

**RESILIENCE  
EFFICIENCY  
SOCIETAL VALUE**

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### About this review

This review is a short-form Sustainable Development (SD) update compared to the more comprehensive, GRI-informed reports published in previous years. It reflects a strategic shift in focus as we prepare for the implementation of the European Union's Corporate Sustainability Reporting Directive (CSRD), including efforts to strengthen our data management and reporting systems to meet expected future compliance requirements.

Nonetheless, this review continues to be guided by ERG's materiality assessment. For further details on the underlying methodology and process, please refer to our 2023 SD report.

The review presents ERG's business and sustainability performance for the 2024 calendar year, covering mining, processing, power generation, project development and transportation activities. It provides a high-level overview of key issues, trends and outcomes across our operational, financial, environmental, social and governance performance.

ERG supports the achievement of the UN Sustainable Development Goals (SDGs) through its initiatives. Related UN SDGs are outlined at the start of each topical chapter in this review.

While the information provided in our 2023 SD report – particularly regarding our management approach – remains relevant, additional and supporting details are available at:

- Group: [eurasianresources.lu](https://eurasianresources.lu)
- Kazakhstan: [erg.kz](https://erg.kz)
- Africa: [ergafrica.com](https://ergafrica.com)
- Brazil (BAMIN): [bamin.com.br](https://bamin.com.br)

The content of this review has not been subject to third-party assurance, but has been subject to internal validation.

Please note that this report is produced in English, Kazakh, Russian, French and Chinese. In the event of any inconsistencies, the English language version shall take precedence.

### Notes on the preparation of this review

All references to 'ERG' or the 'Group' refer to Eurasian Resources Group S.à r.l. and / or its subsidiaries.

This document includes forward-looking statements. For more information, please refer to the inside back cover.

We welcome feedback on this review. Please forward any comments or requests for additional information to [sdr@erg.net](mailto:sdr@erg.net).

### How to use this review

This review uses interactive features to link to different elements of its content.

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## WHO WE ARE

Eurasian Resources Group (ERG) is a global metals and mining company with a workforce of around 67,000<sup>1</sup> and integrated exploration, mining, processing, energy, logistics and marketing operations. ERG's main regions of operational presence are Kazakhstan, Africa and Brazil. We are a major supplier of critical minerals that are enabling the global energy transition.

ERG is one of the world's leading producers of high-carbon ferrochrome by chrome content, underpinned by fully integrated chrome ore assets. We are also a major African copper producer and one of the world's largest producers of cobalt. In addition, we are the only producer of primary aluminium in Kazakhstan, the sole supplier of alumina in Central Asia, and the largest supplier of iron ore in the region.

## YEAR AT A GLANCE

### FINANCIAL

**US\$1,867M**

Underlying EBITDA  
(2023: US\$1,530M)

**US\$6,347M**

Revenue  
(2023: US\$6,509M)

**US\$1,163M**

Capex  
(2023: US\$1,440M)

### OPERATIONAL

**1,863.1kT**

Ferroalloys production  
(2023: 1,634kt)

**264.5kT**

Aluminium production  
(2023: 260.9kt)

**139.2kT**

Saleable copper metal  
and concentrate production  
(2023: 163.3kt)

### SUSTAINABILITY

**1.12**

Lost time injury  
frequency rate  
(2023: 0.71)

**29.7MT CO<sub>2</sub>e**

GHG emissions  
(2023: 29.4Mt CO<sub>2</sub>e)

**US\$6,506M**

Economic value distributed  
(2023: \$7,283M)

## OUR VISION

An international, sustainable, socially responsible and efficient natural resources company.

## OUR MISSION

Be the best at what we do. Navigate global change, while holding true to our values. Responsibly unlock the potential of the Earth and its people, ensuring the prosperity of those who rely on us.

## OUR VALUES



Safety



Unity



Efficiency



Development



Responsibility

# A diversified natural resources group, positioned for the energy transition

## OUR KEY PRODUCTS

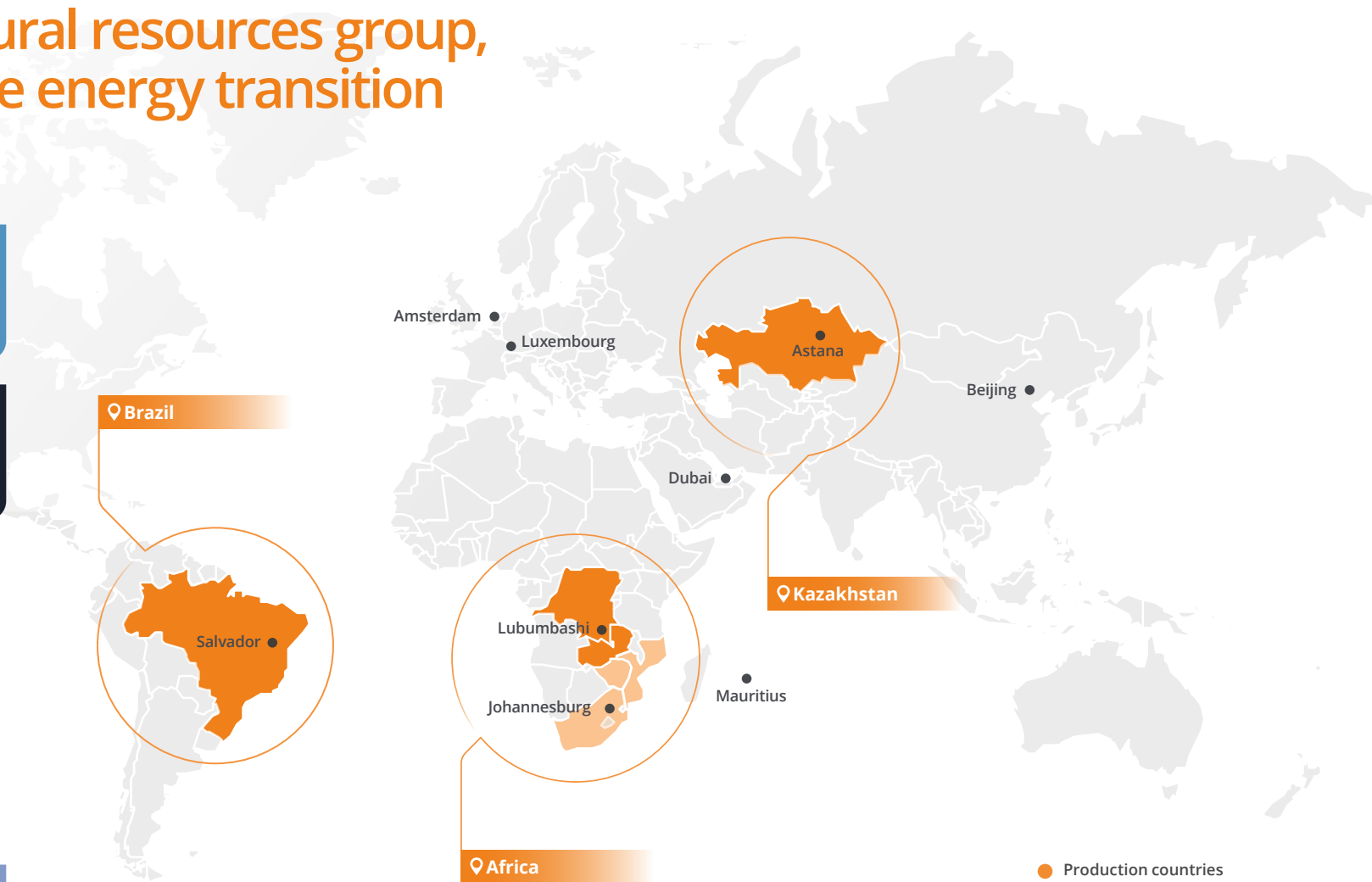
Ferroalloys

Iron ore

Alumina  
and aluminium

Cobalt, copper  
and other  
non-ferrous

Energy



- **Production countries**  
Kazakhstan, DRC, Zambia,<sup>1</sup> Brazil<sup>2</sup>
- **Development countries**  
Mozambique, South Africa, Zimbabwe
- **Corporate offices**

1 Our Chambishi Metals operation in Zambia is currently on care and maintenance.  
2 Our BAMIN integrated project in Brazil was placed on care and maintenance in early 2025.

# Pursuing sustainable long-term growth

I am glad to present this Sustainable Development Review as ERG's Chairman and CEO, following my appointment to these roles in the second half of 2024 after more than ten years with the Group. I would like to thank Benedikt Sobotka for his decade of dedicated service as the CEO of ERG and for his role in ensuring the growth and success of the Group.

Our company has a strong identity and an incredible team of highly professional, talented employees, and I am inspired by what the future holds for us.

## In memory of Dr Alexander Machkevitch

It was with great sadness that in March 2025 we mourned the passing of Alexander Machkevitch, who co-founded ERG. Dr Machkevitch's role in establishing, developing and leading ERG, including through his tenure as Chairman from 2014 to 2024, cannot be overstated. His impact on the broader metals and mining industry has also been profound. Under the leadership of Dr Machkevitch, numerous social and educational initiatives were successfully delivered.



**The future of our business will depend on our efficiency, resilience and ability to pursue sustainable long-term growth. Our new Strategy sets out an ambitious roadmap to achieve these aims.**

Building on the solid foundation that he and the other ERG founders established, we will drive the company's continued growth and reach new milestones in the years ahead.

## A new chapter in ERG's development

Mining and metals drove the industrial revolution. As the world enters a new era, based on a greener economy, critical minerals, digitalisation and AI, our role as a responsible and reliable metal producer is becoming even more important. As a company, we will seek to capitalise on our key strengths and prioritise steady growth, with a focus on long-term value generation.

I am delighted that at the end of 2024, we adopted a new three-year Strategy (p. 9). It will help enhance our efficiency and financial position, and will also provide a platform for measured future growth. This includes the development and expansion of our core assets in Kazakhstan and the unlocking of the full potential of our assets in Africa. We will place a strong focus on developing our people and strengthening our production management capabilities. Our goal is to retain and grow a world-class team of engineering and technical experts who will drive our operations to new levels of excellence.

This Strategy is focused on building on our existing strengths, while seeking sustainable growth and delivering value for all of our stakeholders. In the long term, we plan to sustain our industry leadership by advancing high-value added products and establishing new industrial enterprises.

## CHAIRMAN AND CEO STATEMENT

### Workplace safety

Tragically, 12 of our colleagues lost their lives in workplace incidents during 2024 – a profound loss for their families, teammates and the broader company. In February 2025, a significant negative factor for the Group was the spontaneous ignition of hydrogen at the new Bolashak mine in Kazakhstan (p.11), where the incident led to a fatal injury of one employee. With deep sorrow, and on behalf of the whole Group, I extend our sincere condolences to the families and loved ones of those who passed away. This is a stark reminder that we need to do even more to achieve a truly safe workplace. This is work we are committed to undertaking.

We have declared 2025 as our ‘Year of Safety’, a Group-wide initiative to drive meaningful and lasting change. This includes a programme of measures to address our safety culture, policies, procedures, communications, equipment and technology. In February 2025, our safety leaders participated in a large-scale Safety Forum in Kazakhstan, resulting in the formulation of a new Safety Roadmap. We are also deploying ‘ERG Vision’, an automated video surveillance system that will significantly enhance safety oversight and real-time monitoring across our operations in Kazakhstan.<sup>1</sup> These initiatives supplement a range of other measures we are implementing to enhance our safety performance (p. 18).

### Business performance

In 2024 and into 2025, we continued to experience a challenging external environment. This was characterised by geopolitical tensions, higher-than-expected inflation and interest rate uncertainty in key economies, as well as subdued consumer sentiment in China (despite stimulus measures and significant growth). It also included international economic uncertainty after elections in the US (particularly with respect to US tariff

policy) and the imposition of new international sanctions against Russia. Collectively, this has reinforced the need for ERG to remain both flexible and resilient in the face of a complex operating landscape.

### Operational

#### Kazakhstan

Kazakhstan is the cornerstone of our operations, and I am pleased to report that in 2024 we increased production across nearly all of our major products in the country.

This was most marked with respect to our ferroalloys output, which increased by an impressive 14% to 1,863kt (2023: 1,634kt), driven by a more than 16% increase in chrome ore output at Donskoy GOK. Iron ore pellet and concentrate production increased by 3.6% in 2024, reaching 10,098kt (2023: 9,744kt). Alumina output increased by 8.5% to 1,530kt (2023: 1,410kt), supported by the stabilisation of (and improvements to) our production process, while aluminium production increased by 1.4% to 265kt (2023: 261kt) as KAS achieved its maximum production capacity.

#### Africa

Circumstances in Africa were more challenging, with copper metal production decreasing by 1.4% to 101kt (2023: 103kt) and cobalt hydroxide production decreasing by 5% to 19kt (2023: 20kt).

Copper production at Metalkol was impacted by network instability and power outages, as well as lower recovery rates, while cobalt production decreased due to lower feed grade. We are continuing to enhance the operation's production processes to achieve planned output levels and are improving its energy supply and infrastructure. At Frontier, our production of saleable copper concentrate was impacted significantly by the delayed ramp-up of our Cut 4 project, decreasing by 37.4% to 38kt (2023: 61kt).

#### Brazil

In Brazil, ERG has been developing, as sole investor, one of the largest mineral infrastructure projects in the country – BAMIN. Given the challenging global geopolitical and macroeconomic environment, alongside lower commodity prices, we are now taking a more prudent approach towards the development of this project. Accordingly, we are continuing to explore the potential involvement of additional investors in BAMIN.

### Financial

#### Revenue and EBITDA

In 2024, our underlying EBITDA increased by 22% to US\$1,867 million (2023: US\$1,530 million), despite a 2.5% decrease in revenue from US\$6,509 million in 2023 to US\$6,347 million. This moderate fall in revenue was mainly driven by a significant decline in ferroalloys prices, partially offset by higher prices for our other products. At the same time, a strong focus on efficiency helped drive cost reductions across our products, particularly for ferroalloys and copper.

#### Costs

In Kazakhstan, we reduced our unit costs, despite inflationary pressures, indexed wages and our investment in the maintenance and development of our core production assets. This also reflected our transition from contractor to owner-mining at our ferroalloys division, as well as the restart of anode production at KAS following capital repairs.

In Africa, Metalkol enjoyed lower costs for its reagents, consumables and power. However, Frontier experienced higher unit costs for its copper, due to lower production volumes and lower ore grade.

#### Capex

Our Group capital expenditure was US\$1,163 million (2023: US\$1,440 million). Capital expenditure was primarily associated with improving and extending the life of our existing assets, laying the basis for sustainable future growth and investing in improvements to our environmental, health and safety performance.

#### Debt

In 2024, we drew US\$524 million from our credit facilities, but repaid borrowings of US\$647 million (2023: US\$201 million), resulting in a net repayment on borrowings of US\$123 million (2023: net proceeds from borrowings US\$65 million).

We are working to further enhance our financial resilience by diversifying our financing arrangements, including through the establishment of alternative sources. In 2024, for example, we received the prestigious TXF Metals and Mining Deal of the Year 2024 award for a US\$150 million copper pre-export finance facility<sup>2</sup> linked to a supply agreement for copper produced at Metalkol. In 2025, the facility amount was further increased to US\$215 million. In 2024, we also secured a US\$150 million aluminium pre-payment facility.<sup>3</sup>

Following these achievements, in 2025, we issued a public debt instrument for the first time – guaranteed three-year coupon bonds for up to US \$100 million via Kazakhstan Aluminium Smelter JSC. Supported by the Development Bank of Kazakhstan as a guarantor, the issuance was awarded an investment-grade credit rating of ‘Baa1’ by Moody's. This marks the first time in Kazakhstan that privately issued bonds regulated under local legislation have received an international investment-grade rating.

<sup>1</sup> ERG Vision is being applied in full compliance with applicable data protection regulations.

<sup>2</sup> Signed with Bank of China Limited (London branch) and Glencore International AG.

<sup>3</sup> Signed with Trafigura Pte Ltd.

## CHAIRMAN AND CEO STATEMENT

### Business sustainability

#### Making the most of our assets – and pursuing sustainable growth

In 2024, we launched our Bolashak mine at Donskoy GOK in Kazakhstan (p. 11), with total investment in the mine to exceed US\$2 billion. Along with the vertically integrated nature of our business, the mine is anticipated to secure the long-term future of Kazchrome by providing our Aktobe and Aksu ferroalloys plants with high-quality ore.

Meanwhile, the successful commissioning of our Soft Coke Plant will lower our operating costs by reducing the need for imported reductants. A decision was also taken to construct our Hot Briquetted Iron Production Plant at Rudny, which will create new jobs while enhancing our ability to market and sell higher-quality iron products. Other key projects included the expansion of our ERG Green initiative, the initial commissioning of our Khromtau wind power project (p. 15) and the modernisation of our aluminium and iron processing facilities

in Pavlodar and Rudny. In addition, this will contribute to lowering greenhouse gas emissions across the steel production value chain.

We are also preparing to commence gallium production at Aluminium of Kazakhstan in the second half of 2026, with a view to expanding production volumes to as much as 15 tonnes per annum. ERG plans to become a significant player in the global gallium market, contributing to the supply of this critical mineral to meet demand in the OECD countries.

In parallel, ERG Exploration continues to pursue the expansion of our resource base in Kazakhstan, with a focus on bauxite, chromite, copper, polymetals and other mineral opportunities.

In Africa, we are focused on optimising and developing our core production operations. This includes enhancements to Metalkol's processing plant to help it reach its planned output, as well as the completion of work on Frontier's Cut 4 pit extension. Cut 4, which started to produce ore in June 2024, will further extend the life of the Frontier mine.

### Our ongoing pursuit of efficiency

We are making our operations as efficient as possible, including through our ongoing Operational Efficiency programme in Kazakhstan. In addition, our ERG Way Plus Production System is being implemented at all of our major sites to promote a more effective working culture (including through the lean principles) and help us identify efficiencies across the production lifecycle. This includes a focus on equipment productivity, sustainable cost cutting, effective team interaction and systematic change management.

In Africa, we have launched a cost optimisation programme at Metalkol to maintain the competitiveness of the operation and the long-term sustainability of our business.

### Leveraging technology

Technology is playing an increasingly important role in getting our business ready for the digital future. In Kazakhstan, this is most apparent with our Smart Mine initiative, which is transforming how we operate our pits. In 2024, autonomous trucks piloted at our Vostochny pit shifted their first million tonnes of ore. This is already giving an indication of what the future of our mines will look like and the levels of productivity that can be achieved.

Similarly, we are committed to the broader digitalisation of our operations. This includes the ongoing rollout of our Manufacturing Execution System in Kazakhstan, which is helping to optimise our production processes. In addition, our Automated Process Control Systems (APCS) Data Warehouse stores and processes APCS data from all of our operations in the country, delivering high levels of control, transparency and analytical insight.

### Sustainability performance

#### Building a global team for the future

The future starts with our people. Our global team of highly professional and talented individuals is vital to our success. We are working to ensure our people are best placed to support our long-term growth, while delivering benefits and creating working conditions that ensure we attract and retain the top talent.

In Kazakhstan, our People Strategy is driving workforce transformation and we are delivering advanced skills training to large numbers of our employees via our ERG Corporate University. We are also proud to be supporting strategic external skills initiatives in Kazakhstan via our ERG for Schools and ERG for Colleges programmes (p. 19). In doing so, we are securing our future skills pipeline, creating jobs for the future economy and supporting the Government's 2025 'Year of Vocational Professions'.

In the DRC, we are focused on strengthening our talent and skills development initiatives, which will support our future success.

#### Navigating the carbon transition

We are working towards our Net Zero by 2050 climate target in Kazakhstan – as well as our medium-term goal of a 30% reduction in the carbon footprint of our key products (ferrochrome, aluminium and iron ore pellets) by 2035. Despite ERG's current reliance on coal-fired power generation in the country, we recognise the need to reduce our emissions over time. This will be a complex task, given the nature of our infrastructure and third-party energy demand in the country. Nonetheless, we are already taking steps on this journey.



## CHAIRMAN AND CEO STATEMENT

Most notably, in 2024 we commenced power generation at our 150 MW Khromtau wind power project in Kazakhstan, following the commissioning of its first two turbines (out of a total of 24). The remaining turbines were commissioned in August 2025. We are considering further wind power projects in the country.

Furthermore, in early 2025, we signed an EPC contract for the construction of a new ferroalloy gas recycling power plant at the Aktobe Ferroalloys Plant, to provide energy from alternative sources.

In parallel, we are developing a pipeline of broader initiatives to deliver on our climate target – from the use of renewable energy and natural gas through to plant upgrades, production electrification and energy efficiency.

Importantly, many of our products are supporting the broader global energy transition. This includes our cobalt, copper, aluminium and ferroalloys – all of which carry with them high levels of mineral value chain assurance.

### Responsibly managing our environmental impacts

Beyond this, we are committed to the responsible management of all our other environmental impacts. This includes our ongoing, US\$500 million Environmental Strategy to reduce particulate emissions at our metallurgical and power generation operations in Kazakhstan by 56% by 2030.

Our reprocessing and management of mining waste puts circularity at the heart of our business. In Kazakhstan, this includes the reprocessing of chrome oxide-bearing tailings deposits through the application of innovative technology at Donskoy GOK's expanding ERG Green facility.

In the DRC, Metalkol continues to reduce the negative environmental impact of historical third-party tailings by reprocessing them to extract copper and cobalt hydroxide.

### Creating shared value

In 2024, we distributed US\$6,506 million to our employees, suppliers, finance partners, host governments and local communities (2023: US\$7,283 million). The true extent of our positive impact, however, goes much further. It encompasses the creation of thousands of jobs, the economic activity generated by our supply chain and the wider third-party economic benefits driven by our responsibly produced products.

During the year, our global community social investment (CSI) totalled over US\$107 million (2023: US\$52 million). The significant increase was primarily driven by our donation of US\$58 million to help our fellow citizens in Kazakhstan recover from heavy flooding in parts of the country. This was primarily allocated to the construction of more than 780 new houses, the purchase of over 300 apartments, and the repair of housing for affected families. In addition, we also mobilised our people and equipment to support relief efforts in the affected regions.

Our broader focus in the country continued to be on supporting the priorities of local people and aligning our efforts with the Government's national development agenda. In addition, we continue to implement initiatives designed to support the long-term economic diversification of our operating regions. This includes our ongoing support for the Student Entrepreneurship programme,<sup>1</sup> which aims to transform regional universities and colleges into centres of entrepreneurial development. In 2024, the programme was extended to eight universities and engaged over 2,000 students, with the most promising projects awarded funding.

Meanwhile, in Africa, our CSI spending has been focused on addressing local communities' most urgent needs, including food, water, education, health and infrastructure. Our ultimate aim is to develop sustainable and self-sufficient economic ecosystems.

### Building constructive and transparent government relations

In Kazakhstan, we actively engage with the Government on its efforts to drive sustainable economic growth, including its focus on the domestic production of more advanced industrial products, local procurement, high-quality job creation and strengthened occupational health and safety standards, as well as its environmental ambitions (such as national carbon neutrality by 2060).

As a long-term investor in the DRC, we are committed to working openly and constructively with the Government there. This is with the aim of maintaining positive relations, achieving mutually beneficial outcomes and supporting local and national development.

As a leading cobalt producer, we are also participating in discussions with the DRC authorities to find the best, most sustainable way forward for the domestic industry. This follows the Government's temporary suspension in early 2025 of all cobalt exports from the country.

### Driving assurance and sustainability best practice

We want our customers and end users to have full trust in the integrity of our products. This is why we apply rigorous internal and external assurance frameworks that demonstrate our commitment to responsible sourcing, processing and trading.

In the DRC, our Metalkol operation delivers the highest levels of traceability and assurance. In 2024, this included the publishing of its fourth Clean Cobalt and Copper Performance Report and undergoing a third RMI<sup>2</sup> Responsible Minerals Assurance Process assessment. Metalkol also became the first tailings reprocessing operation globally to commence the Copper Mark assurance process.

Similarly, our Responsible Aluminium Framework in Kazakhstan delivers 'beyond compliance' assurance to our value chain partners and ensures we meet the London Metal Exchange's Responsible Sourcing requirements.

We are also proactively preparing to comply with the European Union's Corporate Sustainability Reporting Directive. To ensure alignment with future compliance requirements, we have engaged independent third-party experts to evaluate our current readiness and support the identification of areas for further improvement.

### The road ahead

We can look to the future with confidence and optimism. Although there will be challenges ahead, I believe these are more than outweighed by the opportunities. We aim to build a resilient, adaptable and future-focused company that will deliver sustainable shared value for generations to come.

The world is undeniably changing, and we want to be a leading part of that change. We will invest, innovate and explore in line with our Mission and in pursuit of a strong future.

#### Shukhrat Ibragimov

Chairman of the Board of Managers and Chief Executive Officer

<sup>1</sup> ecosystemerg.kz

<sup>2</sup> Responsible Minerals Initiative.

## OUR NEW STRATEGY

# Maintaining business resilience and creating societal value

Our new three-year business Strategy aims to build a successful, resilient company by combining modernisation, innovation and responsibility to unlock new growth for the Group. Focused on improving efficiency and strengthening financial resilience to create a solid platform for future growth, it relies on the collective contribution of our diverse, talented workforce, united by the shared goal of establishing ERG as an industry leader.

A resilient business also enables us to create societal value locally, nationally and globally. Our most measurable impact lies in the direct economic value we generate, including employee wages and benefits, supplier payments, significant tax contributions and community investments. These, in turn, drive indirect and induced economic benefits across our value chain (p. 12).

Through the supply of responsibly produced cobalt, copper, aluminium and ferroalloys, we support global economic activity and the energy transition. This is underpinned by robust value chain assurance.

As we advance our Strategy, we will continue to prioritise workforce safety and minimise our environmental impacts, ensuring compliance with global standards and reinforcing our market position.

## KEY PILLARS OF OUR NEW STRATEGY

### Strengthening financial resilience

Accelerating debt reduction and resource reallocation to develop ERG's production facilities. Our goal is to substantially decrease our debt level, creating the foundation for future investment projects.

### Increasing production and efficiency

Maximising capacity utilisation at existing facilities and reducing costs. This will allow us to operate with higher efficiency and minimise our dependence on market fluctuations.

### Focusing on key production assets

Prioritising the development of ERG's core production facilities in Kazakhstan and other jurisdictions, as well as nurturing conditions for well-being in our key operating regions. This will reinforce our foundation for sustainable long-term growth.

### Enhancing corporate governance

Ensuring the transformation of our management model, which implies clear responsibilities with reasonable delegation of authority and timely decision-making. This will help us maintain flexibility, build trust and strengthen relationships with our key partners. Retaining and developing our employees, improving their qualifications and contributing to professional growth is an area of particular focus.

## MATERIAL ISSUES

### Related UN SDGs



We are committed to delivering sustainable, long-term value – to the benefit of our shareholders and our wider stakeholders. In line with our new Strategy, this means ensuring we are financially resilient, operationally efficient, invest in our key production assets and manage our business effectively. This will not only secure the future of our business, but will also provide a foundation for longer-term growth.

### Management approach

We are focused on developing our core operations in Kazakhstan and on optimising our assets in the DRC (p. 11)

In parallel, ERG Exploration is working to grow our resource base in Kazakhstan. This includes the application of the (CRIRSCO-and JORC-aligned) KAZRC standards to identify and assess relevant opportunities, including those focused on bauxite, rare earth minerals, chromite and copper.

ERG Capital Projects oversees the methodological and organisational aspects of all capital projects in Kazakhstan and develops and executes our most strategic capital projects. All proposed capital projects in the country are assessed by Independent Project Review teams, while in Africa we carry out independent project reviews using third-party specialists. In 2024, we spent US\$1,163 million on capex (2023: US\$1,440 million).

In Kazakhstan, our Operational Efficiency team identifies and implements efficiency and productivity improvements on an ongoing, systematic basis. It does so by applying lean management principles, working across teams and listening to our employees. In parallel, our R&D Centre identifies technological improvements that can be applied to our existing mining and metallurgical processes, and develops new, innovative technology for application across our business.

In terms of value distribution, our key stakeholders are our employees, suppliers and contractors, local communities (and regions), host governments and our capital providers.

# OUR BUSINESS

## Our commodities – and role in the energy transition

ERG is well-positioned to help drive the global energy transition and to benefit from increased demand for transition metals. This is reflected in our responsible production of aluminium (for infrastructure, transportation and construction), copper (for infrastructure, transportation and electronics) and cobalt (for lithium-ion batteries) – as well as ferroalloys (for the development of lower-carbon power generation infrastructure).<sup>1</sup>

The fact that we are able to deliver these products, along with high levels of responsible minerals value chain assurance, means we are helping ensure global decarbonisation efforts do not have unintentional negative environmental and social consequences. Examples include the application of our:

- **Responsible Aluminium Framework**, which supports our compliance with the London Metal Exchange's Responsible Sourcing Requirements (p. 24)
- **Clean Cobalt and Copper Framework** in the DRC. This includes externally-assured reporting at Metakol, which is compliant with the RMI Responsible Minerals Assurance Process and has commenced the Copper Mark assurance process (p. 24)

## GROWTH AND ASSET MAINTENANCE

### DEVELOPMENT OF OUR ASSETS IN KAZAKHSTAN

In 2024, we launched our flagship Bolashak chromium mine<sup>2</sup> at Donskoy GOK. This mine represents one of the largest investment projects in Kazakhstan (see below).

In addition, we:

- **Kacharsky Mine:** Continued to advance the reconstruction of the iron ore mine, including through the operationalisation of a fourth batch of high-performance dump trucks and excavators
- **Hot Briquetting Iron (HBI) Production Plant:** Approved the construction of our new plant in Rudny. This is expected to produce 2 million tonnes of HBI a year and create 1,000 new employment positions

- **Iron ore processing facilities at Rudny:** Continued to modernise our facilities to support the production of high-grade concentrate and pellets to be used at the HBI Production Plant

- **Pavlodar Aluminium Plant:** Advanced the ongoing modernisation of the plant, including its causticisation, agitation, thickening, washing and calcining processes
- **Soft Coke Plant:** Completed the construction and commissioned our new plant, which is delivering cost-effective reductants (for use at Kazchrome's smelting workshops and for external sale) at design capacity
- **ERG Green:** Commenced the construction of a new flotation enrichment section at our ERG Green tailings reprocessing initiative at Donskoy GOK (p. 16)

- **Khromtau wind project:** In 2024, we commissioned the first two of 24 turbines at our 150 MW wind power project near Donskoy GOK (p. 15). The remaining turbines were commissioned in August 2025.

### ASSET OPTIMISATION IN THE DRC

In Africa, we focused on further improving processing efficiency of our Metakol operation, including through the use of alternative reagents, as well as cost optimisation. In addition, we started to extract ore as part of our Cut 4 project at Frontier, which has the potential to extend the life of our Frontier mine in the DRC by 10 years. We also continued to investigate the potential for a further life of mine extension focused on underground development (known as Frontier Deeps).

### BOLASHAK MINE AT DONSKOY GOK IN KAZAKHSTAN

In late 2024, ERG launched its Bolashak chromium mine at Kazchrome's Donskoy GOK operation in Kazakhstan. Bolashak ranks among the deepest underground ferrous metal mines in the world, reaching a depth of 1,200 metres. Extraction will be carried out using sub-level caving technology and a fully mechanised block caving system. In addition, the mine uses high-performance, automated drilling rigs, which are remotely controlled from the surface. An automated, driverless lifting machine has also been installed.

Once the mine reaches its full design capacity, it will produce up to 7.5 million tonnes of ore a year. This will ensure a stable, long-term supply

of high-quality input materials for the Group's ferroalloys plants and will help ERG maintain its position as one of Kazakhstan's key exporters. Total investment in the mine will exceed US\$2 billion, and approximately 1,800 jobs will be created at the site.

In March and during May-July 2025, mining and construction activities at the mine were temporarily suspended following a number of spontaneous hydrogen ignitions. To eliminate root causes and prevent the recurrence of such incidents, we have engaged leading domestic and international research institutions. A series of immediate measures have been implemented.

These include the drilling of new wells for the safe and controlled removal of the gas-air mixture, the optimisation and continuous improvement of the mine ventilation system and the introduction of a continuous gas monitoring system with real-time data transmission to the mine dispatcher. We have also implemented an underground personnel and transport tracking system. Collaboration with the research institutions is ongoing.

In August 2025, work at the mine resumed after the necessary permits were received from state supervisory authorities.

<sup>1</sup> Including gas, wind and nuclear.

<sup>2</sup> Previously called Phase 2 development of the 10<sup>th</sup> Anniversary of Independence of Kazakhstan Mine.

## TECHNOLOGY, EFFICIENCY AND DIGITALISATION

### SMART MINE PROGRAMME

In 2024, we advanced the implementation of our Smart Mine programme in Kazakhstan, which is maximising the efficiency of our operational fleets. It does so using specialised dispatch systems, advanced software and onsite 4G networks. In 2024, our key focus areas included:

- Implementation of a transport dispatch system to optimise auxiliary fleet operations at the SSGPO and Kachary Ruda mines
- Deployment of high-precision excavator positioning and a 'digital twin'<sup>1</sup> for real-time equipment tracking at the Kacharsky mine
- Piloting of three autonomous dump trucks at the Vostochny pit<sup>2</sup>

### EFFICIENCY AND OPTIMISATION

In Kazakhstan, our operational efficiency efforts focused on performance management at the sites, improving production efficiency at Aksu Ferroalloys Plant, as well as increasing mining productivity at EEC's Vostochny pit. In addition, we advanced the rollout of our Manufacturing Execution System, continued to develop our ERG Way Plus Production System and commissioned Toyota Engineering Corporation to carry out lean principle audits at KAS and Aksu Ferroalloys Plant.

In Africa, we launched a cost optimisation programme with the objective of achieving meaningful reductions in expenditure over a three-year period.

### OPERATIONAL APPLICATION OF AI: SMART MACHINE VISION SYSTEM

In 2024, we implemented our Smart Machine Vision System at Donskoy GOK. This AI-powered system predicts the overheating of conveyor belts before it actually occurs, enabling operators to address issues in advance. It also detects belt damage at an early stage, allowing potential defects to be proactively addressed during scheduled shutdowns. The system has reduced the duration of idle downtime caused by overheating by 75%, while 80% of the defects identified during the entire implementation period were confirmed by human operators. Given the success of this initiative, we will continue to investigate how AI can be used to further optimise our operations.

## Planning

Key plans for 2025 and beyond include the:

- Ongoing development of our core assets in Kazakhstan and the DRC, as well as the development of additional wind power generation capacity (p. 16)
- Preparation for the start of gallium production in Kazakhstan
- Construction of a ferroalloy gas recycling power plant in Kazakhstan
- Exploration of options around the future of our BAMIN project in Brazil, including possible new investors and / or purchasers
- Extension and further development of our Smart Mine programme in Kazakhstan
- Continuation of our efforts to develop and increase our utilisation of both local and domestic suppliers in Kazakhstan and the DRC

## VALUE DISTRIBUTION

### US\$6,506M

Total economic value distributed to our suppliers, workers, finance providers, host governments and local communities (2023: US\$7,283 million).<sup>3</sup>

We are proud of the value we generate for the countries in which we operate and of our promotion of broader social development, including through our tax payments (p. 23) and local content.

### 60%

The percentage of goods and services procured from domestic suppliers in Kazakhstan<sup>4</sup> (2023: 48%). We continue to support local producers in our mining towns.

This included 21.5%<sup>5</sup> of our in-country procurement spend in 2024 (2023: 19%).

In Africa, we procured 85% of our goods and services from domestically registered companies (2023: 86%). We are also working with companies in the DRC to help them achieve the international standards and operational capabilities they need to service our operations directly, as well as the domestic certification requirements of the DRC's Regulatory Authority for Subcontracting in the Private Sector (ARSP).

In Brazil, 100% of our procurement comes from companies registered in Brazil (2023: 100%), with 20% from companies located in the state of Bahia (2023: 39%).

1 I.e. 3D digital models that allow real-time tracking of the movements, efficiency and status of equipment and vehicles.

2 Following this pilot, we decided to expand the use of autonomous dump trucks at the mine and at the Kacharsky mine.

3 The decrease in 2024 compared with 2023 primarily reflects a reduction in both operating and capital expenditures, driven by the implementation of multiple cost optimisation initiatives. This was partly offset by wage indexation and increased community social investment in Kazakhstan to help address the consequences of the spring floods.

4 Excluding intragroup purchases. Includes goods, works and services.

5 Including intragroup purchases. The following mining towns are included in this calculation: Aksu, Ekibastuz, Arkalyk, Lisakovsk, Rudny and Khromtau.

## PRODUCTION AND MARKET DYNAMICS

| Division                                    | 2024 revenue <sup>1</sup> | Key product                               | 2024 production <sup>2</sup> | Key dynamics                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------------------------|---------------------------|-------------------------------------------|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Ferroalloys</b>                          | US\$2,136M<br>▼ 8.3%      | Ferroalloys                               | 1,863.1kt gross<br>▲ 14%     | <ul style="list-style-type: none"> <li>Higher production primarily reflected the increased delivery of chrome ore from Donskoy GOK</li> <li>Prices were in general decline after record highs in 2022 and elevated levels in 2023</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Iron ore</b>                             | US\$1,070M<br>▼ 1.9%      | Saleable iron ore concentrate and pellets | 10,097.5kt<br>▲ 3.6%         | <ul style="list-style-type: none"> <li>Prices weakened at the start of 2024, but stabilised due to a balanced seaborne market</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Alumina and aluminium</b>                | US\$1,133M<br>▲ 5.3%      | Alumina                                   | 1,530kt<br>▲ 8.5%            | <ul style="list-style-type: none"> <li>Increased alumina production reflected stabilised and improved production processes</li> <li>Increased aluminium production reflected the plant's achievement of its maximum production capacity</li> <li>LME average aluminium prices rose by 8% in 2024, primarily driven by tighter alumina supply</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                             |                           | Aluminium                                 | 264.5kt<br>▲ 1.4%            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Cobalt, copper and other non-ferrous</b> | US\$1,502M<br>▼ 1.6%      | Saleable copper metal                     | 101.2kt<br>▼ 1.4%            | <ul style="list-style-type: none"> <li>Decreased copper metal production at Metalkol reflected power disruptions and lower recovery rates, while lower cobalt production reflected lower feed grade. We are working to enhance the operation's production processes and power supply options</li> <li>Significantly lower copper concentrate output at Frontier was mainly due to delays in the Cut 4 ramp-up and ore being lower-grade than planned during the reporting period</li> <li>Cobalt metal prices continued to decline in 2024, averaging US\$11.26 / lb – a 25% year-on-year decrease</li> <li>Although demand from the electrical vehicle sector continued to grow, it did so at a more moderate pace due to EU and US subsidy reductions</li> </ul> |
|                                             |                           | Saleable copper concentrate               | 38kt<br>▼ 37.4%              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                             |                           | Saleable cobalt hydroxide                 | 19kt<br>▼ 5%                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Energy</b>                               | US\$386M<br>▲ 4.9%        | Coal                                      | 32,528.6kt<br>▲ 0.4%         | <ul style="list-style-type: none"> <li>Thermal coal production was relatively stable, while semicoke production increased significantly due to the commissioning of our new Soft Coke Plant</li> <li>Marginally lower electricity output reflected the impact of repairs at the Aksu and Aktobe power plants</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                             |                           | Electricity                               | 17,395.9 GWh<br>▼ 1.6%       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

<sup>1</sup> And year-on-year change.

<sup>2</sup> And year-on-year change.

<sup>3</sup> FOB Australia.

<sup>4</sup> API2.



## MATERIAL ISSUES

### Related UN SDGs



We manage our environmental impacts actively and responsibly. This is both a matter of safeguarding our stakeholders' interests and of supporting the long-term sustainability of our business in terms of social licence, the future competitiveness of our products, efficient resource use and our ability to thrive in a more carbon-constrained environment.

### Management approach

Our key operations in Kazakhstan are certified to ISO 14001 and are the focus of our Decarbonisation Strategy, including our goal of Net Zero by 2050. In Africa, our Safety, Health and Sustainability (SHS) management system is informed by ISO 14001 (with plans to achieve certification at Metalkol in 2025). At BAMIN in Brazil, our environmental management system helps ensure its compliance with environmental licence requirements. In addition, our key assets in Kazakhstan are certified to the ISO 50001 energy management system standard.

Key areas of environmental focus include:

- The responsible management of our impacts on air quality in our operational regions in Kazakhstan and (in the context of our 10-year Environmental Strategy for Kazakhstan<sup>1</sup>) the application of international environmental standards
- Pursuit of our Decarbonisation Strategy in Kazakhstan, which is the main source of our carbon emissions
- The pursuit of more 'circular' business opportunities, including waste reprocessing in both Kazakhstan and the DRC

In addition, in 2024 we completed the decommissioning of all equipment in Kazakhstan containing polychlorinated biphenyls.

# ENVIRONMENT

<sup>1</sup> First implemented in 2018.

## MANAGING IMPACTS ON AIR AND WATER

### >US\$500M<sup>1</sup>

Value of our ongoing, 10-year Environmental Strategy to bring our metallurgical and power generation operations in Kazakhstan in line with European Union particulate air emissions standards.

### 56%

Expected reduction in particulate emissions in Kazakhstan by 2030. In 2024, we continued to install high-impact filter technology at our sites. This included Pavlodar Aluminium Plant, Aksu Ferroalloys Plant, EEC and the Vostochny coal pit. Management of our air emissions was further supported by our commissioning of at-source, automated monitoring systems at Pavlodar Aluminium Plant, Aksu Ferroalloys Plant, Aktobe Ferroalloys Plant, EEC, 3-Energoortalyk, Donskoy GOK and KAS.

## ENERGY AND CLIMATE CHANGE

### NET ZERO by 2050

The commitment<sup>2</sup> sitting at the heart of our Decarbonisation Strategy for Kazakhstan (see *erg.kz (Climate Change)*). This includes a focus on renewable energy, the use of natural gas, plant modernisation, the electrification of production, energy efficiency and the use of ferroalloy off-gas to generate power. In early 2025, we signed an EPC contract for a new ferroalloy gas recycling power plant at Aktobe Ferroalloys Plant.

### -440,000 tonnes

Amount of annual carbon emissions that are expected to be avoided once our 150 MW Khromtau wind power project near Donskoy GOK is fully operational. Two of the site's 24 wind turbines (6.25 MW each) were commissioned in 2024, and the remaining turbines were commissioned in August 2025.

## ENERGY CONSUMPTION AND GHG EMISSIONS

The overwhelming majority of our GHG emissions takes place in Kazakhstan (with around 81% of the direct power we use in the country being generated using coal), while our carbon footprint in Africa is relatively small due to the fact that the majority of the power we use in the DRC

is generated from hydropower. Similarly, the scale of our operations in Brazil means our GHG emissions are limited there.

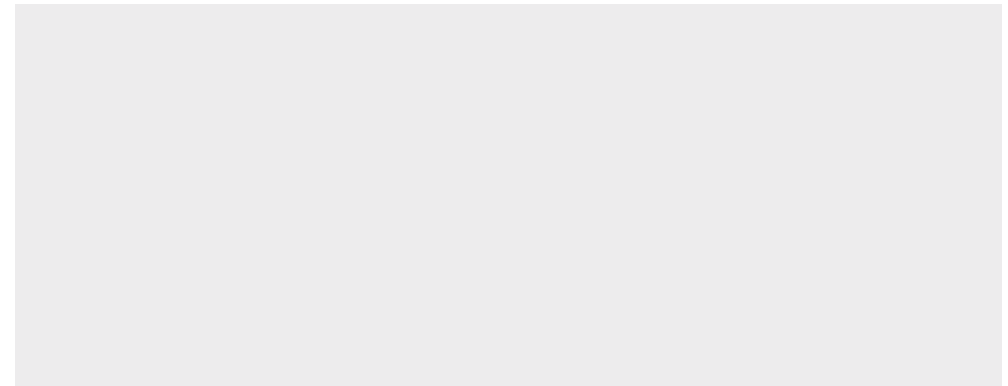
In 2024, we introduced an automated system for calculating GHG emissions at our operations in Kazakhstan.

### Energy consumption breakdown (terajoules)

| Type                  | 2024    | 2023    |
|-----------------------|---------|---------|
| Direct                | 272,862 | 273,244 |
| Indirect <sup>3</sup> | 5,337   | 4,352   |
| Total                 | 278,199 | 277,596 |

### GHG emissions (million tonnes CO<sub>2</sub>e)

| Type                           | 2024 | 2023 |
|--------------------------------|------|------|
| Scope 1 emissions <sup>4</sup> | 29.6 | 29.3 |
| Scope 2 emissions <sup>5</sup> | 0.1  | 0.1  |
| Total                          | 29.7 | 29.4 |



<sup>1</sup> The cost increase for the implementation of the Environmental Strategy is driven by rising equipment prices and an increased number of projects.

<sup>2</sup> With an interim goal of achieving a 30% reduction in the carbon footprint of key products by 2035.

<sup>3</sup> Excluding internal purchases of internally generated power.

<sup>4</sup> I.e. GHG emissions that result from the consumption of direct energy for the generation of electricity and / or heat / steam, used in mining, production and for ERG-controlled transportation activities (CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O only), as well as other emissions sources in industrial processes in Kazakhstan. Conversion factors are from the 2006 IPCC Guidelines for National Greenhouse Gas Inventories – Stationary and Mobile Combustion. Our production sites in Kazakhstan (which are covered by an emissions trading framework) are subject to government-mandated GHG inventories, in line with national guidelines. The outcomes are subject to reasonable assurance by an independent accredited body.

<sup>5</sup> I.e. GHG emissions that result from the consumption of indirect energy purchased from third parties not owned or controlled by ERG (based on operational control of assets). The conversion factors for calculating purchased electricity and purchased heat and steam in Kazakhstan are based on the national Fuel and Energy Balance for 2022 (in the format of the International Energy Agency, released on 01.08.2023, by the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of Kazakhstan). The coefficients for calculating purchased electricity in Brazil are based on data from the energy supplier.



## TAILINGS AND BROADER WASTE MANAGEMENT

### 596,000 tonnes

Total amount of chrome oxide-bearing tailings deposits reprocessed in 2024 through our ERG Green initiative at Donskoy GOK. This was used to produce around 170,000 tonnes of chrome concentrate.

ERG Green uses innovative technology to enhance the enrichment of tailings at a recovery rate of more than 60%. In July 2024, we commenced the construction of a new flotation enrichment section to support plans for the ultimate production of more than 500kt of chrome concentrate per year.

The impact of the project in terms of waste management, pollution prevention and water management means it complies with relevant green loan principles,<sup>1</sup> and can attract financing on that basis.

In addition, ERG Recycling produced and / or sold more than 730,000 tonnes of recycled products in Kazakhstan (2023: 1.5 million tonnes), generating US\$14.9 million in revenue.<sup>2</sup>

### 7.7 million tonnes

Total amount of third-party historical tailings responsibly reprocessed by our Metalkol operation in the DRC in 2024, prior to their relocation to our new tailings storage facility. This includes 3.9 million tonnes of dry stacked tailings extracted from the Kingamyambo Tailings Dam (2023: 4.1 million tonnes) and 3.8 million tonnes extracted from the Musonoi River (2023: 3.8 million tonnes). These tailings were used to produce 101.2kt of copper and 19kt of cobalt hydroxide (2023: 102.6kt of copper / 20kt of cobalt hydroxide).

Metalkol will, over time, reduce the negative impact of these historical tailings on local air, water and land quality – while also rehabilitating post-extraction areas.

## Planning

Key plans for 2025 and beyond include the:

- Continued installation and commissioning of particulate filter technology at operations in Kazakhstan
- Carbon footprint calculation at Metalkol, with subsequent rollout to other sites in Africa, to support target setting and the development of action plans in this area
- Ongoing implementation of projects to support our decarbonisation, including the possible construction of a second, 200 MW wind power project in Kazakhstan. In Africa we are exploring opportunities to implement renewable energy projects, with priority given to solar energy
- Expansion of our ERG Green initiative, including the completion of its flotation enrichment section (planned for the second half of 2025)

<sup>1</sup> As confirmed in December 2024 by the AIFC Green Finance Centre, gfc.aifc.kz.

<sup>2</sup> Including intercompany sales.

# SOCIAL

## MATERIAL ISSUES

### Related UN SDGs



We are committed to the responsible management of our social impacts. This is about developing a safe, motivated, skilled and loyal workforce – which, in turn, supports the long-term resilience of our business. Outside of our organisation, this means maximising our positive impacts at local, regional and national level.

## Management approach

### Employees

We put health and safety first and remain committed to achieving Zero Harm. Our operations in Kazakhstan are certified to ISO 45001, while our operations in Africa and Brazil apply comprehensive management systems informed by the same standard.<sup>1</sup>

We apply a structured framework to support the ongoing development of an innovative and agile workforce, while our approach to employee relations is underpinned by compliance with international standards, labour legislation and constructive engagement with employee unions.

### Communities

We are committed to minimising the potential adverse impacts of our activities and undertake human rights risk assessments and/or due diligence in cooperation with local stakeholders.

We manage community impacts in Kazakhstan through our international standard environmental management systems, along with impact assessments, public consultations and large-scale community surveys in our mining towns (p. 21). In Africa, impacts are addressed via our integrated Safety, Health and Sustainability (SHS) management system and grievance mechanisms. In Brazil, we use a third-party system for grievance handling and engagement.

We also seek to maximise our positive impacts via the delivery of community social investment (CSI). Much of this is delivered under mandatory frameworks and partnership agreements in our host countries (p. 22).

<sup>1</sup> ISO 45001 certification at Metalkol is planned for early 2026.

## HEALTH AND SAFETY

### Pursuit of ZERO HARM

In 2024, we implemented multiple measures to improve health and safety, following an unacceptable decline in performance. In Kazakhstan, this included:

- Beyond-compliance training for more than 17,000 employees at our Safety Academy<sup>1</sup>
- Rollout of our 'ERG Vision' initiative, which has seen the deployment of around 3,000 safety monitoring cameras that integrate automated video analysis, with plans for a further 20,000 installations
- Introduction of strengthened behavioural safety audits, managed through a new digital platform, with direct involvement from senior regional managers
- Implementation of measures to enhance the safety of lifting operations, including via the modernisation of overhead crane cabins at our ferroalloys plants
- Enhancement of the procedure for organising and executing high-risk work, including stricter controls and requirements
- Implementation of the 'Lockout/Tagout' (LOTO) system for the isolation of hazardous energy sources

- Rollout of automated pre-shift medical checks for more than 4,000 employees<sup>2</sup> and comprehensive medical assessments for more than 7,000 employees in higher-risk roles<sup>3</sup>

To further strengthen our safety management, in February 2025, we hosted a Forum for our safety leaders in Kazakhstan to support the development of a new Safety Roadmap.

In Africa, we primarily focused on advancing our Visible Felt Leadership (VFL) programme and strengthening our contractor risk management processes.

### 33,000 respondents

Number of employees who responded to our annual well-being survey in Kazakhstan (2023: 17,600). This focused on five key areas of well-being: health, social, professional, financial and the living environment. We have integrated the survey outputs into 'ERG Care', our holistic employee well-being programme. Beyond this, we continued to implement our large-scale 'Psychological Safety' programme, which included the delivery of training to 800 line managers.

## OCCUPATIONAL HEALTH AND SAFETY PERFORMANCE

It is with great regret that we report the loss of 11 employees and one contractor in work-related incidents in 2024 (2023: three employees and seven contractors). Eleven of these incidents took place in Kazakhstan and one in Africa. We extend our heartfelt condolences to everyone impacted by these events.

We have investigated each incident thoroughly to identify the causes, inform appropriate mitigation measures and help minimise the risk of recurrence (see opposite for more details).

In 2024, lost time injuries (LTIs) increased to 127 (2023: 86).<sup>4</sup> This resulted in a lost time injury frequency rate (LTIFR) of 1.12 (2023: 0.71).<sup>5</sup>

### Group key safety indicators by year

| Indicator  |                | 2024 | 2023 |
|------------|----------------|------|------|
| Fatalities | Employees      | 11   | 3    |
|            | Contractors    | 1    | 7    |
| LTIs       | Employees      | 116  | 83   |
|            | Contractors    | 12   | 21   |
| LTIFR      | Employees only | 1.12 | 0.71 |

### Key safety indicators by region

| Indicator  |                | Kazakhstan | Africa | Brazil |
|------------|----------------|------------|--------|--------|
| Fatalities | Employees      | 10         | 1      | 0      |
|            | Contractors    | 1          | 0      | 0      |
| LTIs       | Employees      | 109        | 7      | 0      |
|            | Contractors    | 11         | 0      | 1      |
| LTIFR      | Employees only | 1.22       | 0.52   | 0.00   |

<sup>1</sup> Part of the ERG Corporate University.

<sup>2</sup> At Donskoy GOK and Aktobe Ferroalloys Plant.

<sup>3</sup> I.e. to help identify health issues that may contribute to occupational health and safety incidents.

<sup>4</sup> Employees only and including employee fatalities.

<sup>5</sup> Employees only and including employee fatalities.

## TALENT ATTRACTION, DEVELOPMENT AND RETENTION

### 66,713 employees<sup>1</sup>

Total number of people in our global workforce. Our people are the foundation of our success, and we are investing in them accordingly. In Kazakhstan, we continued to drive workforce transformation with a focus on workshop supervisors, recognising their key role in shaping positive change and leading operational teams. This includes enhanced competency assessments, the identification of high-potential talent for accelerated development and cultural transformation. In Africa, we also focused on strengthening our talent and skills development initiatives to support our future success.

### c. 35%

The proportion of our global workforce under the age of 35. Given demographics in our sector, attracting and retaining young people is a strategic priority for the Group. We are implementing a holistic programme for our young employees focused on supporting their professional, social and financial well-being, improving their health and fitness, and enhancing their conditions inside and outside of work. Our pipeline of young professionals is directly supported by our 'Education Ecosystem' approach in Kazakhstan.

### Number of employees by region

| Region                         | 2024   | 2023   |
|--------------------------------|--------|--------|
| Kazakhstan                     | 61,433 | 62,033 |
| Africa                         | 4,955  | 5,143  |
| Brazil                         | 180    | 257    |
| Corporate offices <sup>2</sup> | 145    | 179    |
| Total                          | 66,713 | 67,612 |

## BUILDING AN 'EDUCATION ECOSYSTEM' IN KAZAKHSTAN

Our 'Education Ecosystem' is our holistic approach to internal and external skills development. This is strengthening our long-term talent pipeline – particularly via the attraction and development of young specialists – and contributing to a positive future for Kazakhstan. Key initiatives include:

- **ERG Mektepke (ERG for Schools)**, which includes the modernisation of existing schools and the construction of new schools in our operating regions, alongside support for advanced skills development in areas such as artificial intelligence and emerging technologies<sup>3</sup>
- **ERG for Colleges**, which is establishing future-oriented vocational educational programmes across 23 regional colleges and three universities. These programmes are closely aligned with the roles identified in the Atlas of New Professions<sup>4</sup>

- **ERG and College Alliance**, which aims to enhance cooperation between the Government, educational institutions and business to support the development of a future-orientated, vocational education system. As part of this initiative, we have provided internships at ERG sites for 1,600 students, as well as work placements for more than 800 graduates
- **ERG Corporate University**, which is supporting the transformation of ERG's workforce. In 2024, 44,000 employees received training (2023: 54,000) and more than 700 new programmes were developed across five dedicated academies<sup>5</sup>

Through these initiatives – as well as the ongoing development of new professions and the digital transformation of our workplaces – ERG proudly supports the Government's 'Year of Working Professions' in 2025.<sup>6</sup>

<sup>1</sup> Employees holding a written contract of employment with ERG as at 31 December 2024. This figure does not include contractors.

<sup>2</sup> Includes employees at offices in Europe, the UAE and China. The headcount of corporate offices in Kazakhstan, Africa and Brazil are included within each relevant region.

<sup>3</sup> This is being implemented in partnership with leading third-party education providers, as well as the Ministry of Education of the Republic of Kazakhstan.

<sup>4</sup> The Atlas is a strategic planning tool that includes advanced forecasting of the most critical and in-demand future professions. ERG is supporting the evolution of the Atlas, which also informs the ongoing development of our strategic college programmes and will inform the future creation of 'innovation hubs' (see Planning).

<sup>5</sup> Namely, Occupational Health and Safety, Technologies and Production, Maintenance and Repairs, Leadership, and Project Management and Digitalisation.

<sup>6</sup> This visionary initiative was announced in September 2024 by the President of the Republic of Kazakhstan Kassym-Jomart Tokayev. It aims to elevate the status of vocational careers, address labour shortages and modernise the country's technical and vocational education system.

## EMPLOYEE RELATIONS

### >US\$39M

Total amount invested in improving employee working conditions and living standards in Kazakhstan in 2024. Our holistic approach is shaped by the significant inter-connectivity between our workforce and local communities in our operating regions. We also provide competitive employee benefits, including free medical services, through our dedicated employee medical centre and enhanced, 'beyond compliance' healthcare cover. In addition, we have established 'MERGEN' stores across our operating regions, where employees can purchase domestically produced essential household items at below market rates.

### >86%

Proportion of our employees across the Group who are trade union members, with collective bargaining agreements in place at the majority of our operations. Our approach to employee relations is underpinned by the maintenance of open and constructive communication channels with our employees' unions. We respect the right of all employees to join unions and to freely engage in collective bargaining.

## INVESTING IN ENHANCED WORKING CONDITIONS AND LIVING STANDARDS IN KAZAKHSTAN (2024)

### IN THE WORKPLACE

#### US\$3.6M

To repair and enhance onsite facilities

#### US\$1.4M

To enhance onsite catering

#### US\$5.6M

To enhance employee transportation

### OUTSIDE THE WORKPLACE

#### US\$26M

To enhance the local urban environment as part of the Regional MoUs

#### US\$2.5M

To construct and provide housing to employees on preferential terms

#### 280

ERG employees acquired housing on preferential terms

## Planning

Key plans for 2025 and beyond include the:

- Implementation of our 'Year of Safety' in Kazakhstan, with a focus on safety procedures, safety culture and advanced technologies
- Enhancement of safety KPIs in our Africa region – and the implementation of a safety improvement plan at Metalkol as part of its ongoing ISO 45001 certification efforts, with findings to be integrated region-wide
- Ongoing digital transformation of our workspaces in Kazakhstan, as well as the development of new professions and the creation of 'innovation hubs' in partnership with technical universities
- Construction of multiple affordable apartments for employees in Khromtau and Lisakovsk, as well as further investment to enhance catering at our operations in Kazakhstan

## COMMUNITY IMPACTS

### 7,500 residents

The approximate number of residents (including ERG employees) who participated in our annual large-scale survey in Kazakhstan in 2024 (2023: around 6,500).<sup>1</sup> These annual surveys are undertaken with support from local akimats (regional governments) and aim to identify and monitor the key challenges facing local residents. We will use the survey findings to evolve and enhance the CSI programmes being implemented in partnership with local akimats.

### ACTIVE GRIEVANCE MANAGEMENT

We maintain appropriate grievance mechanisms and procedures across all our operations. In Kazakhstan, this includes comprehensive impact assessments and public consultations whenever undertaking major developments or operational changes. In 2024, we carried out 20 public consultations in Kazakhstan (2023: 23). No significant grievances were raised during these hearings or through any of our other community relations channels, including our annual large-scale survey. In Africa, 32 complaints were raised via site-based grievance mechanisms (2023: 29), 23 of which have been resolved. These complaints related to employee behaviour, impacts on crops and compensation claims for property damage, among other issues. Finally, we received 162 complaints via our community grievance management and engagement system in Brazil (2023: 103) – all of which were resolved during the year. Key complaints related to contractor employment practices, among other issues.

## COMMUNITY SOCIAL INVESTMENT

### US\$95M

CSI spending in Kazakhstan in 2024 (2023: US\$42.5 million), with the increase primarily reflecting a US\$58 million donation to support reconstruction efforts following heavy flooding in the country in spring 2024. Much of our funding is channelled through our long-term regional development programme, which supports socio-economic development in our mining towns and operating regions. Delivered in partnership with national and regional governments, including via our Regional MoUs,<sup>2</sup> our efforts are guided by structured community engagement and target local priorities such as improved living standards, education, youth skills, healthcare, and sports and well-being.

### US\$10.4M

CSI spending in Africa in 2024 (2023: US\$8 million), much of which is delivered under our mandatory Cahier des Charges and through our contribution of 0.3% of annual turnover. This is helping to address the development priorities of 58 communities, and plays an indirect role in supporting many more. Our long-term aim is to empower local communities to prosper well beyond the lifespan of our operations. This includes a focus on agriculture and alternative livelihoods, clean water, education, healthcare and infrastructure. In Brazil, our CSI contributions amounted to US\$1.8 million (2023: US\$1.5 million), with the majority relating to our mandatory environmental plan.

<sup>1</sup> Specifically, this focused on our mining towns – Lisakovsk, Rudny, Aksu, Khromtau – as well as the settlements of Kachary and Oktyabrsky.

<sup>2</sup> Regional MoUs are strategic partnerships between ERG and regional authorities (including as part of our licensing obligations).

## KEY EXAMPLES OF OUR COMMUNITY SOCIAL INVESTMENT (2024)

### KAZAKHSTAN

#### US\$58M

Amount paid for the repair and reconstruction of housing, roads and utilities, and to address property damage, following heavy flooding

#### US\$2.1M

Amount invested in the construction of a 400-seat cultural centre in Khromtau. Since 2023, total investment in the project has amounted to around US\$4 million

#### 1,200 NEW SCHOOL PLACES

Construction of a school for 1,200 students in Rudny, which was opened in September 2025

### AFRICA

#### US\$2.3M

Funding to support 13 schools near Boss Mining, benefiting more than 4,400 students and 128 teachers (2023: US\$2.2 million)

#### ALTERNATIVE LIVELIHOODS

The purchase of mechanised agricultural equipment and related capacity building for communities near Frontier, as well as the distribution of agricultural inputs to community members from nine villages near COMIDE

#### 31 BOREHOLES

The delivery of 31 solar-powered boreholes to provide clean water to communities near Frontier

## Planning

Key plans for 2025 and beyond include the:

- Ongoing implementation of our long-term regional development programme in Kazakhstan
- Implementation of multiple existing and new CSI programmes as part of our Cahier des Charges and 0.3% mandatory contributions in the DRC



## MATERIAL ISSUES

### Related UN SDGs



The long-term sustainability of our business depends on the trust of our customers, partners, host governments, communities and society at large. We uphold this trust by maintaining high standards of integrity, transparency, and accountability across all aspects of our governance system.

### Management approach

Our compliance policies are implemented through our risk-based Group Compliance management system, which covers anti-bribery and corruption, anti-money laundering (AML), sanctions, human rights and data protection.

Our Compliance Team ensures internal adherence to ERG compliance policies and procedures, completion of the annual Compliance Programme, and provides beyond-compliance assurance.

Key areas of governance focus include:

- Ensuring full compliance with evolving international sanctions to reduce business risk
- The delivery of assurance that our products have been responsibly sourced, processed and traded
- The maintenance of transparent and constructive dialogue with our host governments, as well as our support for national development priorities

In line with our new Strategy, we will also drive the transformation of our management model to maintain flexibility, build trust and strengthen key partnerships.

### Tax contributions<sup>1</sup>

In 2024, we paid US\$983 million in taxes and duties (2023: US\$1,257 million), including US\$659 million in Kazakhstan, US\$272 million in Africa and US\$8 million in Brazil, among others.<sup>2</sup>

# GOVERNANCE

<sup>1</sup> In line with our Group Tax Policy, we comply with all local tax laws and follow the OECD Transfer Pricing Guidelines. We submit EITI reports in Kazakhstan, the DRC and Zambia as required, and file related EU and OECD disclosures with Luxembourg authorities.

<sup>2</sup> The decrease compared to the prior year mainly reflects lower corporate income tax payments, driven by reduced sales volumes, as well as the impact of lower ferroalloy prices and lower cobalt and copper prices. In addition, the 2023 figure was inflated by tax payments made in 2023 for the 2022 tax year in Kazakhstan.

## ETHICS AND COMPLIANCE, INCLUDING HUMAN RIGHTS

### AGILE CULTURAL COMPLIANCE

Our Group-wide Agile Cultural Compliance Model helps us adapt to changes in our business and the external environment, while ensuring we meet our legal and ethical obligations. Systematic regulatory monitoring and advanced risk management practices informed ongoing adjustments to our management activities during the year, as well as our risk-based training programmes. Active sanctions compliance was a particular area of focus in 2024, due to the imposition of new sanctions against Russia.

**>3,500**

Number of employees trained on ERG's Code of Conduct. The Code covers topics such as combating bribery and corruption, money laundering and terrorist financing, health, safety and environment, compliance with applicable sanctions and competition laws, transparency in interactions with counterparties, protection of personal data and confidential information, as well as issues of integrity, fair employment practices and respect for human rights, including the prohibition of the use of forced and child labour, prevention of any form of discrimination and harassment. For details on our compliance training, please refer to the table opposite.

## RESPONSIBLE VALUE CHAINS

### COBALT AND COPPER ASSURANCE

We published our fourth Clean Cobalt and Copper Performance Report in July 2024, which sets out our implementation of the Framework at Metalkol in the DRC. The framework ensures our conformance with the OECD Due Diligence Guidance<sup>1</sup>, supports improved living conditions for local people and helps preserve the environment. For more information, see: *CCC Framework, Metalkol RTR Clean Cobalt & Copper Performance Report 2024* and *PwC Assurance Report*.

In addition, Metalkol successfully underwent its third Responsible Minerals Initiative Responsible Minerals Assurance Process assessment, and commenced the Copper Mark assurance process (*Letter of Commitment*).

### RESPONSIBLE ALUMINIUM

Although all ore in our aluminium supply chain comes from our own operations, we apply our Responsible Aluminium Framework to provide the highest levels of assurance to our value chain partners (see *Responsible Aluminium Framework*). This demonstrates our responsible management of human rights, business ethics, health and safety and environmental issues, in line with international standards.<sup>2</sup> It also demonstrates our compliance with the London Metal Exchange's (LME) Responsible Sourcing requirements.<sup>3</sup>

These efforts are further supported by our ongoing participation in the LME Passport initiative, which facilitates the automatic transmission of quality assurance and compliance data for each batch of metal produced to the LME cloud system.

## Compliance training (number of employees trained)<sup>4</sup>

|                                                | Senior management <sup>5</sup> | Management | Employees | Total 2024   | Total 2023 |
|------------------------------------------------|--------------------------------|------------|-----------|--------------|------------|
| Code of Conduct <sup>6</sup>                   | 62                             | 201        | 3,334     | <b>3,597</b> | 12,623     |
| Counterparty Due Diligence (CPDD) <sup>7</sup> | 43                             | 264        | 850       | <b>1,157</b> | 8,161      |
| Data protection                                | 76                             | 2,919      | 5,618     | <b>8,613</b> | 14,869     |
| Conflict of interest                           | 44                             | 3,080      | 5,716     | <b>8,840</b> | 11,544     |
| Anti-bribery and corruption                    | 34                             | 109        | 568       | <b>711</b>   | 6,532      |
| Human rights                                   | 74                             | 1,653      | 4,758     | <b>6,485</b> | 16,526     |

<sup>1</sup> OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas.

<sup>2</sup> Including the OECD Due Diligence Guidance.

<sup>3</sup> This underpins the LME 'approved brand' status of aluminium produced at KAS.

<sup>4</sup> The year-on-year decrease is due to the broader training coverage achieved in 2023. In line with our Training and Awareness Programme, compliance trainings are delivered in structured waves and are not required annually for the same groups of employees.

<sup>5</sup> C-Level, Chief Engineer, Chief Accountant, etc.

<sup>6</sup> Excluding the annual General Site Induction training provided to employees in Africa.

<sup>7</sup> For Kazakhstan, CPDD training includes training on sanctions compliance.

## GOVERNMENT RELATIONS AND POLICY

### SUPPORTING THE GOVERNMENT OF KAZAKHSTAN'S SOCIO-ECONOMIC OBJECTIVES

The Government of Kazakhstan owns a 40% share in ERG. We support (where it aligns with our business objectives) its national strategy, which is focused on fair and inclusive growth, modernisation, improved living standards and social harmony. In particular, we continue to support:

- Improved education, with an emphasis on preparing students for future labour markets
- Enhanced living conditions across our mining towns and operating regions
- Economic diversification, as well as innovation, digitalisation and entrepreneurship

- Improved technological and environmental standards for the mining sector, as well as employee health and safety

We also support the Government's environmental ambitions, including carbon neutrality by 2060.

Key areas of engagement in 2024 also included:

- The generation of domestic value through our direct, indirect and induced economic impacts
- Evolving state regulation of mine safety

### CONSTRUCTIVE AND TRANSPARENT COOPERATION WITH THE GOVERNMENT OF THE DRC

The Government of the DRC holds direct interests in our DRC operations<sup>1</sup> via state mining company Gécamines and the Ministry of State Portfolio. We remain committed to working openly and constructively with the Government to continue forging positive relations, achieve mutually beneficial outcomes and support long-term local and national development.

Key areas of engagement in 2024 included:

- Our potential plans for the future development of selected mining licences we have in the country
- Maximisation of our local economic impact, including through our new Local Procurement Programme<sup>2</sup>

- The enhancement of energy security for miners, including through collaborative peer investment. In addition, we have also signed an MoU with the National Electrification Utility to cooperate on the upgrade of critical infrastructure, with the first project scheduled for commissioning in September 2025

- Dialogue with the government to address concerns related to illegal mining activities

- Formalisation of artisanal mining with Entreprise Générale du Cobalt (EGC), a subsidiary of Gécamines

Other discussions were focused on the lifting (in May 2024) of the mining regulator's suspension of operations at Boss Mining following nearby flooding, disputed claims regarding our local procurement practices, and the Government's temporary suspension of all cobalt exports from the DRC in early 2025.

### Planning

Key plans for 2025 and beyond include:

- The advancement of our compliance approach (focused on KPIs, IT capabilities and assurance analytics)
- Implementation of the Copper Mark Assurance Process at Metalkol
- Ongoing government engagement in Kazakhstan and the DRC regarding shared value generation, and in Brazil regarding the future of BAMIN

<sup>1</sup> Including Metalkol and Frontier, as well as Boss Mining and Swanmines.

<sup>2</sup> Established in 2024.

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## Forward-looking statements

This Sustainable Development Review contains certain forward-looking statements. Forward-looking statements are not based on historical facts and are inherently prospective in nature. Forward-looking statements may be identified by the use of terminology including, but not limited to, 'intend', 'aim', 'project', 'anticipate', 'estimate', 'plan', 'believes', 'expect', 'may', 'should', 'will', 'potential', 'possible', 'investigate', 'explore', or similar terms.

Forward-looking statements involve known and unknown risks, uncertainties and other variables that may cause actual performance, events and outcomes to vary significantly from any future performance, events or outcomes expressly or implicitly anticipated by such forward-looking statements. Such variables may include, but are not limited to, actual operational performance, market conditions, exchange rate fluctuations, operational disruption, macroeconomic dynamics, political uncertainty, government regulation and other related factors. As such, undue reliance should not be placed on such forward-looking statements.

Forward-looking statements contained in this review are only made with respect to the situation at the date of publishing. ERG will not be under any obligation and will not undertake to update or revise any forward-looking statements contained in this report after this date.

