88	6.18	0.41	0.17
Mahd Ad Dhahab ML 'OP'	100%	Feasibility	OP	26.02	1.86	New	-	0	0	-	-	0	0	-	-	0	0	-
Total				25.80	1.84	26.73	0.48	4.45	0.43	0.07	0.46	7.56	0.65	0.11	0.88	6.18	0.41	0.17
Copper & Gold				Annual Ore Reserve Change			Proved + Probable				Proved + Probable				Proved + Probable			
Project	Ma'a den %	Project Stage	Mine	Mt	Mt Cu		Mt	% Cu	g/t Au	Mt Cu	Mt	% Cu	g/t Au	Mt Cu	Mt	% Cu	g/t Au	Mt Cu
Jabal Sayid ML	50%	Mine	UG	0.80	0.02	0.03	26.10	2.27	0.26	0.59	24.70	2.27	0.23	0.56	25.20	2.30	0.24	0.58
Total				0.80	0.02	0.03	26.10	2.27	0.26	0.59	24.70	2.27	0.23	0.56	25.20	2.30	0.24	0.58

ML: Mining Licence - UG: UnderGround mine - OP: Open Pit mine - Moz: Million troy ounces

Mt: Million metric tonnes - g/t: Grammes per tonne - Au: Gold - Cu: Copper - Zn: Zinc



Driving New Standards in Health and Safety

Best in Class EHSS Performing Organization

The safety of our staff and contractors is one of Ma'aden's principal drivers. Increasing safety awareness across our workforce is one of our primary goals.

In 2022, we continued our journey towards ever higher safety standards, identifying areas for improvement and implementing new processes and policies designed to keep our workforce safe.

Exploration and manufacturing in the mining industry can never be entirely risk-free but we are clear as a business that those risks must be minimized at every stage across our facilities, assets, the environment, and the community.

Sustained Improvements in EHSS Performance

Since establishing Ma'aden's Safety Culture Transformation Program (SCTP), we have maintained steady progress in improving safety across our operations.

During 2022, we have achieved:

- No Class 1 incidents were recorded at any Ma'aden facility.
- 35% reduction in 2022 AIFR compared to 2021 AIFR. 63% reduction in AIFR since 2019



Building Awareness of EHSS

In 2022, Ma'aden launched "Safety Always Wins," a Risk Identification Campaign. This is intended to raise awareness of the risks we face every day in the workplace and to encourage an environment where colleagues can prevent injuries and incidents through effective reporting.

As part of our Risk Identification Campaign, we launched the "Spot the Risk Activity" to encourage employees to spot the risk in three different visual scenarios and report the risk to their managers.

The activity promoted a culture of safety within the workplace by encouraging risk reporting, educating employees on common incidents, and making risk identification personal.

It also helped team members overcome their fear of reporting risks to management by rewarding the behaviour and highlighting its importance in maintaining a safe workplace.

The campaign is encouraging a culture where all colleagues identify, report, and mitigate risks.

The International Mining Safety Hub (IMS)

Ma'aden and other international mining companies have worked together to develop the Mining Safety Hub. This new resource gives access to all founding companies to material related to mining and safety.

The Hub is an online library of industry-endorsed, technically accurate, simplified, and visual safety resources which aim to break through language and literacy barriers to ensure the industry's diverse workforce understands the critical safety controls for working on-site.

Over 200 HSE tools specific to the mining industry are available on the Hub. For example, we have developed over 30 Visual Critical Controls and Audit Criteria that are free for all partners to share with no subscription needed.



Regulatory Compliance

Ma'aden completed an assessment based on the new environmental standards issued by the Ministry of Environment, Water, and Agriculture in 2022. We have now submitted our compliance plan to the lead authority, the National Centre for Environmental Compliance. The environmental monitoring and management plan has been updated to incorporate the new regulatory requirements.

Environmental Permitting

100% of Ma'aden business units and their regulated operational sites hold valid Environmental Permits to Operate. In addition, as a standard practice, all new projects are assessed for their impacts on the surrounding environment and go through an environmental regulatory permitting process involving independent experts with scrutiny of the project. Ma'aden also has an independent review mechanism for all stages of the project where internal subject matter experts and external consultants review the quality of projects at an early stage. Projects only progress to the next stage following independent expert advice.

100% of the Ma'aden business units and their regulated sites have comprehensive Environmental Impact Assessments (EIAs) conducted at an early stage of the project. These studies further expand as the project progresses to the next stages. The EIAs identify the impacts and recommend mitigation to overcome these impacts in the environmental monitoring and management plan. All the licensed mines and construction sites obtain Environmental Permit to Construct before commencing construction activity.



Environmental Monitoring Program

A comprehensive Environmental Monitoring Program is in place at all operational sites. This includes but is not limited to quarterly monitoring of air quality including point sources, water quality including groundwater and other water outfalls, soil quality, noise levels at sensitive receptors, and waste management. These periodical Environmental Monitoring Reports are regularly submitted to the relevant authorities.

2022 Performance

SafeSTEPS and the implementation of MSHEM standards are already having a measurable impact on achieving our KPIs in this area. We established SHER (EHSS Rate) & PSER (Process Safety Event Rate) as new KPIs to focus on all EHSS incidents and Process Safety incidents.

Visibility within the organization was enhanced around Regulatory Compliance issues such as notices of violations, penalties, Environmental Permit to Operate (EPO) validity, underground water results and remediation, and other sustainability KPIs.

Furthermore, KPIs for asset integrity have now been established by the Safety and Sustainability Board.

A suite of leading EHSS KPIs was established and made visible to the management to enhance focus on continuous improvements. In terms of the environment, Ma'aden received 6 notices of violations in 2022 and has responded to regulators with complete corrective plans. None of these violations resulted in any monetary fines or penalties.



Year-over-Year Performance

Year	2020	2021	2022
SHER (Safety, Security, Health and Environmental Rate)	1.41	1.04	0.46
AIFR (All injuries/ Illness Frequency Rate)	0.22	0.20	0.13
Severity Rate	2.82	3.08	0.74
Recordable Injury/Illness	48	49	33
HPIs	19	21	40

2022 Recordable Injuries

	Ma'aden Employees	Contractors	Total
Fatalities	0	0	0
Lost Time Injury	4	10	14
Restricted duty Injury	0	4	4
Medical Treatment Injury	2	13	15
TOTAL HSE Incidents (Reportable)	6	27	33

Environmental Performance

Year	2020	2021	2022
Notice of Environmental Violations	26	1	6
Environmental Penalties	0	1	0

Cybersecurity

In recent years, cybersecurity breaches have become increasingly common. This is particularly true in the mining sector which is particularly vulnerable to attack due to the levels of automation involved.

In addition, Ma'aden's wider transformation strategy and drive to increase efficiency and reduce environmental impact has resulted in increased use of technology, digital systems, and networks to monitor operations, control equipment, and analyze data. These systems are often interconnected, and any vulnerability in one area can have a cascading effect on others.

Ma'aden is acutely aware that whilst new technology can drive business efficiency, it can also present new challenges. As the world becomes more digitally connected, cyber threats are constantly increasing.

In 2022, we increased our cybersecurity resilience to deal with potential new threats. We renewed ISO 27001 certification for the third year in a row and achieved 97% compliance with National Cybersecurity Authority mandates. We also launched Ma'aden's Cybersecurity Compliance Assessment which ensures and assesses the level of compliance with Ma'aden's cybersecurity policy across every area of the business.

In addition, we invested in a range of technologies that utilize Artificial Intelligence to improve our resilience, carried out a 100% upgrade to Information Technology infrastructure, and continued enhancing our awareness and training programs to build Cyber-capabilities across Ma'aden.

Safeguarding our systems is a key priority for the business. In response to the increasing level of cyber threats, and their growing sophistication, Ma'aden has developed and implemented a proactive plan detailing Ma'aden's policies, procedures, and technical measures to protect against cyber-attacks. This plan also provides a framework for identifying, assessing, mitigating, and responding to risks, including those arising from internal and external sources.

Key Achievements

2022 was a year when the strategy, policies, and safeguards that Ma'aden put in place led to increased cyber-resilience that prevented breaches and ensured that we were compliant with regulatory requirements.

We continued to invest in building the skills and capacity of our team to ensure that we are well-positioned to remain agile and respond to future emerging threats to protect the interests of Ma'aden, our customers, and our stakeholders. The business has achieved 100% Saudization in Cybersecurity in-line with the national mandates and directions. Additionally, the number of women employed in this part of the business is now over 33%, exceeding our target.



Planning for Tomorrow

Background

As we seek to drive further transformation in our business, we are expanding the way that we use new technologies in our mining, exploration, and production activities. We are also integrating new approaches to support our staff and to change the way that we work as a business.

Digitalization has already been developed to optimize our operations, engage with our customers, and drive growth. We continue to explore the potential of emerging technologies and intensify R&D efforts to disrupt the global mining industry. By remaining at the forefront of new advances, we aim to increase our competitive advantage and position Ma'aden for further growth.

During 2022, we harnessed the power of new technologies to enhance our business processes and create value for our customers. For a business like Ma'aden, innovation and technological transformation is not just a necessity, but an opportunity to drive growth.

That is why we are committed to fostering a culture of innovation that will enable us to thrive in the decades ahead.

Technology & Innovation (T&I)

Ma'aden has set up the Technology, and Innovation (T&I) function to lead innovation, maximize value, and enable Ma'aden's 2040 strategy.

In the implementation journey, Ma'aden has identified key enablers of People, Processes, Platforms, and Partnerships to fuel innovation and accelerate the execution of technology pilots across a spectrum of strategic themes and industry sectors.





People:

Over the past year, Ma'aden augmented its workforce and enriched core competencies by positioning highly qualified personnel with expertise in emerging fields such as R&D, mining and processing, and sustainability technology. Thereby, actively enhancing technological capabilities, R&D, and innovation proficiencies by integrating essential human skills across the entire value chain.

Platforms:

Ma'aden is in the process of implementing an all-encompassing innovation management platform, customized in accordance with the industry's preeminent innovation stage-gate practices, to facilitate end-to-end management of the innovation portfolio. This will enable crowdsourcing ideas from both internal and external stakeholders, acting as a centralized repository of information and a definitive source of truth for all innovation initiatives across Ma'aden.

Process:

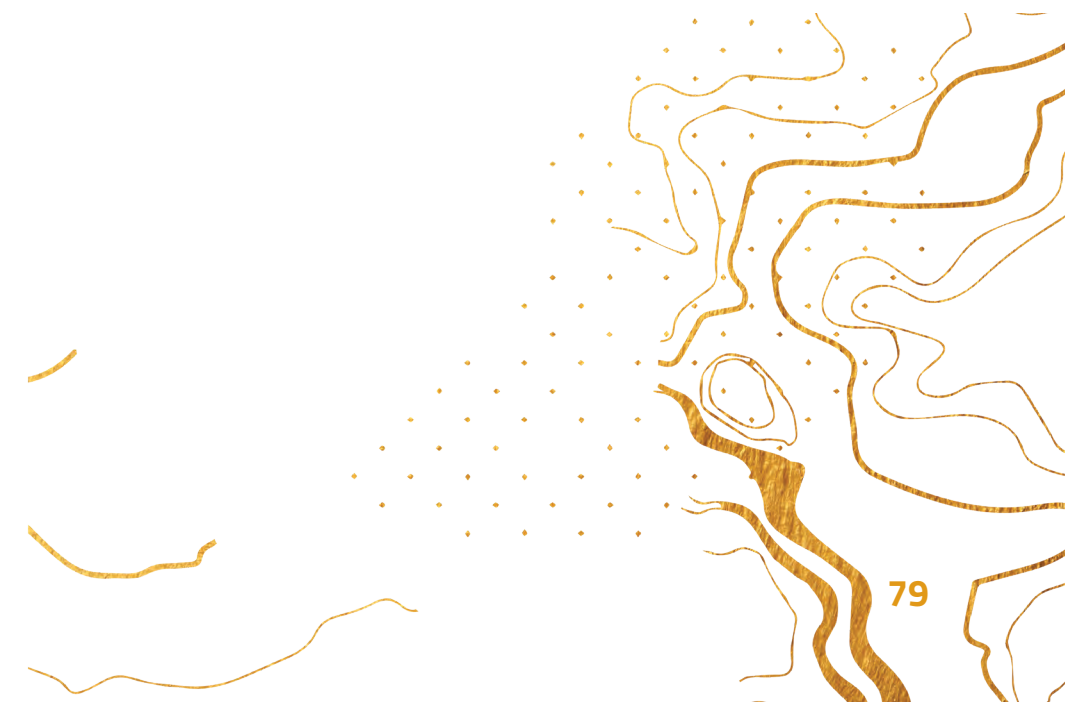
To facilitate the efficient governance of innovation opportunities, we have designed and implemented an innovation stage-gate process to support the innovation portfolio by de-risking the adoption of emerging and mature technologies via our delivery models in designated business focus areas.

Partnerships:

Ma'aden is building a comprehensive and resilient partnership ecosystem to accelerate its innovation endeavours and fulfill the organizational aspiration of accessing specialized expertise in R&D, optimizing costs, and safeguarding intellectual capital. We have curated a roster of key partners, selected based on both the immediate and long-term objectives, from an extensively pre-screened and diverse pool, encompassing universities, industrial partners, venture partners, and R&D centres both in the kingdom and outside.

We have pioneered the use of many new and innovative technologies that are transforming the way we work. As we move forward, our sights remain set on uncovering additional value-adding avenues through the integration of innovative solutions.

Our focus encompasses both mature and emerging technologies such as 3D printing, AI-powered material image recognition systems, intelligent exploration using drones, photon assaying, and electrification of haul trucks, to name a few. This diversified approach ensures we maintain a robust technology portfolio, equipping Ma'aden with an effective hedge against an ever-evolving competitive landscape.





Below are a few innovative technologies and their transformative benefits which we are exploring under our strategic pillars:

Leverage KSA Resources

Under our strategic pillar of leveraging KSA resources, we are expediting our exploration activities using passive seismic survey techniques and advanced core scanning technologies. These groundbreaking tools help us gain detailed subsurface information and comprehensive drill core analyses, contributing to efficient exploration and consolidating our vision for the future.

Productivity Drive

In our endeavor to boost productivity, we are strategically employing and exploring technologies that drive efficiency and growth. Technologies such as 3D printing, private LTE for mines, advanced grinding methodologies, drone technology for surveys, and artificial intelligence will not just shape our productivity today but also lay a resilient foundation for our future. We are minimizing costs with local production of spare parts via 3D printing, enhancing remote data management, and nurturing a technology-adept workforce through our "Road to AI" initiative.

Value Focus

In our pursuit of value-centric innovation, we are exploring technologies to create differentiated, customer-oriented products. We are probing novel fertilizer technologies, and the use of micro-nutrients to enhance & optimize agricultural efficiency. We are also researching high-purity Aluminium production, innovative alloys, and digital tools for precision agriculture. Our aim is to align with market shifts, provide superior quality, and enhance Ma'aden's value proposition, reinforcing our industry leadership.

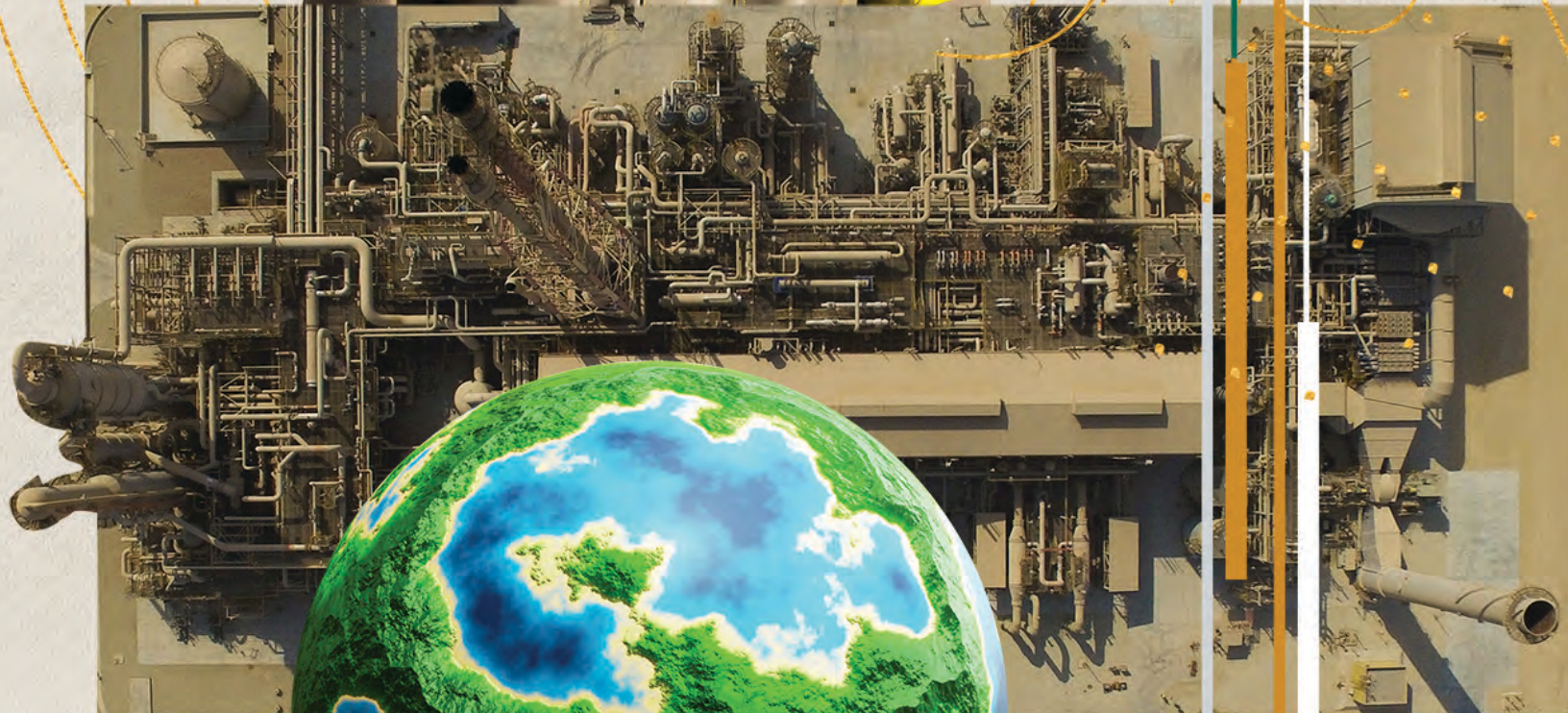
ESG Stewardship

Our commitment to ESG stewardship is mirrored in our exploration of technologies focused on decarbonization and health and safety management. To reduce our carbon footprint, we are exploring technologies for CO2 capture, emission reduction, and electrification of our fleet.

Concurrently, we are committed to reinforcing safety in our mining operations and there are plans to pilot advanced solutions like operator alertness systems, collision avoidance systems, and early sinkhole detection methods.



03



**PROTECTING
PEOPLE,
PLACES AND
PLANET**



Our People and Our Systems

Ma'aden Team: Investing in Our Employees

The quality of our people is the cornerstone of Ma'aden's success. Our employees are the driving force behind the organization's continuing growth.

Our talented and motivated workforce brings a set of skills that enable us to serve customers and stakeholders and make the biggest impact on the people and communities of Saudi Arabia.

In 2022, we have continued to invest in our team to support the delivery of our business objectives.

We are focused not just on the number of employees, but on the quality of those employees. Hiring the right people, providing them with training and development opportunities, and creating a positive and inclusive work environment are delivering higher productivity, lower turnover rates, and increased profitability. This is the result of a set of comprehensive recruitment and retention strategies, employee training and development programs, and our commitment to creating a diverse and inclusive workplace culture.

Ma'aden will continue to invest in our employees, we aim to build a talented and motivated workforce that can help us achieve our business objectives and continue to drive growth and success in the years ahead.



Our Approach

Ma'aden recognizes that our long-term success depends on our people. They are the business's most valuable asset. Our HR approach is focused on building capability, succession planning and attracting employees of the highest calibre while putting strategies in place to retain high-performing individuals.





Our People in Numbers

We now have 6,311 direct employees, with 188 female employees. It is also a young workforce, with an average age of 35 years old. 79% of the workforce are Saudi nationals and 87% work in remote areas. 1,027 Contractor employees on board by end of 2022. 89% Of new hires are Saudi nationals. Attrition at 5.8% across Ma'aden.

We now have
6,311
direct employees

188
female employees

1,027
Contractor employees on board by end of 2022



of the workforce are Saudi nationals



Of new hires are Saudi nationals

3,027 of our employees
attended different training programs



3,066
Mine Workers



689
Mine Supervisors / Superintendents



564
Engineers and Geologist



199
Subsidiary Management



287
Corporate Management



1,088
Administrative Staff



409
Security Officer



1,027
Contractors



Gender Distribution

of female employees

188

3.05 % are in leadership position

of male employees

6,123



Engagement and Rewards

Ma'aden is on a journey to become an Employer of Choice that can attract and retain the very best talent from within Saudi and globally. The leadership of the company supports employees to advance in their careers by offering leadership training, team-building workshops, and free college courses. We're committed to enhancing the lives of our team and helping them grow as people and as professionals.

In 2022, we continued this journey by enhancing our employee value proposition. This has been focused on rolling out new/ enhanced benefits and allowances, expanding the KUFU recognition program, and introducing Flexible Working Arrangements to enable staff to achieve a work-life balance.

Taken together, this approach is fostering a caring corporate culture and gives our people the confidence, security, and space to realize their aspirations. This will help Ma'aden attract, retain, and develop talent, and support the achievement of our goal to be one of the best world-class employers in the global mining sector.



Environmental, Social, and Governance (ESG)



Every aspect of our business is developed in a way that contributes toward Ma'aden becoming a role model in the Kingdom for ESG (Environmental, Social, and Governance).

We have implemented several measures in 2022 to strengthen our approach to ESG issues, including initiatives to address environmental impact, local content, biodiversity, and community support.

Demonstrating leadership in ESG will ultimately give Ma'aden a competitive advantage in a dynamic market. Additionally, good sustainable practices will deliver increased efficiency, reduced costs, and improved profitability.

A Leader in ESG

Ma'aden has the ambition to be a global leader in the mining sector when it comes to ESG and sustainability. As a large-scale mining company, Ma'aden is aware of the significant impact our operations can have on the environment, the communities we operate in, and the long-term sustainability of our business.

Therefore, we are committed to operating responsibly and sustainably, minimizing our environmental footprint, and creating long-term value for our stakeholders. We want our sector to move from being part of the problem of climate change to being part of the solution.

And our ambition goes beyond driving sustainability in the way that we work.

We are also clear that mining as a sector has a critical role to play in supporting Vision 2030's goal of net zero by 2060. Ma'aden itself has committed to carbon neutrality by 2050. The metals and minerals that are essential for new technologies need to be extracted responsibly and sustainably to support the transition to new technologies.

By embracing sustainability, we will achieve our business objectives while minimizing our impact on the environment and contributing to the long-term sustainability of our operations.



Ma'aden Sustainability Framework

Ma'aden has been strengthening its sustainability strategy since 2015. In 2020, we launched a new company wide Sustainability Framework. This Framework, which adopts leading global standards and practices, has been integrated across all business units.

The Framework sets out a roadmap to address eight major sustainability goals including health safety and security, water stewardship, climate change, biodiversity, and materials management.

In pursuing these goals, Ma'aden has adopted a leadership model that inspires a culture of sustainability internally and creates informed leaders who can actively represent the company as sustainability champions.

We are also open and transparent in reporting on the progress we are making – issuing an independently assured annual sustainability report in line with Global Reporting Initiative standards.

Environmental Performance

Environmental protection is a key consideration in every decision Ma'aden takes. We take our responsibilities seriously when it comes to the environment, delivering our operations in a way that minimizes and mitigates any negative environmental impact.

We are committed to sustainable environmental management of our operations and projects. We have also set specific strategic goals to reduce CO2 emissions, reduce water and energy consumption, and increase recycling.



Energy Usage and GHG Emissions

At Ma'aden, we recognize the responsibility the business has to minimize the impact of our activities on the wider environment. The Saudi mining industry can only deliver for the Kingdom if it has a long-term and sustainable operating model that balances economic, environmental, and social outcomes. Ma'aden is committed to reducing greenhouse gas (GHG) emissions across our entire value chain. To support this, the business has agreed a set of high-priority business goals, including minimizing emissions, reducing leaks, and making more efficient use of all energy sources throughout its operations.

KPIs	Intensities	% Reduction vs. 2020 (baseline)
GHG tCO2e/t Production	1.03	-13.6%
Energy GJ/t Production	9.22	-6.4%



Carbon Offsetting

Climate change is having a significant impact on Saudi Arabia's natural and business environment.

As part of our efforts to support the fight against climate change, Ma'aden has planted more than 3 million trees in an area larger than nine million cubic meters as part of the "Wadi Al Mera" initiative over the last five years.

In 2022, we went further, signing a Memorandum of Understanding (MoU) with the National Center for Vegetation Development and Combatting Desertification to strengthen cooperation to plant trees and develop the Kingdom's natural vegetation.

Under the terms of the memorandum, Ma'aden and the Center will discuss continuing efforts to achieve common goals for the development and rehabilitation of vegetation. To achieve those, we will support biodiversity by planting 20 million trees by 2040.





Biodiversity

Responsible mining and processing operations operate in harmony with local natural ecosystems.

Ma'aden actively works to mitigate or compensate for ecological damage wherever necessary. We are dedicated to maintaining or improving the quality of land, water, and natural ecosystems everywhere we do business.

Ma'aden is addressing biodiversity and ecological aspects of its work through the development of sound risk and impact policies and practices. These policies consider the full life cycle of projects, from site prospecting through to site closure, ensuring that environmental risk is identified and mitigated at every stage.

Our Biodiversity Management standard applies to our affiliates to anticipate and mitigate impacts on biodiversity at all stages in the mining value chain. These include exploration, project development, operations (including transport routes and associated infrastructure), and closure.

King Salman Natural Reserve

Ma'aden has a long-standing collaborative relationship with King Salman Bin Abdulaziz Royal Natural Reserve Development Authority.

This involves hosting events of common interest, working together to research the impact of mining activities inside the reserve, and collaborating to sponsor environmental and tourist initiatives.

In March 2022, the reserve started planting 500,000 tree seedlings in the reserve's lands, which includes 400,000 seedlings in Jubbah and 100,000 in Al-Tubayq.

As a result of the strong relationship that exists between Ma'aden and King Salman Bin Abdulaziz Royal Natural Reserve, we have completed planting 100,000 trees in 2022.

Water Stewardship

Water Stewardship relates to water consumption, usage efficiency, quality, and wastewater discharge in Ma'aden's operations and the awareness of these practices in the communities where we operate.

Each affiliate is empowered and encouraged to contribute to Ma'aden's Water Stewardship goal in the way that is most effective for its operations within the context of overarching business-wide goals.

In partnership with National Water Company (NWC), Ma'aden has been developing infrastructure to supply our industrial complexes in Wa'ad Al-Shamal with treated sanitary effluent from treatment facilities through over 300 Km water pipeline.

Alongside our efforts to minimize the risk of water scarcity, Ma'aden also adheres to the highest viable water quality standards. This ensures that the water systems of our neighbouring communities are not affected by effluents discharged through our business activities.

2022 Performance

	Unit	2020	2021	2022
Groundwater	m3 / t Production	2.71	2.92	2.68





Reducing Water Usage

In 2022, we expanded upon the partnership with NWC by signing a water usage MOU for one of our phosphate mining affiliates in the Wa'ad Al Shamal industrial complex - MWSPC - to provide its phosphate operations with treated wastewater.

This project is scheduled for completion in 2023 and will provide most of the water required for existing facilities 50% of operational water demand in MWSPC will be met by the treated water, once completed. This is forecast to reduce Ma'aden's need for groundwater by 35% once completed.

This is forecast to reduce Ma'aden's need for groundwater by

35%
once completed



Local Content: Tharwah

A central part of Ma'aden's approach is to increase our connection with, and contribution to, local communities and businesses.

In 2022, Ma'aden strengthened its approach in this area with the launch of its Tharwah Program during the inaugural Local Content Forum in Riyadh.

The Tharwah Program has a clear vision to, "maximize the contribution of the mining industry to the Kingdom of Saudi Arabia through spend on Saudi components within labor, goods, services, assets & technology."

This new Program is focused on maximizing the contribution of the mining industry to the Saudi Arabian economy in line with Vision 2030. It will support local business growth, ensure that Ma'aden's spend is benefiting local communities, and focus on creating high-value employment for the people of the Kingdom.

To achieve this Tharwah will focus on creating new jobs, supporting businesses, particularly SMEs, initiatives in remote areas and developing local supply chains.

Ma'aden is also targeting capital investments of up to

SAR 246 billion



Key Local Content Achievements in 2022

- Ma'aden's overall LC score has increased by **1.5%** in 2022 compared to 2021 (from 44.1% to 45.6%)

- Local Content contribution to the KSA economy has increased by 1.9b SAR (from 7.1b SAR to 9.0b SAR) compared to 2021.

- 45.6%** for the total company and **35.8%** for the supply chain.

- In 2022, Supply Chain spend increased **33%** compared to 2021 (from 14.5b to 19.3b), accounting for 77% of the total relevant spend used for the Local Content calculation.

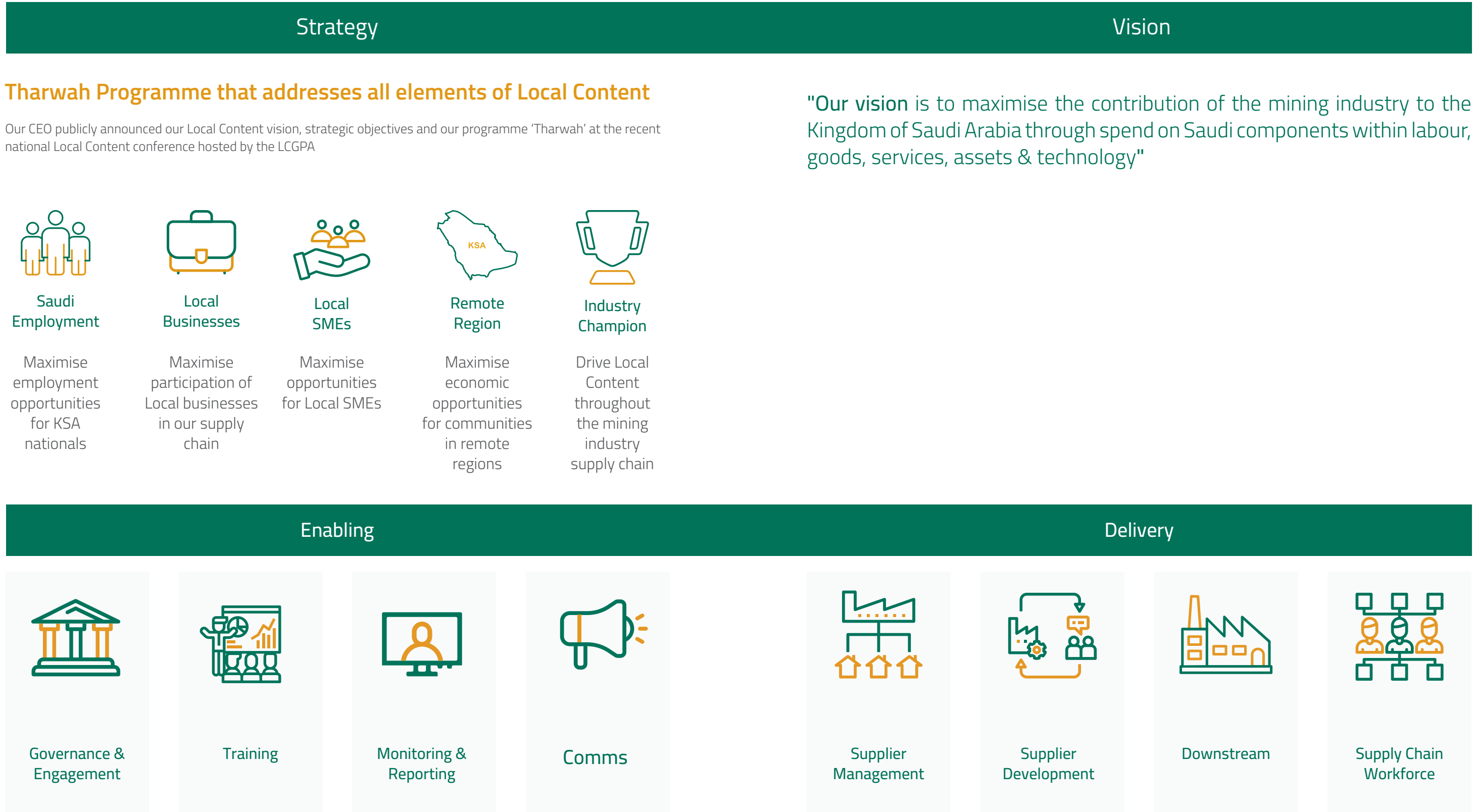
- The Mansourah Massarah project is on track to meet the overall project target in Local Content, SME, and Saudization.

- Ma'aden became a core member and participant in the Voluntary Carbon Market initiative.

- Ma'aden obtained certification for the supply of Blue Ammonia which has a much lower carbon impact than traditional ammonia.



Ma'aden's LC Operating Model



The operating model represents all local content activities required to deliver Ma'aden's Vision

04



**SUPPORTING
COMMUNITIES**

Background

Ma'aden is a responsible corporate citizen. Wherever we operate, we have a clear set of values that seek to respect the people and communities where we work.

All of Ma'aden's operations, and all activities of affiliates, are integrated with community engagement, development, and social performance programs. This positions the company as a catalyst for growth in the Kingdom and supports the needs of our host communities, in line with Vision 2030.

Ma'aden has implemented a robust assurance process to evaluate how well our affiliates are implementing the CMS and adhering to our company-wide standards. Ma'aden and its affiliates will strive to keep improving social performance. To achieve this aspiration, we have distilled several practical lessons from this year's affiliate social performance assurance process. These include improvements to how we collaborate with stakeholders, understand long-term local needs, have resource-effective engagement, and build local capacity.

As we move into 2023, we will implement this learning, leading to further improvements and impacts at a local community level.

School of Excellence Program

The School of Excellence program is our flagship community engagement program.

Launched in 2016 through a partnership between MWSPC and the Ministry of Education, the program aims to provide high-quality education to students in the Northern Borders Region (NBR), Saudi Arabia's least populated region.

The program consists of two high schools, one in Ar'ar (the Region's capital) and another in Turaif, operated by the Dhahran Techno Valley Company.

The Ministry of Education provides the school buildings, curricula, policies, standards for achievement, and school leaders, and MWSPC overlooks the quality of operations and outcomes. Ma'aden also funds all additional expenses incurred, including students' tuition fees and upgrades to school facilities including gyms, swimming pools, and STEM (Science, Technology, Engineering, Engineering, and Mathematics) labs.

Since its launch, Ma'aden has invested a total of

SAR 158 million

into the program,

providing high-quality educational and professional opportunities in one of the Kingdom's remotest regions.

Working in Partnership

Key to Ma'aden's success in ESG and sustainability is developing strong partnerships with government entities and other organizations to maximize the impact of what we do as a business.

In 2022, we forged a number of new formal partnerships to ensure that we are collaborating to deliver shared goals with organizations that share our aims and values.

- Ma'aden signed an MOU with the National Center for Vegetation Cover and Combating Desertification. This will support biodiversity goals by planting additional 20 million trees by 2040, as part of our engagement in the Saudi Green Initiative.
- Ma'aden and the International Fertilizer Development Center (IFDC) signed an MOU to collaborate on research and development of fertilizers, that can better serve the global fertilizer market and contribute to food security.
- Attended by His Excellency Minister of Industry and Mineral Resources and Indian Minister of Chemicals and Fertilizers, Ma'aden signed 4 MOUs with India's largest fertilizer companies to increase phosphate fertilizer and ammonia exports to India.
- Ma'aden CEO and SWCC KSA governor signed an MOU during the FDI Conference, to promote research collaboration related to technologies for extracting minerals from brine and sustainable technologies such as renewable energy.
- Ma'aden signed a memorandum of understanding with King Salman Bin Abdulaziz Royal Reserve to study the improvement of the sustainable environment during mining work within the reserves. The MOU also establishes a partnership that will support environmental and tourism initiatives.



Moving Forward

As Ma'aden moves forward into 2023, we have a strong basis in place to strengthen our approach to environmental protection, energy usage, water stewardship, and community engagement.

The business, our board, and our stakeholders are increasingly clear that sustainability must be at the core of Ma'aden's future operations. By prioritizing ESG considerations not only will Ma'aden help deliver a carbon-neutral future, but we will also maintain a competitive edge in a highly competitive market.

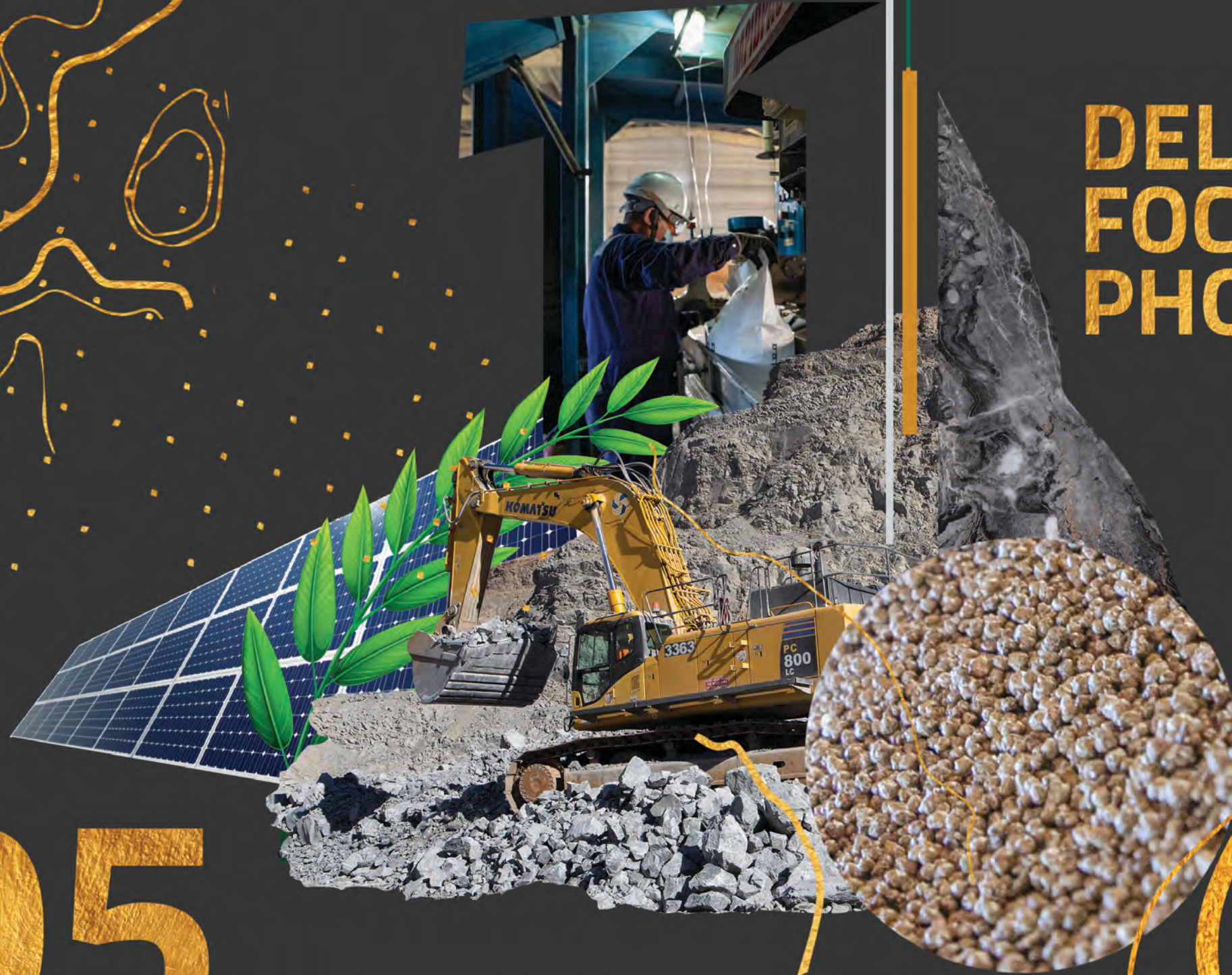
That is why Ma'aden will continue to develop a more holistic approach to our operations, placing sustainability and ESG considerations at the heart of our strategies.

This will enable us to reduce carbon emissions, reduce waste, prioritize worker safety, and engage with local communities to ensure that their operations are mutually beneficial.



DELIVERY: FOCUS ON PHOSPHATES

05





Background

Ma'aden phosphates are critical for food security all over the world.

Since beginning the commercial production of fertilizers in 2011, Ma'aden has grown to become the world's second-largest exporter of phosphate-based fertilizers. This helps hundreds of millions of people across the planet meet their food requirements.

Ma'aden is one of the world's largest producers of phosphates, responsible for 18% of global annual trade. We are committed to ensuring global food security and empowering farmers by providing high-quality products that improve crop quality and yield.

Ma'aden long-term strategy was shaped with very clear goals which have led to sustainable growth in sales and penetration of all major markets. This continued in 2022.

Ma'aden's achievements are backed by a tailored regional strategy which places customer needs at the heart of everything that we do.

This growth has been underpinned by the high quality of our fertilizer products. The natural resources available in Saudi Arabia mean that Ma'aden fertilizer products are some of the purest available on the market, with very low levels of heavy metals. This, along with our locational advantage and the quality of Saudi Arabia's infrastructure, has helped Ma'aden become a preferred supplier in many key agricultural markets including South Asia and East Africa.

Over the past decade, our investments in the production and supply of phosphate in Saudi Arabia have contributed significantly to the national economy, creating thousands of jobs, and producing millions of tons of products that have helped cultivate diverse crops around the world.

With Phosphate 3, Ma'aden is continuing its journey of developing the north region around its phosphate reserves and contributing to community development, job creation, and the local economy – enhancing the quality of life for local people through investment, education, and health initiatives.

Ma'aden is one of the world's largest producers of phosphates, responsible

for **18%**

of global annual trade



The Global Market

2022 was a record year for fertilizers and raw materials prices after 2008. The KSA price for DAP and ammonia were at an all-time high in 2022.

The phosphate market has experienced significant fluctuation in 2022. Adverse weather conditions and inflationary pressure in key markets marred fertilizer demand notably in 2022. Demand dropped by ~8% globally.

However, the Russian war in Ukraine, export restrictions on Chinese fertilizers aided the fertilizer prices to skyrocket further in 2022 peaking mid-year.

The war and the retaliatory sanctions placed on Russia and Belarus had a disruptive effect on fertilizer supply chains. Supply pressure increased further as the Chinese government introduced quotas to control exports. However, supply from Morocco and Saudi Arabia partially offset the low exports from China to meet global demand. Insufficient supply from China and increasing crop prices supported the fertilizer and raw material prices in the first half despite reduced demand in key regions.

One exception was India. India imported significantly more phosphates than in the previous year reflecting low inventory levels. The Indian government injected a record level of financial support through its subsidy system to ensure a smooth supply.

The USA inventory levels also rose due to a poor fall season, leading to a reduced appetite for imports. Brazil imported heavily in the first half. Inventory levels soared as affordability dropped, wiping off any Brazil demand in the second half. Other key markets such as Pakistan and Bangladesh also struggled with demand due to economic conditions. Pakistan suffered higher demand loss due to the devastating flood.

Inventories built across key markets by the end of the second resulted in a reduction in phosphate prices from June. Following this, the dwindling Chinese phosphate production reduced the sulfur demand, leading to a drop in sulfur prices. The price correction in fertilizer led to improved affordability in some markets and avoided any sharp reduction in prices.

Ammonia prices remained high in 2022 mainly due to the massive reduction of Russian exports by around 90% and high natural gas prices in Europe.



Key Achievements

Ma'aden's position has continued to increase year on year. In 2022, key achievements include:

- Diversifying our product base to become one of the first certified producers of blue ammonia. Following certification, we exported a large volume of this product to South Korea. This is a milestone in our journey to reach net-zero emissions by 2050.
- Successfully certified to export 138,000 tons of blue ammonia, one of the largest certified volumes in the world to date. This unlocks potential in a large new market "energy sector" with unprecedented potential opportunities in terms of market size and profitability.
- Our phosphate and ammonia businesses continue to achieve success due to both the high quality of our products and our unwavering focus on understanding and responding to the needs of current and future customers. We achieved increased sales of 29% in India, 18% in Brazil, 28% in Bangladesh, and 43% in East Africa.
- We deployed an additional 900kt Ammonia (MFC Ammonia) to the global market, marking Ma'aden as the largest supplier in the world. Total exports were around 1.9 Mt.
- We maintained our strategic position and strengthened our position as the largest ammonia exporter in East or Suez and further penetrated the Europe market.

We achieved increased sales of

29%
in India

18%
in Brazil

28%
in Bangladesh

43%
in East Africa

Moving Forward to 2023

The phosphate business moves into 2023 with confidence and optimism.

Ma'aden has massive scope for expansion with the potential to grow production by nearly 50% in the coming years, through multiple initiatives and projects. We will continue to develop routes into new and emerging markets as we move forward into 2023 and beyond.

We will continue to invest in new products and technologies that drive forward our ambition to reduce our wider environmental impact and achieve the company-wide goal of being carbon neutral by 2050.

Alongside this growth, we will be investing in improving the infrastructure to strengthen connectivity between our mines and processing plants. This will drive further efficiencies and increase shareholder and customer value.

06



**DELIVERY:
FOCUS ON
ALUMINUM**



Background

Ma'aden Aluminium is distinct as the only fully integrated Aluminium producer within the Gulf region. This positions the business as one of the world's leading Aluminium producers.

The partnership responsible for overseeing the comprehensive Mine to Casting operation consists of Ma'aden and Alcoa.

Ma'aden Aluminium is essentially three interconnected companies that combine Mining, Refining, Smelting, Casting, and Rolling - culminating in an end-to-end value chain spanning from bauxite extraction to final product distribution in the market. Our state-of-the-art, fully integrated Aluminium complex delivers high-quality Aluminium solutions to both domestic and international markets.

Ma'aden Aluminium plays an integral role within the broader Ma'aden portfolio of businesses, generating value for the company, Saudi Arabia, customers, stakeholders, and investors. As a substantial contributor to Saudi Arabia's GDP and job creation, Ma'aden also drives value through local supply chains, supporting businesses in the Kingdom.

Within the Middle East, our integrated Aluminium value chain holds the distinction of being the largest, and on a global scale, it ranks among the most expansive, with assets exceeding SAR 42 billion. To maintain our competitiveness amidst escalating raw material costs, we maintain a strategic emphasis on operational, capital, and commercial excellence, fortifying our Aluminium business.

Assets exceeding

SAR 42 billion

Operational activities include

- Aluminium Smelting/Casting: We have a focused effort on value-add castings (slabs and billets) and successfully operate our smelter at the highest amperage in the Aluminium Pechiney (AP club) of similar technologies.
- Aluminium Rolling Mill: Ma'aden operates a state-of-the-art facility focusing on Can Body, End and Tabs & Auto Sheet. In addition, we recycled > 20% of post-consumer scrap using our Can Reclamation Unit (CRU).
- Bauxite Mining: We are the only operator within the Gulf with local in-kingdom resources and reserves of Bauxite.
- Alumina Refining: Using the Bauxite mined locally, we refine our alumina, in a state-of-the-art high-temperature refinery.

Market Overview

2022 witnessed a significant deceleration in the global economy, characterized by a widespread and pronounced slowdown in many of the world's leading economies.

Additionally, the occurrence of levels of high inflation that has not been seen for several decades intensified the challenges faced by manufacturing businesses.

The wider performance of the economy was negatively impacted by a range of factors including the cost-of-living crisis, tightening financial conditions across most regions, the Russia-Ukraine war, and the ongoing effects of the COVID-19 pandemic on markets and supply chains. According to the International Monetary Fund (IMF), global growth decelerated from 6.0% in 2021 to 3.2% in 2022.

This economic backdrop also impacted on the global market for Aluminium. The Aluminium market experienced volatility throughout 2022. The dynamics of the global Aluminium market were shaped by factors such as the Russia-Ukraine war, COVID-19 disruptions in China, concerns about recession, and ongoing supply chain issues. These factors played a dominant role in shaping the direction of LME prices.

In terms of demand, Chinese consumption witnessed a marginal 1% year-on-year increase in 2022 amidst ongoing aftershocks from the COVID-19 pandemic and associated local lockdowns and slow growth in the property sector. Consumption in the rest of the world was

affected by high inflation and monetary tightening measures.

On the supply side, China's production grew at a slower pace of 4.4% year-on-year due to regional power shortages. In contrast, production in the rest of the world stagnated, as high energy costs led to the closure of 1.6 million tons of capacity in Europe and the US. Consequently, the global metal deficit narrowed to 0.2 million tons in 2022, compared to 1.6 million tons in 2021. The LME Aluminium cash price rose by 9.4% year-on-year, averaging \$2,707 per metric ton in 2022.

Looking ahead to 2023, the global economy is anticipated to face further deceleration, despite some signs of easing inflation and forecast growth in Chinese markets. This uncertain and mixed macroeconomic outlook will undoubtedly shape the short-term dynamics of the Aluminium market. However, in the long term, prospects for the Aluminium part of our business are positive, supported by strong underlying fundamentals, including sustained demand growth, supply constraints in China, and rising smelting costs.





Business Update

Ma'aden's market position has strengthened during 2022 as a result of several factors.

Firstly, the exceptional quality and wide range of our products give us a distinct offering in the marketplace. At Ma'aden, we take great pride in offering products that consistently meet and exceed industry standards. Additionally, our staff plays a pivotal role in our success.

We have assembled a team of highly skilled professionals that combine a wealth of global experience with invaluable local knowledge. Their expertise ensures that we deliver unparalleled service and support to our customers.

Furthermore, our diverse product range enhances our resilience and bolsters our future aspirations. We are committed to constant innovation, as evidenced by our successful introduction of new product lines throughout 2022. Chief amongst these has been the addition of 6" Billets. This new product innovation has enabled us to

enter new markets on a global scale while simultaneously strengthening our position and expanding our strategic market share within our existing customer base.

Within the Flat Rolling Products (FRP) segment, we experienced an average sales increase of approximately 4% in 2022. This growth can be attributed to the enduring demand for FRP, which remained robust throughout the year. Our ability to meet this demand with high-quality products has solidified our position and established us as a trusted supplier in the industry.

Moving forward, we are determined to build upon these achievements to deliver value for customers, stakeholders, and investors. Ma'aden is entirely committed to delivering exceptional products, supported by our talented workforce and a relentless focus on understanding and meeting customer needs.

Key Achievements

Our continuing production of Slabs, Billets, Ingots, and the introduction of the new diameter 6" Billets to the local market have placed us on the path for further growth as market demand increases. Notable achievements this year have included:

- Ma'aden's Board approved Ma'aden's overall ESG Strategy to achieve Carbon Neutrality by 2050.
- In June 2021, Ma'aden Aluminium (MA) obtained ASI Performance Standard (PS) and Chain of Custody (CoC) certificates which demonstrate in a credible way that the business upholds the highest environmental, social, and ethical standards. CoC links Ma'aden Aluminium practices to its products. This link starts with bauxite or recycled Aluminium and continues right through each step of the supply chain to end users. It creates a clear link between responsible sourcing and responsible production.
- Ma'aden is aligned with ASI's sustainability priorities which have high-level challenges for our global future. These include targets around climate change, the circular economy, supporting the natural environment, and protecting human rights.
- In June 2021, Ma'aden signed a Memorandum of Understanding (MoU) with Glasspoint to develop the world's first and largest solar steam plant, to decarbonize its Alumina Refinery. The business aspires to save 600,000 tons of CO2 emissions per year.
- Ma'aden continuous efforts on overall ESG (Environment, Social, and Governance) led to the signing of a Memorandum of Understanding (MoU) with various local cement companies for its Bauxite Red Mud Volarization initiatives during the future mineral forum.

- Ma'aden assessed various technologies and signed a Memorandum of Understanding (MoU) with iB2 to improve its overall Caustic Consumption and usage of Bauxite from the mine.
- Ma'aden built the relationship further with Mitsui & Co. with a Memorandum of Understanding (MoU) to decarbonize its Al-Baitha mine.
- 180+ professional employees have been trained on Lean Six Sigma, Lean tools, and ISO Standards across the business units.
- MRC was awarded to supply commercial volume to Jaguar Land Rover (JLR) for its new 2022 Range Rover Sport model. Ma'aden was awarded the highest share of Aluminium inner parts in the vehicle.
- Ma'aden Rolling Company (MRC) started production to supply flat-rolled products to Nissan for use in its USA Rogue 2022 model.
- Ma'aden Aluminium continues to push to increase diversity in the mining segment and has hired 12 additional female staff so far, aligning with corporate targets.

The business aspires to save
600,000
tons of CO2 emissions per year.

180+
professional employees have been trained on Lean Six Sigma.



Moving Forward

Ma'aden Aluminium's strategic focus continues to be on sustainably delivering high-quality products.

The business will continue to leverage innovation and new technologies to develop new facilities that can help us achieve our wider sustainability goals, increase our output, and maintain our competitive production costs.

We also continue to be a responsible miner with a focus on ESG (Environment, Social, and Governance) and diversity as we seek to target and penetrate new markets.



**DELIVERY:
FOCUS ON
BASE METALS
AND NEW
MINERALS**



07

Background

Gold is an integral part of the Ma'aden success story. In the 13 years since our IPO, Ma'aden has grown from a small gold mining company to a largescale international Base Metals and New Minerals company, that operates six gold mines in its own right plus a copper mine in a joint venture with Barrick in Saudi Arabia.

In only a decade, we have progressed from a new market entrant into an internationally renowned gold miner. Ma'aden's Base Metals and New Minerals business has grown rapidly and currently accounts for 5.6% of Ma'aden's total revenue, contributing significantly to Saudi Arabia's GDP and driving shareholder value.

In 2022, we continued to pursue our growth and expansion targets. Our focus was on two new mines, Mansourah and Massarah, which are currently under commissioning, and the Ar Rjum mine, which is undergoing further feasibility studies. These developments are crucial to our future growth and expansion. At Ma'aden, we know that this needs to be delivered in a sustainable way, which minimizes the impact of extraction on the environment and local host communities.

Moving forward into 2023, we have challenging targets to reduce water and energy use, and emissions, while investing in local communities and supply chains to extract and drive shareholder value.



Mine performance 2022

In 2022, we reached a major milestone in September, with Mansourah and Massarah producing its first gold.

The additional production from Mansourah and Massarah resulted in a total yield of 335,207 oz. of gold from our gold operations.

Mines	2022
Mahd Mine	29,566.34
Sukhaybarat & Bulghah	74,372.25
Al Amar Mine	27,443.42
As suq Mine	17,042.39
Ad Duwayhi Mine	174,799.86
Mansourah/ Massarah	11,982.84
Total (oz)	335,207.10

This resulted in the production of a total of

335,207 oz
of gold from our operations.

Mansourah and Massarah reached a major milestone for the first gold in September and produced

11,982 oz
in 2022.



Projects in development

Saudi Arabia holds an estimated \$1.3 trillion worth of untapped mineral deposits. At Ma'aden, we are making use of these resources to boost the Kingdom's economy and improve the quality of life for all citizens. We continue to identify and exploit new sources of mineral wealth to the benefit of future generations in the Kingdom.

Currently, we have two new gold-mining projects under study, namely the new Ar Rjum gold project and Al Mahad open pit expansion. In addition, we have one gold mine project being commissioned and ramping up to full production, - the Mansourah and Massarah gold project.

First gold was achieved in September 2022 at the Mansourah and Massarah Mine and work is continuing to complete the construction and commissioning of the sulfide circuit while the ramp-up of the oxide circuit is being completed. Mansourah and Massarah is the largest gold project ever to be undertaken by Ma'aden. The level and scale of our project pipeline demonstrate the commitment of Ma'aden to identify and pursue growth and investment in Saudi Arabia.

We are also in the process of completing the Bankable Feasibility Study for the Ar Rjum Gold Mine Project. The development of the Ar Rjum Resource is an important element in Ma'aden's strategy to increase gold production to 1 million sustainable ounces per year, benefiting both Saudi Arabia and the local communities at a national and regional level.

At the heart of the Ar Rjum project, is our commitment to sustainable and responsible development of mining projects following the guidelines of the Ma'aden Stage Gate Process, international standards, and in compliance with the Kingdom's Industrial, Mining, and Environmental legislation. The planned Ar Rjum mine will have the largest Carbon-in-Leach processing plant in Saudi Arabia and the mining operations will use treated water. The treated water is recycled at two sewage treatment works in Taif and piped to several mining operations in the arid central region of Saudi Arabia over a total distance of 450km.

The Mahad Expansion Project is undergoing a Pre-Feasibility study and will develop an open pit at Ma'aden's existing underground operation. The region has a long gold mining history with an ancient gold mine dating back 3,000 years and modern underground production commenced in 1988. The development will ensure that the region and local community and economy continue to benefit from the planned mining operations for the next decade.

All three of these projects have the potential to bring enormous benefits to local communities. We are working with our partners to ensure that local employees and supply chains benefit from current and future mining developments.

Saudi Arabia holds an estimated

USD 1.3 Trillion

worth of untapped mineral deposits

maaden.com.sa





Focus on Copper

In addition to gold, Ma'aden continues to successfully extract, process, and export copper through its successful joint venture with Barrick. In 2022, a total of 2.732 million tons were processed at a grade of 2.67% and with a recovery rate of 93.8% resulting in 150.7 million pounds of copper. Moreover, the mine exceeded targets for both ore extraction and the production of copper concentrates. Work is underway to develop a new target less than one kilometer from the existing lode at Jabal Sayid, while exploration results continue to confirm the discovery potential across the mine.

Ma'aden also continues to successfully extract, process, and export copper. In 2022, a total of

2.732 million tons
were processed at a grade of
2.67%

We also continue to benefit from the geographic location of our business and the world-class infrastructure of Saudi Arabia. In 2022, 25 shipments of bulk copper concentrates were loaded from Yanbu commercial port, either to China or Japan.

Other key operational highlights in 2022 included:

- 25 shipments of bulk copper concentrates were loaded from Yanbu commercial port, either to China or Japan.
- Redefined power supply strategy targeting grid connection by 2025.
- Exploration efforts showing return on investment with growth of reserves in 2022 Lode 1 Deeps extensions of 169.9Mlbs.
- Paid back all outstanding shareholder loans in three years and started declaring dividends to the partners in 2021 totaling ~\$540 million up to Q4 2022 on the back of increased performance and cost discipline.

Facing the future

We are acutely aware of the challenges and opportunities that lie ahead. We are in an era of unprecedented change, where technological advancements, shifting market dynamics, and evolving societal expectations are transforming the landscape of our industry.

In the face of these changes, we must remain committed to our core values of safety, sustainability, and responsible mining practices. We must embrace innovation and continue to invest in new technologies that will enhance our operational efficiency, reduce our environmental impact, and improve the safety of our employees.

At the same time, we remain mindful of the broader impacts of our operations on the communities in which we operate. We must engage in meaningful dialogue with local stakeholders, listen to their concerns, and work collaboratively to address them.

As we look to the future, we must be agile, adaptable, and focused on long-term value creation. We must be willing to take calculated risks and make strategic investments that will position us for success in a rapidly changing world.

Ultimately, our success will depend on our ability to stay true to our values, while also embracing change and innovation. Together, we can build a sustainable and prosperous future for our company, our employees, and the communities we serve.

CONCLUSION

08





Conclusion

2022 was a year of change for Ma'aden, with a new CEO and improvements to the way that we do business.

Key to those changes was a renewed focus on developing our business in a way that balances economic growth with our social and environmental aims.

What our record financial performance demonstrates is that it is possible to achieve growth in a way that has sustainability at its heart.

Indeed, more than that, it shows that sustainable business practices are the very thing that can drive growth and ensure that we maintain a competitive advantage in the sector.

Ma'aden's business fundamentals are strong and we are well-positioned to continue to grow and make a significant contribution to the future of Saudi Arabia in line with Vision 2030. We are proud to be part of that wider transformation and to ensure that the mining industry delivers real value for the Kingdom and its people.



As we look forward to 2023, we are certain that our journey will not stop. As a business, Ma'aden is driven by a relentless desire to drive changes in how we work, to become more efficient, and to focus on identifying and extracting the new mineral resources that the low carbon economy will demand, whilst also continuing to grow our core business.

Stakeholders, staff, and customers should all be assured that Ma'aden will do everything within its power to ensure the business continues to make a sustainable difference.

CONSOLIDATED FINANCIAL STATEMENT



09

Financial Statements

Commercial registration number	1010164391	
Directors*	H.E. Yasir O. Al Rumayyan	Chairman
	Dr. Abdulaziz bin Saleh Al-Jarbou	Vice chairman
	H.E. Sulaiman Bin Abdulrahman Al-Gwaiz	
	H.E. Eng. Khalid Bin Saleh Al-Mudaifer	
	Dr. Mohammed Bin Yahya Al-Qahtani	
	Mr. Richard O'Brien	
	Dr. Ganesh Kishore	
	Mr. Abdullah Bin Saleh Bin Jum'ah	
	Eng. Nabilah Bint Mohammed Al-Tunisi	
	Mr. Robert Wilt*	
Registered address	Ms. Sofia Bianchi**	
	Dr. Samuel Walsh***	
	Building number 395	
	Abi Bakr Asseddiq Road, South	
	Exit 6, North Ring Road	
	Riyadh 11537	
	Kingdom of Saudi Arabia	
	P.O. Box 68861	
	Riyadh 11537	
	Kingdom of Saudi Arabia	
Postal address	PricewaterhouseCoopers	
	Kingdom Tower - 21st Floor	
	King Fahad Road	
	Riyadh 11414	
	Kingdom of Saudi Arabia	
Auditors		

* As of 1 February 2022, the Board of Directors appointed Mr. Robert Wilt as CEO and as Executive Board Member. Mr. Robert Wilt's appointment as Executive Board Member was approved by General Assembly on 30 May 2022.

** As of 19 December 2022, the Board of Directors appointed Ms. Sofia Bianchi as Non-Executive Board Member. Ms. Sofia Bianchi's appointment as Non-Executive Board Member will be presented in the next General Assembly for endorsement.

*** Dr. Samuel Walsh, Non-Executive member, resigned effective from 24 February 2022.

SAUDI ARABIAN MINING COMPANY (MA'ADEN)
(A Saudi Arabian joint stock company)

Statement of Directors' responsibilities for the preparation and approval of
the consolidated financial statements for the year ended 31 December 2022

Management is responsible for the preparation of the consolidated financial statements that present fairly the consolidated financial position of the Group as at 31 December 2022, its financial performance, changes in equity and cash flows for the year then ended, in accordance with International Financial Reporting Standards ("IFRS") issued by the Saudi Organization for Chartered and Professional Accountants ("SOCPA"), as endorsed in the Kingdom of Saudi Arabia.

In preparing the consolidated financial statements, management is responsible for:

- selecting suitable accounting policies and applying them consistently,
- making judgments and estimates that are reasonable and prudent,
- stating whether IFRS and other standards and pronouncements that are issued by the SOCPA, as endorsed in the Kingdom of Saudi Arabia, have been followed, subject to any material departures disclosed and explained in the consolidated financial statements, and
- preparing and presenting the consolidated financial statements on a going concern basis, unless it is inappropriate to presume that the Group and the companies will continue their business for the foreseeable future.

Management is also responsible for:

- designing, implementing and maintaining an effective system of internal controls throughout the Group,
- maintaining statutory accounting records in compliance with local legislation and IFRS in the respective jurisdictions in which the Group operates,
- taking steps to safeguard the assets of the Group, and
- detecting and preventing fraud and other irregularities.

The consolidated financial statements for the year ended 31 December 2022 set out on pages 10 to 139, were approved and authorized for issue by the Board of Directors on 12 February 2023 and signed on their behalf by:



21 Rajab 1444H
12 February 2023
Riyadh
Kingdom of Saudi Arabia



Report on the audit of the consolidated financial statements

Our opinion

In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of Saudi Arabian Mining Company (Ma’aden) (the “Company”) and its subsidiaries (together the “Group”) as at 31 December 2022, and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards (“IFRS”), that are endorsed in the Kingdom of Saudi Arabia, and other standards and pronouncements issued by the Saudi Organization for Chartered and Professional Accountants (SOCPA).

What we have audited

The Group’s consolidated financial statements comprise:

- the consolidated statement of profit or loss for the year ended 31 December 2022;
- the consolidated statement of comprehensive income for the year then ended;
- the consolidated statement of financial position as at 31 December 2022;
- the consolidated statement of changes in equity for the year then ended;
- the consolidated statement of cash flows for the year then ended; and
- the notes to the consolidated financial statements, which include significant accounting policies and other explanatory information.

General information

Saudi Arabian Mining Company (“Ma’aden”) (the “Company”) was formed as a Saudi Arabian joint stock company, following the Council of Ministers Resolution No. 179 dated 8 Zul Qaida 1417H (corresponding to 17 March 1997) and incorporated in the Kingdom of Saudi Arabia pursuant to the Royal Decree No. M/17 dated 14 Zul Qaida 1417H (corresponding to 23 March 1997) with Commercial Registration No. 1010164391, dated 10 Zul Qaida 1421H (corresponding to 4 February 2001). The Company has an authorized and issued share capital of Saudi Riyals (“SAR”) 24,611,822,920 divided into 2,461,182,292 with a nominal value of SAR 10 per share (Note 30).

SAUDI ARABIAN MINING COMPANY (MA’ADEN)
(A Saudi Arabian joint stock company)

Statement of Directors’ responsibilities for the preparation and approval of the consolidated financial statements for the year ended 31 December 2022

Categories of assets	Number of years
Mine properties	Using UOP method over the economically recoverable proven and probable reserves or straight line method over the economic useful life, whichever is shorter
Land and buildings	4 – 50
Plant and equipment including fixed plant, heavy equipment, mobile workshop equipment, laboratory and safety equipment and computer	4 – 10
Office equipment	4 – 10
Furniture and fittings	4 – 10
Motor vehicles	4

Right-of-use assets and lease liabilities

The Group assesses whether a contract is or contains a lease, at inception of a contract. The Group recognises a right-of-use asset and a corresponding lease liability with respect to all lease agreements in which it is the lessee, except for short-term leases (defined as leases with a lease term of 12 months or less) and leases of low-value assets. For these leases, the Group recognises the lease payments as an operating expense on a straight-line basis over the term of the lease unless another systematic basis is more representative of the time pattern in which economic benefits from the leased asset are consumed.

Summary of significant accounting policies

Financial instruments, financial assets and financial liabilities

- Interest rate swap contracts
- Forward exchange contracts
- Commodity contracts
- Provisional price contracts

Financial assets

The Group’s principal financial assets include:

- joint ventures (equity accounted for) – (Accounting policy 4.1),
- other investment in securities, where the Group’s intention is to hold it to maturity,
- derivative financial instruments,
- trade and other receivables – excluding pre-payments and zakat / tax receivables – (Accounting policy 4.15),
- time deposits (Accounting policy 4.16) and
- cash and cash equivalents (Accounting policy 4.17)

They are derived directly from the Group’s operations.

Critical accounting judgments, estimates and assumptions

The preparation of consolidated financial statements in conformity with IFRS and other standards and pronouncements that are issued by SOCPA, as endorsed in the Kingdom of Saudi Arabia, requires the Group's management to make judgments, estimates and assumptions that affect the reported amounts of revenues, expenses, assets and liabilities, and the accompanying accounting disclosures, and the disclosures of contingent liabilities at the reporting date of the consolidated financial statements.

Estimates and assumptions are continually evaluated and are based on management's historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. The Group makes estimates and assumptions concerning the future. The accounting estimates will, by definition, seldom equal the related actual results.

Segmental information - Business segment

The Group's operations consist of the following business segments:

- Phosphate Strategic Business Unit Segment,
- Aluminium Strategic Business Unit Segment
- Base Metals and New Minerals Strategic Business Unit Segment.

Financial risk management

The Group's activities expose it to a variety of financial risks such as:

- market risk
- credit risk and
- liquidity risk

Market risk

Market risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risk comprises of three types of risk:

- foreign currency exchange risk,
- commission (interest) rate risk and
- commodity price risk

Capital management - Risk management

The Group's objectives when managing capital are to

- safeguard their ability to continue as a going concern, so that they can continue to provide returns for shareholders and benefits for other stakeholders, and
- maintain an optimal capital structure to reduce the cost of capital.

In order to maintain or adjust the capital structure, the Group may adjust the amount of dividends paid to shareholders, return capital to shareholders, issue new shares or sell assets to reduce deb

Full Finacial Statment

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