



Eurasian Resources Group S.à r.l.  
Sustainable Development Review 2015

# Expertise. Responsibility. Legacy.







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## About this review

The metals and mining businesses in Kazakhstan, as well as those operating internationally, are faced with a choice – either to continue working as before despite the harsh market conditions which would most likely force them to leave the industry in 10 to 15 years' time, or to change and learn how to create new value for their stakeholders, including employees, clients and other partners, local communities in the countries of operational presence and society as a whole. The ability to constantly develop, evolve and progress is the cornerstone of sustainable development.

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The activities implemented by Eurasian Resources Group (ERG) involve interests of a wide group of stakeholders.

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For more information visit  
[www.eurasianresources.lu](http://www.eurasianresources.lu) and  
[www.erg.kz](http://www.erg.kz)

## 2 About this review

The current Sustainable Development Review summarises all our principal focus areas, where the Group can not only raise the overall business efficiency but also make a positive contribution to local communities and the environment. Within each of these areas ERG has been improving quality of lives and providing support for cultural heritage in the regions where it operates.

While the sustainability initiatives are being planned, we are also increasing the transparency of our business and monitoring the results.

We are committed to supporting the communities across the Group and we encourage all our team members to feel that they share our corporate values in order to contribute to our joint success.



### Sustainable development focus areas



Look for this symbol in this Review to read more about our sustainable development focus areas.



Key stakeholder groups	Reasons for inclusion on the list	Forms of cooperation
<ul style="list-style-type: none"><li>– Governments and other state authorities in the regions where the Group operates</li><li>– Executive and legislative authorities on the local level</li><li>– Regulators</li></ul>	<p>The Group recognises its responsibility for the realisation of state programmes in the Republic of Kazakhstan and for the socio-economic development in all countries where the Group operates.</p> <p>The Group complies with the ethical principles of doing business and demonstrates a responsible approach to mining activities.</p>	<ul style="list-style-type: none"><li>– Information disclosure and reporting.</li><li>– Participation in the expert and working groups and the advisory and consulting bodies.</li><li>– Realisation of joint social projects via the private-public partnerships – signing of the annual memorandums with the akimats (regions) where the Group operates in the Republic of Kazakhstan.</li><li>– Permits and licenses.</li><li>– Monitoring of compliance with the standards and requirements of the regulatory bodies.</li><li>– Cooperation around the sustainability initiatives of the international organisations, global think tanks and key economic forums.</li></ul>
<ul style="list-style-type: none"><li>– Investors and lenders</li><li>– Suppliers and contractors</li><li>– Agents and customers</li><li>– Industry associations</li><li>– Professional and expert communities</li><li>– Mass media</li></ul>	<p>The Group gives a high priority to creating conditions for mutually beneficial and efficient cooperation, raising industry standards and improving investment climate in all the countries where the Group operates.</p>	<ul style="list-style-type: none"><li>– Information disclosure via the official webpage and press releases, statements and interviews around major news and announcements.</li><li>– Participating in country-level and international forums, conferences, industry fairs and other events.</li><li>– Taking part as experts in industry associations and realisation of joint projects for the whole industry.</li></ul>
<ul style="list-style-type: none"><li>– Local communities</li></ul>	<p>The Group recognises its responsibility for the sustainable development of the regions where the Group operates and for the social and environmental approach to realising the investment projects.</p>	<ul style="list-style-type: none"><li>– Providing support to non-political public events organised by the local communities.</li><li>– Memorandums of cooperation under the regional initiatives (e.g. Competence Center for Environmental Technology in Pavlodar region, Kazakhstan).</li><li>– Social investments in the regions where the Group operates.</li></ul>
<ul style="list-style-type: none"><li>– ERG employees</li><li>– Trade unions</li></ul>	<p>The Group creates favourable and safe working conditions and provides equal opportunities of professional and personal development for its employees.</p>	<ul style="list-style-type: none"><li>– Providing regular updates to employees and engaging them to sustainable development and value creation for employees via the internal communication system, including corporate media, intranet portal, corporate celebrations and events.</li></ul>

### Stakeholder relationships

The activities implemented by ERG involve interests of a wide group of stakeholders. Therefore the Group aims to ensure an open, direct and mutually respectful dialogue with the key stakeholder groups. This dialogue is based on transparency, good faith and responsibility. Through a cooperation with its partners, the Group contributes to the development of a favourable environment to implement its strategic aims. It takes part in the industry business associations, promotes the compliance and sustainability norms together with its suppliers, contractors and other industry peers, international organisations and NGOs, develops sector-level strategies with the professional and expert communities and contributes to social and economic development of the regions where the Group operates.

Interactions with the country-level and regional authorities include the following activities:

- Mitigation of Group companies' risks due to legislative changes and ensuring a stable operating environment. Specifically, in Kazakhstan a new Code on subsoil and subsoil use and a new Tax and Customs Code have been recently adopted, and in Brazil the regulatory changes in the mining sector continue to be under evaluation.
- Discussions of draft legislation with the responsible government authorities (for example, the Ministry for Investments and Development and the Ministry of National Economy of the Republic of Kazakhstan, the Ministry of Mines in the DRC), business organisations and industry associations (for example, the Chamber of Commerce and the Chamber of Mines in the DRC).
- Taking part in the public-private partnerships to develop infrastructure (for example, the FIOL<sup>1</sup> in Brazil).
- Accepting state support in line with the legislative conditions in the countries where the Group operates, such as the temporary relief of VAT for imports, applicable to all mining operations in the DRC.

1. East-West Integration Railway project.

# Our major achievements in the sustainability area

For ERG 2015 was a period of large-scale business transformation. Launched in Kazakhstan as the centralised process in 2014, business transformation was then extended to the Group.

Business transformation aims to create more uniformed business processes, to increase the efficiency of information and report delivery and to provide higher transparency via the implementation of the SAP management system.

The 'Legacy' strategic development programme started the Group business transformation. This programme was implemented in 2014-2015 and included the following priorities:

- Consistent long-term strategic planning and integrated investment policy.
- Ongoing improvement of processes and production technologies.
- Centralised management of all operational processes – from procurement to sales.
- Systematic work with government bodies and substantial contribution to social stability.
- Efficiency and transparency.

The higher transparency and agility across the operations were achieved via the implementation of the new SAP ERP (Enterprise Resource Planning) management system as part of the 'Arrow' programme.



**For over ten years ERG has been signing annual memoranda on the key economic, infrastructural, social and cultural projects in the Aktobe, Karaganda, Kostanaj and Pavlodar regions.**

The realisation of the 'Arrow' programme and SAP ERP implementation at 'Eurasian Energy Corporation' JSC, ERG Sales AG and TNC 'Kazchrome' JSC have provided managers and employees with the opportunity to monitor the key performance indicators in real time using the information dashboards on computers and mobile devices.

## Introduction of process-based management

Process-based management aims at providing higher efficiency, transparency, predictability and operational flexibility. The Group has developed and implemented the new business architecture that structurally describes all the Group's integrated business processes, procedures, roles, risks and corporate controls. This architecture has a practical value for a wide circle of stakeholders and stands for managerial control, transparency and Group compliance to legal and other requirements. The Group's business process management policy was approved and a process office was established for methodological, technical and organisational support.

## Training and personnel development as part of business transformation

Managers and specialists working for 'Sokolov-Sarbai Mining and Production Association' JSC were trained to use the modern Group management system based on ERP as part of business transformation in 2015. Across the Group more than 5,500 employees have already taken part of this training. As part of TOP-150 and Future-500 personnel development programmes, the Group has started to develop a set of KPIs. Unlocking human potential and increasing personal efficiency were marked as the key areas for improvement.

## Profit from waste

The programme aims at decreasing negative impact on the environment via transformation of industrial waste into a business process to generate profits.

In May 2015, the marketing department of ERG Sales AG conducted a market survey that confirmed the demand for industrial waste produced by the various Group operations. Consequently, the 'Profit from waste' programme was launched as part of business transformation and will now be gradually implemented across the Group. The waste was properly surveyed and after ecological assessments the Group obtained permission to sell carbonic dust, spent lining and sludge.

Specifically, ERG uses sludge from the production at 'Aluminium of Kazakhstan' JSC for road construction in the Pavlodar region. This sludge was determined to be not dangerous to people but has previously accumulated for a number of years. An agreement was signed in 2015 for the utilisation of 80,000 tonnes of sludge.

## Socio-economic development and community relations

ERG has a long-established record of making a meaningful difference through its community social investment (CSI) programmes. In 2015, we invested more than US\$ 45 million to support health, housing and education initiatives in the regions where the Group operates.

In Kazakhstan, more than half of the CSI programmes are implemented through public-private partnerships – via the memorandums of understanding on socio-economic development signed annually between the Group and the regions of operational presence.

## Our people

As at 31 December 2015, ERG directly employed 69,650 people. As a truly multinational Group, we highly appreciate such diversity and foster a culture of mutual respect and understanding, with equal opportunities for all. The related personnel decisions, such as hiring, training and career promotion are taken based on this principle.

The economic crisis has brought 'business-as-usual' to an end, and this can be observed across the entire metals and mining sector. Flexibility and ambition for continuous improvement are key to success and are at the core of our social responsibility. The Group continues to strengthen the awareness of its employees on necessary ethical norms and values.

We encourage our team members to share their attitude to work and to communicate our corporate values in order to contribute to our joint success.

## Health and Safety

We deeply regret the ten fatalities that occurred during the year (2014: 17). Nine of these fatalities occurred among our employees (2014: 13) and one to a contractor (2014: 4). We want to convey our heartfelt sympathy to the families, friends and colleagues of all those who lost their lives. In strict accordance with the existing system of H&S, we have subjected the causes of each incident to rigorous scrutiny and remediation and implemented plans to enhance control measures.



**We encourage our team members to share their attitude to work and to communicate our corporate values in order to contribute to our joint success.**

In 2015, there were 95 work-related lost time injuries (LTIs) recorded (2014: 97), and the lost time injury frequency rate (LTIFR) was 0.74 (2014: 0.70)<sup>1</sup>. These numbers include all reported employee fatality cases.

ERG remains committed to paying strong attention to the reduction of professional hazards. We are developing a safety culture in all divisions of the Group, while everyone should contribute to reaching a zero injury rate. We are determined to improve the labour conditions and decrease work-related injuries and professional illness in the workplace.

The strategic priorities of our health and industrial safety policy were reviewed and revisited in accordance with the 'Legacy' programme. We plan to use our experience to further develop and raise the efficiency of each element of personnel safety management, industrial processes and equipment, and also to integrate them into the business of the Group.

The implementation of the renewed H&S strategy includes four key priorities:

- Stage-by-stage improvement of the integrated corporate H&S management system.
- Ensuring commitment and competence in H&S issues across the Group.
- Raising efficiency of various measures based on proper risk management.
- Effective interaction with suppliers and contractors.



## Environment protection and energy efficiency

Achieving compliance of the ecological management system with the international standard ISO 14001, reducing the impact on the environment and improving the current practice of greenhouse gas (GHG) emissions disclosure remain a focus of the management of the Group.

We continued to implement measures to enhance energy saving and to increase energy efficiency at various operations and entities of the Group.

1. The 2015 LTI number (previously reported as 97) has been updated to reflect the exclusion of two LTIs with contractors; this has correspondingly impacted the 2015 LTIFR number (previously reported as 0.75).

# 6 Key sustainable development events

2015

## January

Signing of the memorandum of understanding (MoU) with China Nonferrous Metal Industry's Foreign Engineering and Construction Co., Ltd. (NFC), to implement three business development projects in Kazakhstan: construction of a new module of the aluminium smelter, development of a hot briquetted iron (HBI) plant, and reconstruction of two power units at the Aksu power plant.



Putting into operation a new inter-shift stay house with a capacity of 60 places in the shift village 'Zentralny' of 'Schubarkol Komir' JSC.

## February

Putting into operation a modern electrofilter system at the thermal power plant of 'Aluminium of Kazakhstan' JSC.

## March

Signing MoUs on joint cooperation and implementation of social projects in 2015 with the akimats of Aktobe, Kostanaj, Karaganda and Pavlodar.

Selling shares in Northam Platinum.



## April

Acting as a long-term partner of the fifth Kazakhstan International Occupational Safety and Health Conference (KIOSH) 2015.

Selling Serov Ferroalloys Plant and its affiliated companies.

## June

Signing MoUs with Sberbank of Russia and VTB Bank on the refinancing of the Group liabilities until 2021 and beyond.







## July–August

65th anniversary of Krasnyi octyabr bauxite mining plant, 30th anniversary of 'Shubarkol Komir' JSC, 30th anniversary of mine 'Vostochnyi', 20th anniversary of TNC 'Kazchrome' JSC.



## October

Signing two agreements with VTB Bank to obtain pre-export financing for 'Kazakhstan Aluminium Smelter' JSC and 'Aluminium of Kazakhstan' JSC.

## July

Becoming an Industry Partner of the World Economic Forum.



Establishing the modern training centre at 'Aluminium of Kazakhstan' JSC.

## September

Signing the financing agreement with the China Development Bank for three investment projects in Kazakhstan (part of 'One Belt, One Road' initiative).

## November

Signing memorandums on local procurement with seven regions in Kazakhstan and the goods manufacturers in the country.

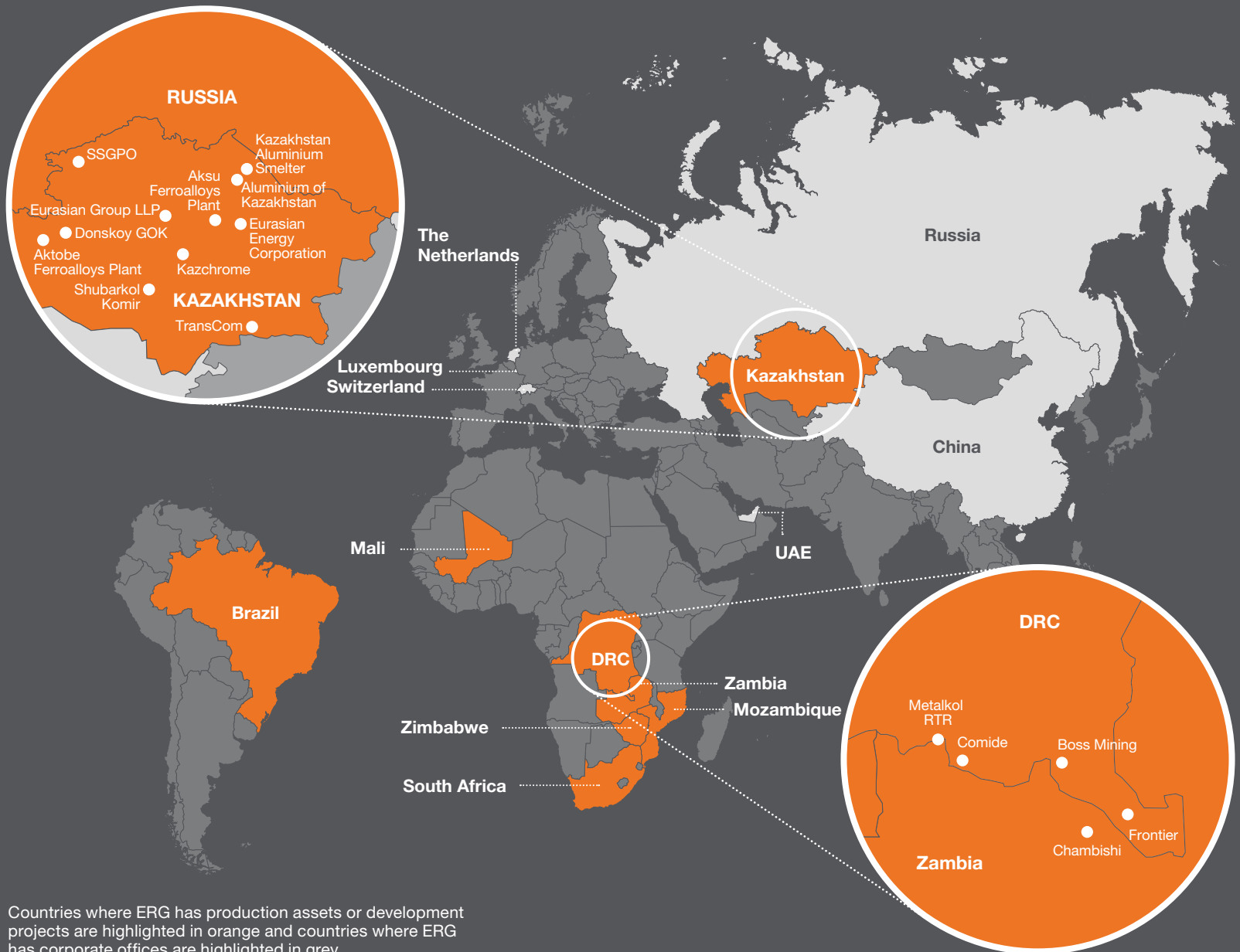
Producing million tonnes of ferroalloys at the Aksu Ferroalloys Plant.

Affiliating the logistics company 'Transsistema' LLP to 'TransCom' LLP.



# Review of production activities

ERG is a leading diversified natural resources producer that operates across six product segments supported by a central sales and marketing department. Five of our product segments are principally based in Kazakhstan while the other non-ferrous product segment is located in Africa.



# Key operational figures

Sales volumes by product in 2015



**1.6<sub>mt</sub>**

Ferroalloys products



**213<sub>kt</sub>**

Aluminium



**1.0<sub>mt</sub>**

Alumina



**112.5<sub>kt</sub>**

Copper



**10.8<sub>mt</sub>**

Iron ore products



**5.1<sub>kt</sub>**

Cobalt



**14.5<sub>mt</sub>**

Coal



**14.7<sub>GWh</sub>**

Electricity production



# How we performed in 2015

**Total headcount**  
Employees

**69,650**

(2014: 75,122)

**Fatalities, work-related**  
Employees

**9**

(2014: 13)

**Fatalities, non-work related**  
Employees

**0**

(2014: 0)

**Fatalities, work-related**  
Contractors

**1**

(2014: 4)

**Lost time injuries (including fatalities),  
work-related<sup>1</sup>**  
Employees

**95**

(2014: 97)

**Lost time injury frequency rate  
(including fatalities)<sup>2</sup>**  
Employees

**0.74**

(2014: 0.70)

**Community social investment**  
US\$ million

**45.3**

(2014: 47)

**Energy consumed (production only)**  
Terajoules

**269,298**

(2014: 303,101)

**Greenhouse gas emissions**  
Million tonnes CO<sub>2</sub> eq.

**24.9**

(2014: 28.0)

**Water withdrawn**  
Million m<sup>3</sup>

**2,068**

(2014: 2,196)

The Group continued to maintain control over sustainability key performance indicators, as well as to integrate non-financial data into risk assessment and investment planning.

## **Lost time injury frequency rate (LTIFR)**

A slight increase in LTIFR calculated by lost days to million worked hours (only employees) is due to the lower total number of working hours across the Group.

In 2015, a total number of 10 fatalities have occurred (2014: 17), which includes nine employees (2014: 3) and one contractor (2014: 4).

## **Community social investment (CSI)**

Capitalising on its experience in Kazakhstan where the Group has for many years been supporting local communities, ERG is now putting higher emphasis on the CSI activities worldwide. In Africa and Brazil, ERG has implemented a number of initiatives, including contributions to the social sphere, building roads and schools, sponsorship and charity.

In 2015, the Group invested US\$ 45.3 million in communities in the regions where it operates (2014: US\$ 47 million<sup>3</sup>), of which US\$ 33.3 million was in Kazakhstan (2014: US\$ 38 million), US\$ 11.7 million in Africa (2014: US\$ 7.3 million) and US\$ 0.3 million in Brazil (2014: US\$ 0.7 million).

1. The 2015 LTI number (previously reported as 97) has been updated to reflect the exclusion of two LTIs with contractors.
2. This has correspondingly impacted the 2015 LTIFR number (previously reported as 0.75).
3. In 2014 this figure also included US\$ 1 million CSI in Russia.

# Business transformation

## Project Spring – Adopting a process-based approach to management

Project Spring laid the foundation of a new result-oriented business 'architecture' focused on managerial flexibility. Given the challenging environment in the markets for metal feedstock, the key issue was how to organise operations most effectively. In the autumn of 2014, ERG launched a major initiative to improve business processes with the aim of establishing an efficient and transparent management system.

All divisions prepared business process descriptions focused on achieving improvement of Group results and took into account managerial roles performed, operational risks and required control procedures. As a result of Project Spring, regulations have been drafted, issues involving various functions have been examined, communication matrices have been developed in order to improve cooperation between the holding company and Kazakhstani enterprises, and RACI (responsibility assignment) matrices have been prepared. Business process owners have been appointed to ensure clear responsibility for the results of each process and to increase transparency.

Project Spring was then rolled out throughout the Group as Project April – and has achieved systematisation of the operations of all of the Group's divisions, and more effective planning.

### Project Spring has achieved closer integration of the Group's divisions and improved horizontal cooperation by moving from a functional to a process-based approach.

The measures adopted as part of project have led to improvements not only in the processes, but also in process documentation, preventing duplication of information and clearly defining roles and powers. In addition, the project has enhanced employee engagement and helped to gain the trust of various enterprises and business units.

The process-based approach has enabled us to introduce horizontal management, remove barriers between different functional units and the Group's regions, and focus the efforts of process owners on achieving the organisation's key targets. The main outcome of these measures was the establishment of a new business 'architecture' for ERG involving the integration of business processes, procedures, roles, risks and controls.

The Group continues to work towards creating a transparent management structure with clear allocation of responsibility for process execution and decision-making in non-standard situations. The Group plans to improve the business architecture that it has created to make it a single and consistent source of knowledge about the Group's operations for all stakeholders. It is also going to embed all required controls to preventing risks within each of its business processes.



## Project Arrow – Introducing standardised SAP-based business processes

Project Arrow has made it possible to work towards improving business management and cost control optimisation through a single SAP ERP system. It has also provided access to detailed and transparent information on the operations of various divisions and functions of the enterprises at all management levels.

The project has covered 12 process areas: production, repairs, logistics, procurement, sales, quality management, personnel management, accounting, fixed assets and reporting, tax accounting, management accounting, and treasury and investments. As part of Project Arrow, business processes have been described; over 500 regulations were finally signed.

In 2015, Project Arrow was being implemented at 'SSGPO' JSC, one of the Group's largest enterprises. Prior to this, the project was realised at 'Eurasian Energy Corporation' JSC, in the office of ERG Sales AG in Zurich (Switzerland) and at TNC 'Kazchrome' JSC.

After the implementation phase of the Project is completed, each enterprise takes regular measures to support processes and the system's performance and ensure their continuous improvement.

**Project Arrow has impacted all core operations of enterprises by transforming the management culture, style and methods, including employee training and professional development.**



In 2016, following the implementation of Project Arrow, the SAP ERP system will be launched at 'SSGPO' JSC, and the implementation of the SAP ERP Personnel Management module will be completed at the management company in Kazakhstan. The module will form the basis for process standardisation in personnel administration, the management of key roles and the succession pool as part of TOP-150 and Future-500 employee development programmes.

Going forward, the Group's efforts will be focused on implementing Project Arrow at 'Aluminium of Kazakhstan' JSC, 'Kazakhstan Aluminium Smelter' JSC and 'Shubarkol Komir' JSC. Subsequently, ERG will be able to control over 80% of its earnings and operations via a single system, improve planning, control and decision-making processes and optimise the use of equipment and inventories.

We also intend to set up a shared services centre to provide the Group with information technology (IT) and SAP services; this will enable a significant improvement in the quality of IT and SAP services provided to the enterprises.





# Our approach

## Expertise. Responsibility. Legacy.

### Corporate governance

The Board of Managers of ERG, comprised of three founder shareholders and two representatives of the Government of the Republic of Kazakhstan, provides direction to the Group for all aspects of corporate governance and compliance. The Board is committed to ensuring that the Group represents the highest ethical and business standards and complies with local and international laws relevant to its business wherever it operates.

### Corporate regulations and procedures

The Group's corporate regulations and procedures for compliance are defined in its corporate policies, including Anti-corruption, Anti-money laundering, Fraud, Conflicts of Interests, Data Protection, compliance with all applicable laws to prevent anti-competitive behaviour and with international sanctions, and others. In 2015, ERG has reviewed and adopted its corporate policies, reflecting international developments in corporate governance, compliance principles and sustainability norms, as well as the best ethical business practices.

The Group is opposed to bribery and corruption in any form. ERG also requires its third parties – business partners, contractors and subcontractors – to fully comply with applicable laws and regulations.

### Next steps

In 2016, ERG will continue further development of its risk-oriented compliance system to ensure strict compliance with the relevant legislation and ethical business practices of the Group.

### Code of Conduct

The Group's Code of Conduct sets out the values of ERG and the highest ethical and compliance standards that we have established for implementation by our employees. We also require and expect that our business partners will be following these standards. All our stakeholders, when working with us, can be assured that we are implementing these.

We are using the following measures:

- Internal policies and procedures set out by the Board of Managers, including the Code of Conduct of ERG and compliance policies.
- Further development of the Group's compliance system in line with the best international practices and legislation.
- Regular assessment and due management of compliance risks.

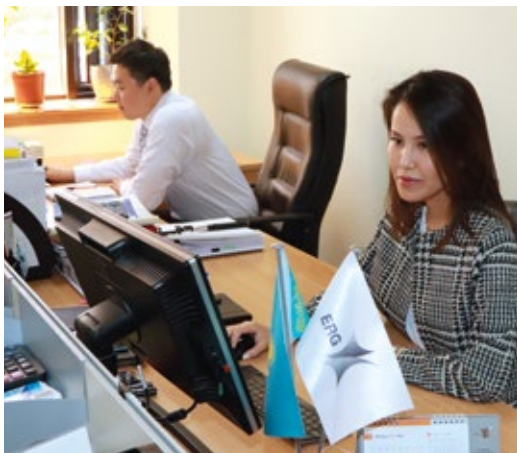
- Regular training of ERG employees in order to ensure that they fully comply with the ethical business principles of the Group and to ensure confident compliance risk management in everyday business operations.
- Informing business partners and entities acting on behalf of the Group of ERG's ethical and business standards and the obligations to comply with them.
- Adding regulations on anticorruption into agreements signed by the Group companies.
- Functioning of the Whistleblowing Hotline to report failure to comply with obligations and internal investigation procedures.
- Counterparty due diligence checks.
- Regular reporting to the management of the Group with regard to the development of the compliance system and compliance risk management.
- Professional learning and development of compliance personnel.
- Regular verifications of the compliance system by Internal audit.

Summary of the ERG Standards of Business Conduct		
	Topic	General Principle
1	Overarching Principle	Directors, employees and agents must act in the best interest if the Company, with integrity, honesty and must exercise good judgment in performing their duties.
2	Compliance with Laws, Rules and Regulations	Employees must comply with all applicable laws, the Code as well as company policies and procedures.
3	Fair Employment Practices	Treatment of employees must comply with all applicable employment laws.
4	Health, Safety and Environment	ERG is committed to providing a safe work environment and to avoid as far as is reasonably practicable adverse impact to the environment and the communities in which it does business.
5	Private Data Protection	ERG protects personal and private data of employees and third parties.
6	Confidential Information, Protection	Employees must protect ERG's confidential information. IT systems must be used for ERG's business purposes only.
7	Gifts and Entertainment	Employees must not provide or accept unlawful or inappropriate gifts or entertainment.
8	Conflicts of Interests	Employees must not engage in activities which conflict or compete with the interests of ERG.
9	Accounting and Reporting	Transactions must be properly authorised and recorded and records must be properly maintained.
10	Anti-Bribery and Corruption	ERG is opposed to bribery and corruption in whatever form.
11	Competition	ERG must conduct its business in accordance with applicable competition laws.
12	International Trade, Export Controls, Financial and	ERG must comply with applicable international trade laws and laws on export control.

**Expertise. Responsibility. Legacy.** continued**Risk management**

The Group adheres itself to an ongoing, consistent and systematic approach to risk management across all regions and operations.

Risk management is an integral part of ERG's corporate governance system. The Group applies a robust, formalised risk management process designed to identify, assess, manage and mitigate all the material risks that can lead the Group to failure to comply with its objectives. The scope of the risk management process covers all major functional areas, including H&S and environmental risks, strategic, operational, financial and compliance risks. The risk management process is linked to business planning and efficiency control, enabling ERG to prioritise and allocate required resources to ensure effective risk management.



Our occupational safety risk strategy is based on addressing key safety risks through the enforcement of corporate standards and planning of target investments. We have determined the key production safety risks for each business division. These risks include working at height, working on moving equipment, equipment isolation, transportation safety and others. The specific targets have been implemented and are monitored to manage the key safety risks.

**Sustainable development and accountability**

We continue to invest not only in our own businesses, but also to fuel infrastructure growth and improve the health, wealth and well-being of the communities where we operate. We have an active social investment programme spanning healthcare, education and professional training for specialists, with a view of their further employment by the Group.

As a priority, ERG is progressing with its efforts to be engaged in and promote transparency initiatives for the whole industry, including working with international organisations, think tanks and civil society.

Transparency and accountability are also enhanced by the ongoing provision of ERG's 24/7, independently operated Whistleblowing Hotline, which enables employees and other stakeholders to report facts or suspicions of misconduct and other concerns, also anonymously.

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**As a priority, the Group is progressing with its efforts to be engaged in and promote transparency initiatives for the whole industry, including working with international organisations, think tanks and civil society.**

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**Stakeholder relationships**

ERG is actively engaged in relationships with the wide range of stakeholders, including national and local governments and mining industry associations. In 2015, the Group has upgraded the profile of its membership at the World Economic Forum, a major development for ERG, conscious that it has an important role to play in securing resource stewardship and sustainability, particularly in Africa and Eurasia.



### Business improvement programmes

In 2015, ERG progressed well with the enforcement of the business improvement programmes focusing on implementation of best practice in each of the product segments. Our strategy of continuous improvement has delivered significant achievements in unit cost control, production efficiency and profitability.

The 'Legacy' strategic development programme provides centralisation and optimisation of the key business processes, enhancing the effectiveness of the long-term planning system. Our successful projects in this area include:

- A transition to a flexible multi-scenario modelling of project financing under different time horizons. This planning system helps us maximise profits. It encompasses all our operations in Kazakhstan, including hundreds of industrial units and investment projects.
- A centralisation of the procurement and sales function via the development of the 'Data Cube' information system, enabling a more responsive decision-making process, from warehousing to annual procurement plans.

- An introduction of a dispatching system for mining machinery and a system for monitoring fuel use at 'SSGPO' JSC.
- An increase of briquettes production at Donskoy Ore Mining and Processing Plant utilising undersized concentrate, which created a viable solution for lump material deficits.
- A development of additional reserves and increase in the internal dump capacity at 'SSGPO' JSC open-pit mine.
- Use of coal substitute via a special coke reduction at 'Aluminium of Kazakhstan' JSC.

In 2015, the Group utilised its historic experience in cost management to develop the 'Minus 10%' programme. Its aim is to enhance the efficiency of production processes, increase liquidity, reduce costs and strengthen the application of lean management principles at our plants. The programme is expected to generate annual savings of US\$ 150 million to US\$ 200 million for the Group.



The programme has three key dimensions – a reduction of production costs, an increase in profits through higher production volumes or intercompany turnover and an increase in productivity to enable the Group's continuous sustainable development.

### Next steps

- Introduction of cost reduction and efficiency increase measures in order to achieve a sustainable effect in line with the Group's targets.
- Ensuring employee engagement across all levels and conducting lean management trainings throughout the organisation.
- Development of a complex business system for continuous improvement.

The Group has a research and development centre which is in charge of scientific and technological developments to improve existing mining and metallurgical processes as well as discover innovative technologies and approaches to be implemented at our entities. In 2015, the Group invested around US\$ 4.7 million (2014: US\$ 3.9 million) into the scientific and research activity.





# Acting responsibly

## Working under the 'New Silk Road' initiative

From developing Kazakhstan's first aluminium smelter that works for high-tech industries such as aviation to reprocessing major cobalt tailings in the DRC, ERG strives to use new, more efficient and more sustainable technologies to help drive the industrialisation and infrastructural growth in Central Asia and Africa.

As a leading global natural resources producer, ERG recognises the important role it can play in promoting sustainable development and securing the world's resources for future generations. The 'New Silk Road' initiative is a development strategy framework proposed by China in 2013, which focuses on enhancing connectivity and cooperation between China and countries of Eurasia. The initiative is aimed at fuelling economic growth in these two regions. ERG, with its wide experience in dealing with the government authorities, industry leaders and financial institutions, is well positioned to developing large-scale investment projects with China and to relocating the excess production capacities to Eurasia and Africa. These joint investment projects with China are creating additional employment opportunities for people in the regions where the Group operates.

**The 'New Silk Road' initiative is a development strategy framework proposed by China in 2013, which focuses on enhancing connectivity and cooperation between China and the countries of Eurasia.**

ERG has built a strong commercial presence in China, through its financial and industry partnerships. ERG supplies ferroalloys, copper, cobalt and iron ore to the country and cooperates with China on technology sharing. Mr Alexander Machkevitch, Chairman of the Board of Managers of ERG, regularly participates in high-level business and governmental meetings on cooperation with China.

In Kazakhstan, ERG is already working on the implementation of several joint projects with its Chinese partners. The first project involves reconstruction of two electric power units at Aksu Power Plant. Additional power generation will help meet the needs of one of the largest greenfield projects in Kazakhstan: the construction of the new line of the aluminium smelter. ERG is Kazakhstan's only producer of aluminium. This project will boost the Group's aluminium capacity by 50%, or by 140,000 tonnes.

Working with the Chinese partners, the Group's projects are helping to reduce the mining industry's environmental footprint by implementing more sustainable and efficient mining and processing technologies. One example is the Kolwezi tailings project in the DRC. This project, resumed in 2015, will provide employment to potentially thousands of local unskilled workers who will be trained and provided with mining skills by ERG in its technical training facilities. As an important part of the Kolwezi tailings project, groundwater, which has been polluted with heavy metals, will be decontaminated and recovered, improving water quality and the H&S of local communities.



Historical copper-cobalt mining and processing activities conducted in the mid-20th century in the DRC created an old mining wasteland that is a source of ongoing pollution to the local water resources and a hazard to the local communities.

Starting in early 2015, ERG commenced a project to introduce new processes and technology that will see vast amounts of ground and water polluted with heavy metals decontaminated and recovered to improve the livelihood of thousands of local citizens.

The comprehensive low-cost hydro-metallurgical facility, known as the Metalkol Roan Tailings Reclamation (Metalkol RTR) project, is designed to unlock copper and cobalt trapped in the tailings which were produced from previous mining operations. This activity contributes significantly to the restoration of the local natural environment.

The Metalkol RTR project commercial mining contains two areas of old tailings, Kingamyambo and Musonoi/Kasobantu.

Once completed the Metalkol facility will generate significant economic activity through the export of beneficiated metals including foreign exchange, local employment, taxes and community development from the reprocessing of old mining waste, whilst simultaneously rehabilitating the polluted former sites.

## Development of market-leading mining and processing technologies helps restore the environment in the DRC.

In order to manage almost all aspects of the project's environmental footprint, including stakeholder engagement and resettlement, ERG manages an Environment and Social Management Plan (ESMP) which provides the frameworks and tools necessary for site management.

Further, the Metalkol RTR project involves local Congolese environmental experts (CEMIC) in accordance with the requirements of the DRC Mining Code to monitor and report compliance with the environmental standards in the country. The Metalkol RTR project submits annual environmental reports to the Ministry of Mines.

The Metalkol RTR project focuses on reprocessing existing tailings. By its very nature this endeavour reduces environmental impacts because it minimises or removes a potential source of pollution – the tailings themselves.

In the case of Kingamyambo and Musonoi locations specifically, a reduction in ambient dust concentration and an improvement in surface water quality can be expected in the long term as a result of:

- The removal of the two large tailings deposits.
- The ongoing rehabilitation of these areas formerly covered in tailings.
- The construction of a new and improved tailings storage facility.



## 18 **Acting responsibly** continued

# Forging a close partnership with the World Economic Forum

ERG has developed a strong partnership with the World Economic Forum. Since joining the Forum as a Foundation Member in 2014, ERG has rapidly advanced by the end of 2015 to achieve the status of Strategic Partner Associate.

As a leading international mining company with operations in a number of countries where the corporate governance practice should be improved, ERG is aware of the important role it can play by establishing high ethical standards and leading business practices across its operations. The Group is striving to contribute to the Forum's goals and principles, particularly from its experience achieving longstanding public-private collaborations, both within the mining and metals industry and across the Group's value chains with other industries and stakeholders.

Benedikt Sobotka, the CEO of ERG, is involved in promoting the Forum's initiatives on sustainable mining, social inclusion and the 4th Industrial Revolution and in leading discussions on the mining industry's vision, the key issues for the sector and the transformations that can impact the future of global mining and its sustainable development. ERG's executive team members provide their expertise to several of the Forum's industry initiatives, including two major Global Challenges – 'Environment and Natural Resources Security' and 'Economic Growth and Social Inclusion'.

**Our involvement in the World Economic Forum gives us an opportunity to work together with other industry leaders and decision makers from the public and private sectors.**

According to the ERG management team, "We are delighted to cooperate with the Forum team and we are very grateful for getting their support. While the world continues to face unprecedented challenges, it is especially important that our relationship with the World Economic Forum is expanding and we are looking forward to supporting the global community with ideas and expertise in the search for solutions to these challenges and ways to create new opportunities."

Geographically, ERG focuses on Eurasia, where one of its key activities is the China-Eurasia 'New Silk Road' development initiative, and Africa, another key region of Group's presence. The Group also contributes to developing the strategy and direction of the Annual Meeting of New Champions in China and other regional summits and community sessions and participates in interactive workshops with government and local business aimed at identifying opportunities for closer regional cooperation in Eurasia.







ACTING RESPONSIBLY

FOCUS AREA  
**Socio-economic development**

COUNTRY  
**The Democratic Republic of the Congo**

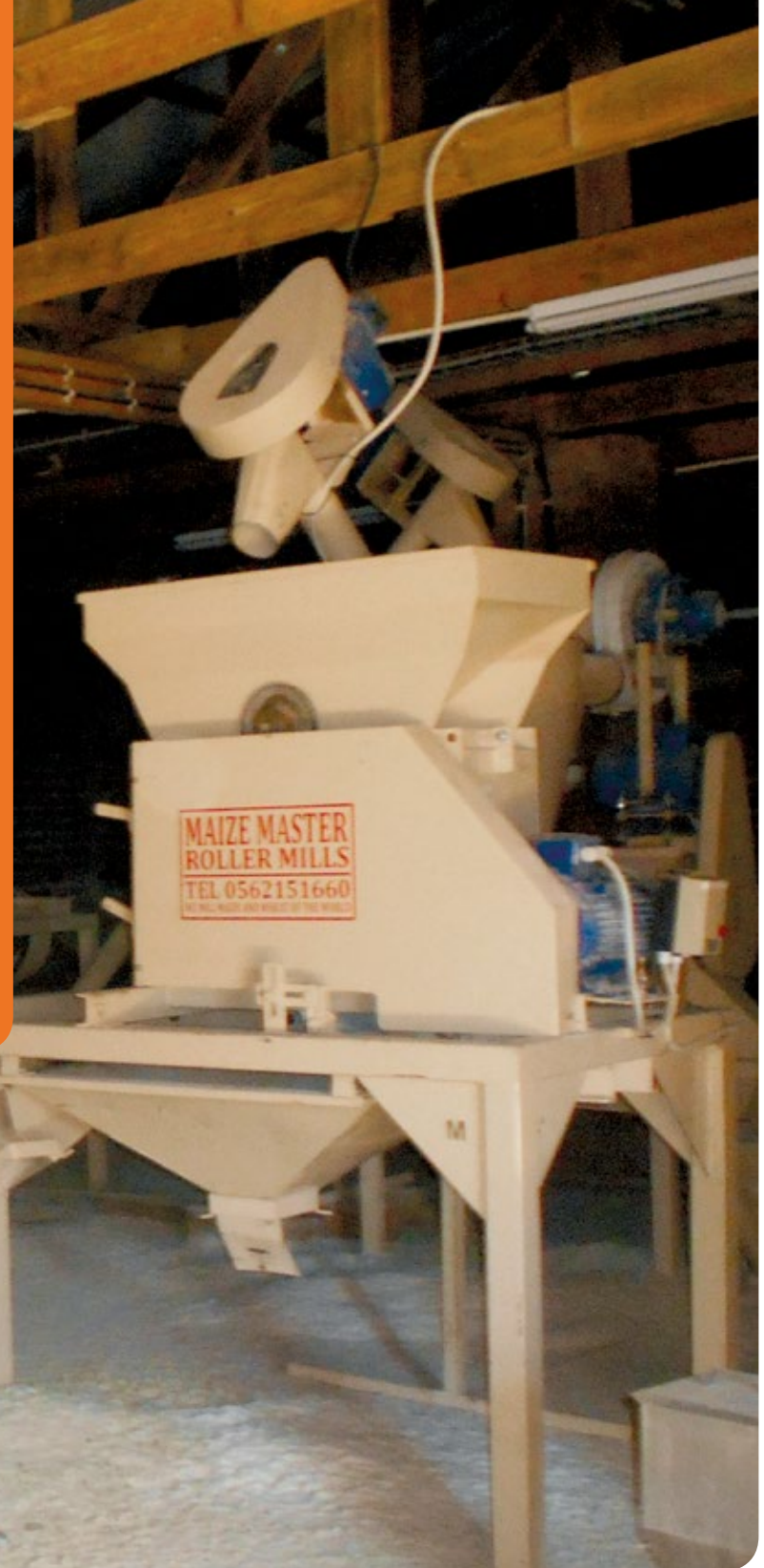
# Helping to improve food security in the Democratic Republic of the Congo

**ERG helps local farmers grow maize, satisfy their demand and market the surplus.**

ERG has worked with the Sakania community in the DRC to establish UNAPS, an agro-pastoral association. Between 2013 and 2015, UNAPS was granted around US\$ 450,000 worth of seeds and fertiliser for the cultivation of 250 acres of maize. By the end of 2015 approximately 270 tonnes of maize have been harvested, boosting the self-sufficiency in the community's staple food provision and enabling families to generate income by selling surplus maize.

Given the effects of the drought in several southern African regions, the benefit of the project has been even more substantial.

ERG also, on behalf of the community, acquired a maize mill, with the capacity to process 5 tonnes of maize per day.



## 20 **Acting responsibly** continued

# Implementing major steps in countering climate change

After the Government of the Republic of Kazakhstan ratified the Kyoto Protocol on the United Nations Framework Convention on Climate Change (UN FCCC) in 2009 and launched Kazakhstan's Green Economy Initiative, ERG held a number of consultations with various stakeholders in the Republic of Kazakhstan on the implementation of a greenhouse gas (GHG) emissions trading scheme (ETS). The Group was one of the first businesses in Kazakhstan to implement the management of GHG emissions and participated in a pilot stage of the ETS via GHG trading.

Addressing the GHG emissions challenge to establish its first domestic GHG ETS in 2013, a mechanism not only preferable for businesses but also a marketable one, was a major step by the Government of the Republic of Kazakhstan. As of the end of 2015, this scheme included more than 140 companies of the mining, chemical, energy and oil and gas sectors. After the successful implementation of the trading scheme the Government went on to developing it further.

In 2015, ERG took part in the working groups to prepare amendments on carbon dioxide (CO<sub>2</sub>) emissions to the Environmental Code of the Republic of Kazakhstan and provided expertise on behalf of business in the discussions of obligations taken by Kazakhstan on an international level.

We conduct GHG emissions forecasts on a regular basis to develop a robust GHG compliance strategy. In 2015, all of our sites in Kazakhstan fulfilled requirements to receive free allocation

units based on the National Allocation Plan for 2014-2015 and two sites have received additional free allowances. None of the sites exceeded the allocated amount.

We continued to assess the GHG footprint of our African operations to anticipate potential risks and opportunities related to carbon management. Our operations in Africa do not have regulatory GHG compliance obligations but we recognise the potential for development of GHG emissions regulatory mechanisms for African operations similar to those applied in the Republic of South Africa.

In 2016 the Group plans to continue enhancing the monitoring and the due management of GHG from production in all countries where it operates. In Kazakhstan the Group will proceed to actively participate in improving legislation and efficiency of reducing the GHG emissions, including the GHG ETS.







ACTING RESPONSIBLY

FOCUS AREA  
**Environmental stewardship**

COUNTRY  
**The Republic of Kazakhstan**

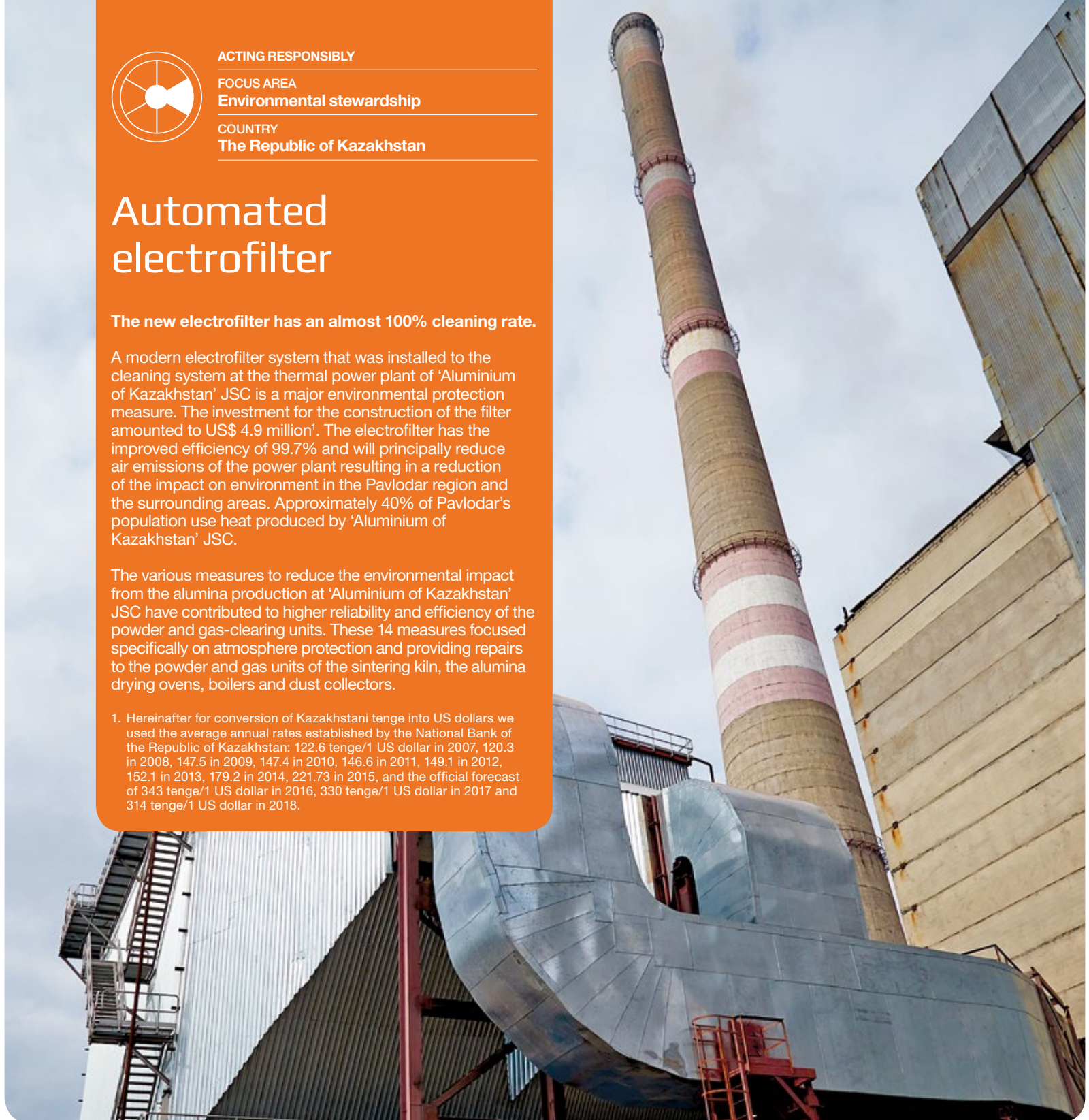
# Automated electrofilter

**The new electrofilter has an almost 100% cleaning rate.**

A modern electrofilter system that was installed to the cleaning system at the thermal power plant of 'Aluminium of Kazakhstan' JSC is a major environmental protection measure. The investment for the construction of the filter amounted to US\$ 4.9 million<sup>1</sup>. The electrofilter has the improved efficiency of 99.7% and will principally reduce air emissions of the power plant resulting in a reduction of the impact on environment in the Pavlodar region and the surrounding areas. Approximately 40% of Pavlodar's population use heat produced by 'Aluminium of Kazakhstan' JSC.

The various measures to reduce the environmental impact from the alumina production at 'Aluminium of Kazakhstan' JSC have contributed to higher reliability and efficiency of the powder and gas-clearing units. These 14 measures focused specifically on atmosphere protection and providing repairs to the powder and gas units of the sintering kiln, the alumina drying ovens, boilers and dust collectors.

1. Hereinafter for conversion of Kazakhstani tenge into US dollars we used the average annual rates established by the National Bank of the Republic of Kazakhstan: 122.6 tenge/1 US dollar in 2007, 120.3 in 2008, 147.5 in 2009, 147.4 in 2010, 146.6 in 2011, 149.1 in 2012, 152.1 in 2013, 179.2 in 2014, 221.73 in 2015, and the official forecast of 343 tenge/1 US dollar in 2016, 330 tenge/1 US dollar in 2017 and 314 tenge/1 US dollar in 2018.





# Focusing on what matters

## Socio-economic development and community relations

Socio-economic development of the regions where the Group operates is at the core of ERG corporate responsibility. In 2015, the Group has invested US\$ 45.3 million in communities in the regions where it operates (2014: US\$ 47 million<sup>1</sup>), of which US\$ 33.3 million was in Kazakhstan (2014: US\$ 38 million), US\$ 11.7 million in Africa (2014: US\$ 7.3 million) and US\$ 0.3 million in Brazil (2014: US\$ 0.7 million).



### Aktobe region, Kazakhstan

The key projects in the Aktobe region included road repairs, refurbishment and modernisation of housing and utilities in the regional centre, annual sponsorship of the College of Mines in Khromtau, support of international and national level sporting events and financial support to a regional orphanage, located in the city of Alga.

### Karaganda region, Kazakhstan

In the Karaganda region the Group funded the refurbishment of the park adjacent to Karaganda's 'Eternal flame' memorial; supported cultural activities as part of celebrations of the 70th anniversary of the end of World War II; provided grants to regional theatre and orchestral artists, and scholarships to five leading sportsmen.

ERG has a strong legacy of providing support to the most vulnerable people such as the elderly, the handicapped, children with special needs and orphans. ERG allocated funds to purchase specially modified vehicles for transporting the handicapped, including motorised wheelchairs, and Montessori equipment for the nurseries.

### Reconstruction of housing and infrastructure after a flooding in Karaganda region

The Group provided emergency funding and assistance to the inhabitants of Kazakhstan's Karaganda region when it suffered severe flooding as a result of melting mountain snow. The Group has allocated US\$ 676,500 to 35 flooded villages in financial aid for the reconstruction of housing and infrastructure.



### Kostanaj region, Kazakhstan

In the Kostanaj region, key projects included the construction of a residential house in the city of Rudnyj, undertaking works to address the water pressure level from Sokolovskaya hydraulic power station to the Vasievsky evaporator and repairing the Oktyabrsky Recreation Centre.

In Rudnyj, the Group purchased rehabilitation equipment for children suffering from ICP (infantile cerebral paralysis), a Medical Support Vehicle for the Rudnyj emergency station and necessary educational equipment for the city's industry-specific colleges and institutes.

Nationwide, ERG actively supports the promotion of physical training and sport. In 2015, the Group provided significant funds to sponsor local sports clubs, in particular to developing the sports of hockey, football, volleyball and judo.

### Pavlodar region, Kazakhstan

Key projects in the Pavlodar region included the construction of an indoor hockey field in Aksu; purchase of tramcars for the citizens of Pavlodar; refurbishment of residential areas in Pavlodar and Aksu, and providing capital repairs to the sports hall in the Creative Children's Centre and to the Kamal Makpaleev commemorative building of Pavlodar city school No.4.

1. In 2014 this figure also included US\$ 1 million CSI in Russia.

## Africa

In Africa, ERG's support to its host communities is reflected in wide-ranging initiatives such as investing in road construction, improvement and maintenance; building and maintaining schools and medical facilities, and fostering the local trade and entrepreneurship. In 2015, as part of a special programme launched by the Group in the Democratic Republic of the Congo (DRC), a water collector and a road were built in Sakania region of the country. The road will significantly improve the transport connections in the area and contribute to solving the issue of consistent water supply. Further, to promote agriculture in the DRC, ERG purchased seeds, fertiliser and a maize mill to support local farmers cultivating maize.




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**Flexibility and ambition for continuous improvement are key to success and at the core of our social policy.**

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## Brazil

In Brazil, the Group has driven forward the realisation of its major iron ore greenfield in the state of Bahia and as part of its commitment to sustainable development in the area has funded and maintained monitoring of the water fauna near the Porto Sul. Also, it has supported renovation of the local emergency medical institution at one of the oldest and most important hospitals in the city of Ilheus and supported catering for employees, patients and visitors to the clinic.



## 24 Focusing on what matters continued

### Socio-economic development and community relations continued

#### ERG actively supports and invests into healthcare projects and facilities in the regions where the Group operates

These activities include direct funding or partnering in the building of new hospitals and healthcare facilities, in the renovation and maintenance of existing facilities and in purchasing new equipment for hospitals. In 2015, a nursery for children with special needs was established in Pavlodar, one of the main cities of the Group's operational presence. At this new nursery, 64 children are receiving the specialist care and support to help them deal with challenges including speech disorders, learning difficulties and physical handicaps. Additionally, 53 new job opportunities have been created for teachers and doctors, who were employed at the new nursery.

A famous British oncologist Dr Anthony Julian Michalski visited Kazakhstan to share his knowledge and expertise in the field of cancer diagnosis and treatment with Kazakhstan paediatricians. This visit was a part of the internship programme for Kazakhstani doctors organised by ERG together with one of the world's leading children's hospitals – Great Ormond Street Hospital (GOSH) in London. The five-year project to develop the healthcare system in Kazakhstan was successfully completed with a master class for paediatricians.



#### Community social investments (CSI) of ERG in Kazakhstan in 2015

ERG Kazakhstan	CSI, US\$ '000
<b>Pavlodar region</b>	15,207
<b>Aktobe region</b>	3,812
<b>Kostanaj region</b>	3,851
<b>Karaganda region</b>	2,310
<b>TOTAL</b>	<b>25,180</b>

#### The Group companies' independent directors touring its plants in Kazakhstan Independent directors shared their experience and expertise while visiting ERG's plants.

In the course of 2015, ten independent directors, working as members of the Boards at ERG's companies in Kazakhstan, visited the Group's industrial sites in different regions of the country. The independent directors also took part in the operational meeting to discuss the nine months results, reviewing production and sales data, capital expenditures and the profit and loss report.

#### Mr Ilmir Masgutov, Deputy Chairman of Finance for the Management Board of 'Eurasian Group' LLP, said in his report to the independent directors:

"Despite difficult economic conditions, the Group is demonstrating its stability. All our plants provide employment and opportunity for the respective regions. We are conscious we are responsible for the well-being of not only our employees, but also of their families."

#### Mr Daulet Akhmedov, a member of the Board of directors of 'SSGPO' JSC, said:

"For around 20 years I've regularly visited Rudnyj and the company based here. I remember both the highs and lows of its performance. We all understand how important this enterprise is for the town and the region. On visiting again recently, I was extremely pleased to see the wide range of cutting-edge equipment and innovative technology being used at the plant and management that is efficient and forward-looking."

#### CSI of ERG in Africa in 2015

ERG-Africa	CSI, US\$ '000
<b>The Democratic Republic of the Congo</b>	11,416
<b>Zambia</b>	238
<b>Zimbabwe</b>	19
<b>Mozambique</b>	14
<b>TOTAL</b>	<b>11,687</b>

The current market conditions are not easy but the plant has a strong basis. I am confident that it will survive the crisis, with minimal losses. As such a substantial enterprise, 'SSGPO' is certainly the plant of the future."

#### Mr Murat Murtazaev, a member of the Board of directors of 'Shubarkol Komir' JSC, said:

"We have very positive impressions of the business. Despite the crisis, production is ongoing. Group management also pays a lot of attention to further social development in the communities where we operate. For example, daily between 200 to 250 people visit the new Wellness & Fitness centre in Kachar. There is also another wonderful health and wellness centre 'Rassvet'. We are aware of our community's spiritual needs – just look at the beautiful new mosques and churches in Rudnyj and Kachar."

#### Mr Batyrkhan Bekmurzaev, a member of the Board of directors of TNC 'Kazchrome' JSC, remarked:

"From now on, when I see coal in Kazakhstan I will always think about 'Shubarkol Komir'. And I will feel extremely proud, because this is our coal."

#### Mr Kamadiar Kasenov, a member of the Board of directors, 'EEC' JSC, observed:

"'Kazchrome' is so large and so magnificent, it's amazing! As the Head of an academic department, I am so pleased to see such a strong emphasis on safety issues in the workplace."





ACTING RESPONSIBLY

FOCUS AREA  
**Raising standards**

COUNTRY  
**The Republic of Kazakhstan**

## The Aksu Ferroalloys Plant to develop the dual system of professional education

**ERG supports the Ferrous Metallurgy College of Aksu, which provides learning opportunities to children from orphanages.**

In 2008, the Aksu Ferroalloys Plant, a subsidiary of TNC 'Kazchrome' JSC, commenced its cooperation with the Ferrous Metallurgy College of Aksu that has been successfully using the dual education system. Between 2008 and 2015, the investments of the Aksu Ferroalloys Plant to support the Ferrous Metallurgy College have amounted to US\$ 1.2 million. The financing was used to update the workshop for gas welding and semi-automatic welding and purchase digitally controlled software, an interactive 3D Tekri Motion module, a Tekri Welding Simulator and electrical assembling tables. Additionally, the Aksu Ferroalloys Plant sponsors 25 scholarships to college students. Every year, students in the second and third years participate in paid internships at the plant. As of 2005, more than 2,000 people employed at the plant have graduated from the Aksu College. This is approximately 36% of the plant's total headcount.

Cooperation of the plant and the college also includes support given to children from orphanages to study and to start their adult life and career. All orphans who study at the college receive a monthly allocation of 15,000 tenge (about US\$ 68 using the average exchange rate for 2015), while their housing costs and fees to participate in professional competitions are also provided.

One of the students, Mr Sergey Milantjev, received an award at 'WorldSkills Kazakhstan', the first National competition for professional skills. Mr Milantjev also came third in the Russian competition 'WorldSkills-2015' in the 'Best Welders' category. This success he shares with and attributes to his mentors from the Aksu Ferroalloys Plant – Mr Sergey Dmitriev, Welding Equipment Operator, and Mr Anton Mashkovsky, Area Supervisor.



## ACTING RESPONSIBLY

FOCUS AREA  
**Our people**

COUNTRY  
**The Republic of Kazakhstan**

# Provision of housing to employees of the Group's companies in Kazakhstan

**A large-scale project for provision of affordable housing to the employees was launched under the Presidential Nurly Zhol Programme.**

In 2006, the Group implemented its Housing Programme. Since then, the Group has allocated approximately US\$ 92,557,699 to facilitate housing for approximately 3,000 families in the Aktobe, Karaganda, Kostanay and Pavlodar regions. Prior to the programme, 90% of the families who benefited from it had not owned a home.

The Affordable Housing Programme represents a next step of that Initiative. It is implemented with the support of local authorities and financial institutions under the Nurly Zhol ('Way to the Future') Plan announced by Nursultan Nazarbayev, President of the Republic of Kazakhstan, and is under the umbrella of the National Regional Development Programme.

In June 2015, the Group signed an agreement with JSC Kazakhstan Mortgage Company. Under this agreement, highly favourable terms were provided to the Group's employees, including a low minimum rental housing rate calculated in tenge, as well as the option for a buyout within a 20-year period by the employees.

Further, as a next step of the Affordable Housing Programme, the Group signed memorandums of understanding and cooperation with regional administrations. This would ensure the construction of approximately 90,000 sq.m. or 19 residential apartment buildings for the Group's employees before the end of 2017. ERG has allocated more than US\$ 33,530,042 for this programme and it is expected to improve the housing conditions for approximately 1,400 employees of the Group.











## ACTING RESPONSIBLY

### FOCUS AREA

**Socio-economic development**

### COUNTRY

**The Democratic Republic of the Congo**

# Road maintenance and drainage system construction projects in the DRC's Sakania area

## ERG helps to address traffic problems and create employment.

With the development of the Frontier copper mine in the DRC, commercial activities in the nearby town of Sakania have expanded. This, in turn, has led to an increase in the traffic through the whole town. To facilitate transport from Sakania via Mokambo to Kasumbalesa, the Group has rehabilitated 172km of the national road. This project

consisted of recharging, profiling and compacting laterite, and completed over the past three years with successful delivery in 2015 at a cost of approximately US\$ 0.7 million per year.

To avoid issues with dust in Sakania town, ERG, in agreement with the provincial Government, has also undertaken the rehabilitation of 10km of internal roads within Sakania city using chip seal. As rainfall in the area is high and Sakania city is built on a slope, the building of 10km of internal roads required the construction of a proper drainage system capable of draining the rainfall to a river lower down the slope. The sewerage system developed and installed is 900m long, 3m deep and 3m wide.

The construction of both the drainage collector and the 10km of road within Sakania have provided job opportunities for the people in Sakania over the past two years. The costs of the construction of the road and drainage system were US\$ 6.8 million and US\$ 0.47 million respectively. The project has significantly strengthened the local infrastructure to the benefit of the community.



# Focusing on what matters continued

## Our people

We are committed to ensuring full and fair treatment of all our people and do not tolerate any form of discrimination or unfair conduct. ERG employs people of many different nationalities and we foster a culture of mutual respect and understanding, with equal opportunities for all. All employment decisions, such as hiring, training and promotion, are based on professionalism and merit.

As at 31 December 2015, 69,650 people were directly employed by the Group.

Diversity and equality are an important part of our people management practices. We work constructively with the trade union representatives of our employees. Around 90% of the Group's employees are union members and collective bargaining agreements are in place at our entities across the Group.

We have created an environment that enables new employees to adapt as quickly as possible to the Group's organisational culture and its key functional processes. Line managers, HR specialists and mentors help new employees become acquainted with work requirements and standards. ERG offers internships for students and recent graduates from the institutions of higher and specialised secondary education. An internship may involve employment within a wide variety of business functions at different enterprises and also secondments to other countries.

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### Introduced in November 2014, the Code of Conduct of ERG sets out the standards of due behaviours across the Group, supporting our commitment to respecting the rights of our employees.

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We established a Whistleblowing Hotline that enables our employees and stakeholders to raise any concerns or issues, including those related to human rights. The Whistleblowing Hotline is operated by an independent company, it is 100% confidential and is available 24 hours a day, seven days a week via phone from any regional division of the Group as well as via email. The Group's Whistleblowing and Investigation Policy sets out the process of reporting facts or suspicions of misconduct and reporting of findings.

#### *Next steps*

ERG plans to continue its efforts to strengthen the Group's compliance function. Online training on the principles of our Code of Conduct is being planned for 2016.

#### **Training and employee development**

Training and employee development are key priorities of personnel care at ERG.

Since 2011, the Group's Top-150 and Future-500 succession planning programmes have become one of the key priorities in the area of personnel development.

At several Group companies in Kazakhstan, including TNC 'Kazchrome', EEC, 'Shubarkol Komir' and Pavlodar Machinery Plant, the Group launched a dual educational system in collaboration with higher and specialised secondary education institutions. Typically, a trainee participating in the programme would spend 70-80% of his or her time at production sites. Between 2013 and 2015, the Group invested approximately US\$ 90,000 to develop the dual educational system in Kazakhstan, including US\$ 21,000 in 2015.

## 30 **Focusing on what matters** continued

### **Our people** continued

In order to ensure a constant inflow of skilled workers, the Group operates an integrated staffing system with the following main pillars:

- Collaboration with professional education institutions.
- Internal employee development (mentoring programmes, own training centres).
- Career guidance to graduates and students from technical and vocational schools.
- On-the-job adaptation programmes offered to young specialists.

The vast majority of the Group companies in Kazakhstan are the main employers in their respective geographic regions. In view of its long-term sustainable employee development, the Group places an emphasis on organising career guidance in schools, educating young prospective employees and providing them with the right skills and motivation to pursue the most sought-after professional opportunities.



#### **'Aluminium of Kazakhstan' JSC launches the 'School of Masters' project** The Group has developed a scheme to share knowledge and skills with young employees and specialists.

Under the 'School of Masters' project, heads of divisions of 'Aluminium of Kazakhstan' JSC share practical experience with employees under 30 years old employed in production workshops of the Pavlodar aluminium smelter. The introductory lecture at the opening of the school was delivered by Mr Arman Yesenzhulov, the president of 'Aluminium of Kazakhstan' JSC.

Our collaboration with technical and vocational schools is focused on launching new specialised courses, specifically tailored to the technical requirements of the positions at the Group. In turn, the latter provides financing to secure the required equipment, maintenance and repairs of training facilities, as well as licensing for the educational institutions. The strong partnership is further extended through contractual agreements with the schools, enabling internships and securing employment for the best graduates. The students are provided with opportunities to participate in organised field trips to the production sites, as well as round-table discussions with management.

The professional practice internships are usually in the form of paid jobs linked directly to the students' areas of qualifications. To provide additional professional expertise and assistance to the educational institutions, representatives from the Group's divisions participate in administering the graduation exams at the end of the study period.

This education programme has two principal stages. During the first stage the participants attend a one-week training session to become acquainted with the main operational systems of 'Aluminium of Kazakhstan' JSC, including H&S, ecology, technological process, human resources, quality and procurement management. The second stage of the programme takes place in the Innovative University of Eurasia in Pavlodar and allows young metallurgists to obtain knowledge in production management.

At the programme's conclusion, the young specialists will prepare suggestions for improvements in specific production areas.

As of 2015, the Group has cooperated with 62 educational institutions in Kazakhstan in the regions of Pavlodar, Karaganda, Kostanay and Aktobe, as well as the city of Almaty. Between 2013 and 2015 the Group companies have employed more than 1,700 recent graduates and have offered work internships to almost 9,000 students. More than US\$ 615,000 was provided for scholarships and other education costs, including US\$ 129,000 in 2015.

#### **Next steps**

In 2016, the Group will continue to support and further develop its social partnerships with state and private educational institutions in the Republic of Kazakhstan.



### Social support of employees

The labour contracts adopted at the Group's companies in Kazakhstan regulate the general guidelines and the approach to social support for the employees. Besides the rights and benefits guaranteed by the Labour Code of the Republic of Kazakhstan, these contracts provide for funding of medical services and training programmes for employees and their children, as well as provision of subsidised sanatoria and holiday vouchers, children's holiday camps and anniversary bonuses.

In support of the national demographic policy, female employees in the Group's companies taking maternity leave receive further paid prenatal leave in addition to the one provided by the law. Separate social programmes are implemented for retired and young employees. In particular, the following social benefits were introduced: compensation for travel-to-work expenses for young employees from other towns, dormitory accommodation, a lump-sum allowance for young employees hired after army discharge, as well as obligatory employment assistance for employees called up for military service.

### Recreational and sports programmes

To promote and develop sports, the Group's companies have dedicated sports facilities and fund various sporting events and competitions on an annual basis.

The Group has more than 50 fully-owned major social infrastructure facilities: health improvement centres, preventive clinics, therapeutic mud-baths, sports centres, swimming pools, cultural and recreation centres.

### ERG and Nazarbayev University Organisation of master classes and pregraduation internships and establishment of a laboratory and a business-scientific park – the Group has a vested interest in the leading university of the Republic of Kazakhstan.

ERG provides support to the realisation of strategic objectives set by the Republic of Kazakhstan in professional education. With the objective of further developing the country's human resources and preparing high-quality professionals for the mining sector, ERG has signed a Memorandum of Cooperation with

Nazarbayev University, Kazakhstan's leading higher education institute. This Memorandum includes the establishment of a joint laboratory, provision of master classes, practical courses and internships and research projects in technology and innovation for the metals and mining sector.

Besides this initiative, cooperation in the development of the 'Astana Business Campus', the business scientific park of Nazarbayev University, is also being planned.

Annually, TNC 'Kazchrome' and EEC allocate funding for additional medical services for each employee, which is above the statutory required level. Medical services are provided in the Eurasia Medical Center branches equipped with up-to-date diagnostics and therapeutic equipment. AOK possesses a dedicated medical centre tending to employees of the 'Kazakhstan Aluminium Smelter' and Pavlodar Machinery Plant. In addition, 'Shubarkol Komir' has consistently renewed its annual agreement with a healthcare institution for the provision of services to its employees.

### Youth boards

Youth boards have been set up at entity level, with a primary focus on:

- Development of young specialists at work and ensuring their adaptation and career growth.
- Ensuring protection of socio-economic rights.
- Improvement of vocational training for young employees.
- Realisation of socially significant initiatives launched by young employees and ensuring their active involvement in the companies' life.
- Organising scientific and practice conferences, sport and cultural events.

### Programmes focused on retired employees and labour veterans provide:

- Free medical services in dedicated healthcare centres.
- Free or privileged vacation leave in sanatoria and preventive clinics.
- Annual welfare assistance or gifts for the Aged Person Day.
- Welfare assistance for medical treatment, home renovation, municipal services expenses, etc.
- Funding of the Group's Council of Veterans activities.

### Working group on social stability

This group is operating within the Kazakhstan division of ERG. Its main aim is to work together with ERG's enterprises, considering their significant regional footprint. The working group is looking for opportunities to improve the working, leisure, nutritional and health conditions of the employees. It is comprised of representatives of different divisions: human resources, legal, H&S, environmental protection, corporate communications, as well as business transformation. The Group continues to implement a single standard for social welfare services at all its enterprises, ensuring adherence to or surpassing the best practices in the mining sector.



#### ACTING RESPONSIBLY

##### FOCUS AREA

**Our people**

##### COUNTRY

**The Republic of Kazakhstan**

## ‘The country of craftsmen’

**The Group ensures its employees can demonstrate their creative potential and skills through literature, music and art.**

The Group has boosted the development of ‘The country of craftsmen’, its unique social and cultural project in Kazakhstan. The project is aimed at encouraging creativity, proactivity and personal growth and at increasing the staff engagement, for both the Group’s employees and their family members. Over the course of three years, more than 700 people from nine towns and 14 Group companies have participated in this initiative. Versatile and talented, the Group’s employees have clearly demonstrated that they are not only professionals in the workplace, but also brilliant writers, poets, painters, musicians and dancers.

In April 2015, citizens of Aksu, Rudnyj and Chromtau had the opportunity to watch and participate in a fabulous gala concert ‘Nurly zhol: Labour. Unity. Prosperity’. Side-by-side with famous show business stars, the talented employees from ERG performed in categories of performances including ‘vocalism’, ‘choreography’, ‘acting skills’ and ‘magic’. These concerts were greatly enjoyed by participants and spectators.

At the gala, children of ERG’s employees who had earlier won the national drawing contest ‘My President – My Kazakhstan’, were awarded with prizes.

The Group also organised a chess tournament between employees with the participation of the chess grandmaster, multiple winner of international tournaments, Mrs Dinara Sadvakasova.

Also the book ‘Country of craftsmen’ was published, containing the best pieces of prose and poetry written by ERG’s employees.





ACTING RESPONSIBLY

FOCUS AREA  
**Responsible governance**

COUNTRY  
**The Republic of Kazakhstan**

## Supporting children in cooperation with 'SOS Children's Villages in Kazakhstan'

As part of this cooperation, the Group organised the construction of children's playgrounds and held a special charity event on International Children's Day.

ERG continued its long-standing cooperation with the 'SOS Children's Villages in Kazakhstan' Foundation. The Group has been supporting the foundation since 2007. Within the nine-year period the total investments amounted to US\$ 121,700 including US\$ 15,800 in 2015.

Via ERG's Komek Fund the Group financed the construction of a sports facilities site on the territory of the SOS Village of Astana, in addition to the two already existing villages in Almaty and Temirtau, and the reconstruction of a number of playgrounds. The Group also held a special charity event on the occasion of International Children's Day. The central attraction for the children attending the event was an extraordinary 30m cake.







#### ACTING RESPONSIBLY

##### FOCUS AREA

**Socio-economic development**

##### COUNTRY

**The Democratic Republic of the Congo**

## Employment of local unskilled labour

**ERG provides employment for unskilled members of local communities.**

ERG's Metalkol RTR project, which was resumed in 2015, will process and re-purpose mining tailings at Kingamyambo, the result of former mining operations in the area.

The Metalkol RTR project is based in Kolwezi, a rural area of the DRC in which there is little employment. The project will create jobs and opportunities for the rural, unskilled members of the local communities to gain industrial and technical skills. It will provide alternative opportunities and safer working conditions against the backdrop of a continued risk of artisanal mining in the neighbouring area of the country.

The Group has started to organise the construction works in 2015, and this was identified as an opportunity to provide training and employ local unskilled labour. Public consultations were organised to ensure the local community could participate. A wide range of local stakeholders (including tribal chiefs, communities and local government authorities) were included and employment possibilities resulting from the plant construction phase were highlighted. As the nine villages have vastly different numbers of inhabitants, a ratio was calculated to give fair distribution of job opportunities to each village.

The consultation process was managed by the Metalkol RTR project community liaison, together with the community chiefs and the construction contractor. To ensure compliance with national employment standards and protections, the DRC employment services (ONEM) were engaged to provide employment cards to the selected candidates. By the end of 2015, 148 jobs have been created within the communities of GCM/Kzi, Kamimbi, Kashala, Kipepa, GCM/UCK, Samukonga, Samukinda, Tshala and Tshamundende. ERG plans to increase the number of job roles available as construction of the project site progresses.





ACTING RESPONSIBLY

FOCUS AREA

**Socio-economic development**

COUNTRY

**The Republic of Kazakhstan**

## Pavlodar observatory launch

**The Group has contributed to establishment of a modern observatory in Pavlodar; the observatory was renovated by specialists from Europe.**

The modern observatory was established in Pavlodar with ERG's financial support. The opening ceremony in December 2015 was attended by Mr Aidyn Aimbetov, one of the first cosmonauts of the Republic of Kazakhstan.

The observatory is equipped to teach school students astronomy and astrophysics, and will also be used for scientific research. The observatory has a large solar telescope, CORONADO TPSMT90-30 Solar Max1190, and an inner circular platform with a Meade 16 LX 600-ASF telescope for long-exposure astronomical photography, digital filming and the observation of celestial objects. The assembly works were produced by specialists from Europe. The Group has donated US\$ 406,000 to this project.





ACTING RESPONSIBLY

FOCUS AREA

**Responsible governance**

COUNTRY

**The Republic of Kazakhstan**

## Respecting local traditions

**A contest and festival for young talented performers commemorating the anniversaries of the Kazakh Khanate and the People's Assembly of the Republic of Kazakhstan.**

Kazakhstan celebrated the 20th anniversary of the People's Assembly of the Republic of Kazakhstan and the Republic's Constitution, the 550th anniversary of the Kazakh Khanate and the 70th anniversary of the end of World War II.

Commemorating these anniversaries, a special contest and a festival 'Star of the Irtysh-area' were organised by ERG for young artists and performers. The event was held in the Bayanaul nature reserve in Pavlodar region.

In total, 217 young artists from six towns in Kazakhstan competed for prizes under several categories, including vocalism, choreography, folk art and instrumental music. The festival was sponsored by ERG's Komek Foundation, the corporate charity fund, which donated US\$ 13,500 for the event, including US\$ 4,680 for prizes.

Through such events, ERG supports the Kazakh culture and traditions and fosters the talents of a new generation of the country's artists and performers.



# Focusing on what matters continued

## Health and Safety

Health and Safety (H&S) is our top priority. We continue enhancing the level of personnel competence in H&S throughout ERG and improving management of professional risks at workplace across the Group.

Since 2007, ERG has actively supported the initiative of the International Labour Organisation (ILO) to hold an event commemorating the World Day for Safety and Health at Work.

In 2015, Astana hosted the fifth Kazakhstan International Occupational Safety and Health Conference (KIOSH) that is traditionally held on the World Day for Safety and Health at Work. For its support of the conference the Group was named 'Golden partner' and its representative was awarded a letter of gratitude from the Ministry of Healthcare and Social Development of the Republic of Kazakhstan for the Group's participation and input in organising the KIOSH.

In 2015, a detailed analysis of the main reasons of all fatalities at work was conducted. An emergency action plan was introduced based on the results and aimed at prevention of fatalities in the future. This approach is one of the key elements of an efficient safety management system across ERG. Corporate safety standards for working at height were developed and approved.

The HSE Committee held three meetings in 2015. One of the decisions of the Committee was to transfer the successful practice of employee warning notice implemented by 'TNC Kazchrome' JSC. Through employee warning notices employees can inform the management about dangerous actions, conditions and events which incur potential risk.

In order to increase risk management awareness of injuries at work, a two-day workshop was held for the 23 coordinators at the Group companies in Kazakhstan. The workshop focused on methodology and corporate approach to risk identification, assessment and management. In turn, coordinators held 324 seminars for employees involved in working groups to assess the risks, develop prevention measures and measures to mitigate the danger and risks for the Group employees and contractors working across Kazakhstan. In total, 6,587 specialists were trained during the course of 2015.

We are keeping up efforts to ensure that each employee across the organisation has a conscious approach to H&S via special behavioural education programmes. ERG-Africa focused on the reporting of unsafe acts and conditions. The first phase of the roll-out of this programme took place at the copper-smelting plant Chambishi Metals PLC in Zambia and was then delivered across all of our mining operations in Africa. Two divisions of the 'Eurasian Energy Corporation' JSC embarked on a special education programme to recognise critical physiological feelings of the workers that could incur additional risk of injuries. In 2016, the positive experience will be transferred to other Kazakhstani enterprises of the Group.

During the year, 15 employees, including a major owner of operations and maintenance, took part in the online course on H&S on international programme Samtrac, registered by IOSH (Institution of Occupational Safety and Health). We are also striving to raise the potential of operation line managers, 75 of which were trained on efficient methods of work safety management.

The existing Safety Management System across ERG-Africa's core assets was transformed into an integrated SHEC management system. The system aims to address all SHEC major risks and environmental aspects of the African division of the Group.

### *Next steps*

The Group aims to raise efficiency of already implemented corporate H&S and industrial safety tools, and the monitoring of results remains a focus of our efforts. The behaviour-based audits, investigations of accidents, Committee and cascade meetings and risk evaluation are among the key measures.

We look to further develop fatal risks control standards for managing the high risk of injuries and to implement a corporate programme for continued education to H&S. We will also look to review and update the Guidelines of control procedures for H&S in the interaction with contractors.



ACTING RESPONSIBLY

FOCUS AREA  
Raising standards

COUNTRY  
The Republic of Kazakhstan

## Employee warning notices

**The practice of using employee warning notices became more wide-spread.**

In 2011, 'TNC Kazchrome' JSC was one of the first companies in the country to start putting into practice employee warning notices to actively involving workers in the prevention of injuries and accidents. An employee warning notice is a very simple way to receive feedback from employees while each of them can mark a violation of safety requirements, a dangerous action or condition at workplace or pay attention to an event which can occur or to a potential risk he or she was aware of. An employee can also write his or her suggestions for improvements. The employee warning notice is then placed in a special box located at a specific workshop and will be reviewed on a daily basis by the managers of production shops and the corrective measures will be implemented.

In 2015 at 'TNC Kazchrome' JSC, 7,886 employee warning notices were submitted, and 7,674 ideas were then put into practice.







ACTING RESPONSIBLY

FOCUS AREA  
**Health and Safety**

COUNTRY  
**Brazil**

## Supporting the emergency department at São José hospital

**ERG is partnering to sustain and enhance the local emergency medical institution in Ilheus in State of Bahia, Brazil.**

The São José, Santa Casa de Misericórdia, hospital in Ilhéus, State of Bahia, Brazil, is one of the oldest and most important hospitals in the city. Facing significant funding pressure, the hospital was considering closure of its emergency room.

In response, Bahia Mineração Limitada (BAMIN), an ERG subsidiary, participated in discussions with the hospital's Board to understand what support could be provided. Following these discussions, BAMIN committed to supporting catering for employees, patients and visitors. Since its initial launch in December 2011, BAMIN has invested US\$ 1,569,000 in the programme, including US\$ 216,000<sup>1</sup> in 2015.

Beyond the support to maintain the emergency room, BAMIN has also taken an active part in improving the efficiency of local medical care by helping to physically reorganise and renovate the emergency department of the São José hospital. In 2015 this investment exceeded US\$ 150,000.

1. Hereinafter for conversion of Brazilian real into US dollars we used the average annual rate of 3.90 real/1 US dollar in 2015.







ACTING RESPONSIBLY

FOCUS AREA  
**Health and Safety**

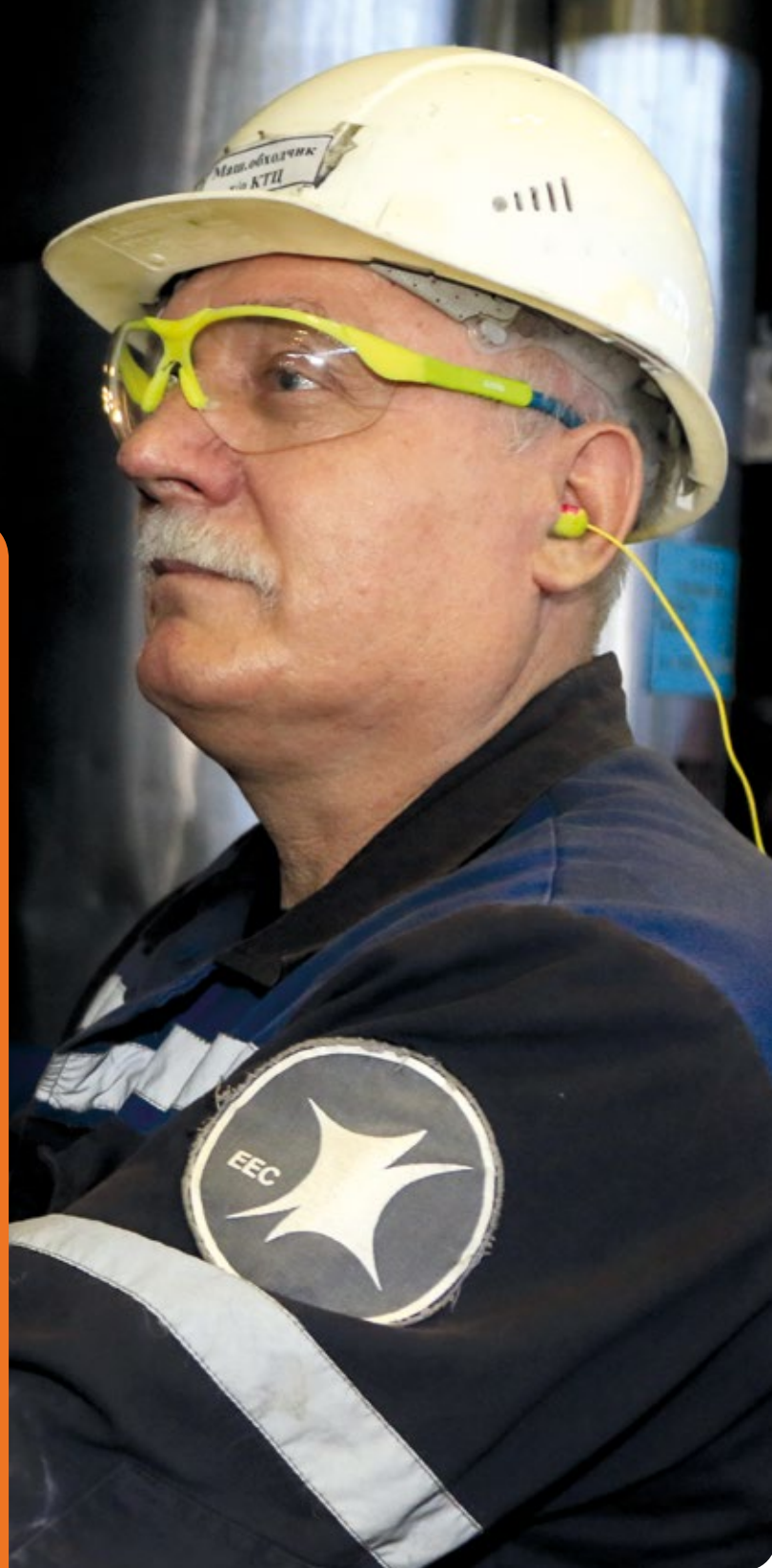
COUNTRY  
**The Republic of Kazakhstan**

## Improving the safety of personnel at EEC

Two divisions of the 'Eurasian Energy Corporation' JSC participated in a pilot project aimed to improve the safety of personnel to assist them in avoiding potentially fatal errors not only at work but also at home and while driving. The pilot project training focused on raising employee's awareness of their own behaviour and self-control and vigilance of their surroundings as important aspects of safety-consciousness.

In the first stage of the project, 14 employees received training on the course content and training techniques to become the internal trainers. They then trained more than 400 employees.

The quality of training was monitored by consultants. Comparing the results of the preliminary and post-training questionnaires, the consultants emphasised that employees are paying more attention to their health and their own behaviour, including identifying potentially dangerous behaviour, as contributory factors to personal and workplace safety. Following the training, employees are making fewer critical workplace errors and show improved concentration at work and greater vigilance and avoidance of potential sources of personal danger.



## Focusing on what matters continued

# Environment security and energy efficiency

We continue to aim for full compliance with environmental legislation and for reduction of GHG emissions by engaging in open and continuous dialogue with regulators.

### Stakeholder engagement and cooperation in environmental protection

ERG enterprises are actively involved in cooperation with various stakeholders, including government authorities, local communities, non-governmental and scientific organisations, on environmental protection and realisation of projects aimed at improving the quality of life in the regions where the Group operates.

'Aluminium of Kazakhstan' JSC developed and implemented a plan of cooperation with the government, non-governmental organisations, the media and the population of the Pavlodar region regarding protection of the environment. This has allowed for development of a constructive intersector dialogue and strongly presents the position of the Group to the public and media based on transparency of the implemented corporate environmental policy. More than 20 events were organised.

Additionally, 'Kazakhstan Aluminium Smelter' JSC, 'Aluminium of Kazakhstan' JSC, 'Eurasian Energy Corporation' JSC and Aksu Ferroalloys plant became the first companies in the country to establish, together with the akimat of the Pavlodar region and the regional association of non-governmental organisations, a Competence Centre for Ecological Technologies, the first intersector independent body. The centre aims to create strong partnership in the sector of environmental protection. The implementation of the best industrial technologies, waste processing and air and water purification are its main priorities.

### Next steps

In 2016, the Group will continue to develop and improve the practical mechanisms of cooperation between its enterprises and all the stakeholders on environmental protection.

**By the end of 2015, all operational companies of ERG in Kazakhstan have implemented ISO 50001-compliant energy management systems and five of them have successfully passed certification tests.**

### Kazakhstan's biodiversity conservation

ERG puts big emphasis on biodiversity conservation and special attention is paid to rare and endangered species of flora and fauna.

As part of the Group's environmental policy, ERG has contributed to the protection of pink flamingos – an endangered species listed in the international and Kazakhstan 'Red Data Books', and to the preservation of wetlands as the main habitat for these birds. The work was performed in the Korgalzhyn state nature reserve of the Republic of Kazakhstan. The nature reserve is included in the Ramsar List of Wetlands of International Importance and in the List of World Cultural Heritage of UNESCO. Teniz, the biggest lake in the nature reserve, is the world's most northern nesting place for pink flamingos.

### Next steps

In 2016, ERG will continue its efforts on the preservation of biodiversity. The Group will support the Korgalzhyn state nature reserve in its activities to protect pink flamingos and preserve wetlands, including the provision of materials and equipment, aerial surveys for birds and training of employees.

### Energy efficiency management

The Group energy consumption for 2015 was 269,298 TJ (2014: 303,101 TJ) of which 87.6% (2014: 85.8%) was sourced from coal. Total GHG emissions associated with direct and indirect energy consumption were 24.9 Mt of CO<sub>2</sub> equivalent (2014: 28.0 Mt). The 3.1 Mt CO<sub>2</sub> equivalent decrease is primarily due to lower electricity production in the Energy division and the sale of Serov Ferroalloy Plant and Zhairam plants GOK.

By the end of the year, all operational companies of ERG in Kazakhstan have implemented ISO 50001-compliant energy management systems and five of them have successfully passed certification tests.

Starting from 2014, all core divisions of ERG operating in Kazakhstan and registered with the State Energy Register had energy audits. The only exception is 'Aluminium of Kazakhstan' JSC, which will complete its energy audit in 2016. Energy audit findings were used as a basis for the analysis of our energy consumption management programme. Following the audits, the Group companies developed long-term energy saving/energy efficiency programmes for 2016 to 2020. The implementation of these programmes is expected to result in significant energy and fuel consumption cuts.

In 2015, the Group's Kazakhstan operations achieved a total benefit of 10,198.338 tonnes of fuel, valued at US\$ 2,253,000.

### Next steps

In 2016, it is planned to complete the energy audit of 'Aluminium of Kazakhstan' JSC, the results of which will be used to review the energy-saving and energy efficiency programme of the Group for 2016 to 2020.

Overall within this programme more than 200 measures are set to be implemented. This would allow reduced energy use by 91,500 tonnes of fuel equivalent. The total cost of the programme is US\$ 8,566,000.

Some of the planned works will be completed through contracts/agreements for energy services. These agreements are a special kind of contract aimed at cutting down the maintenance costs by raising energy efficiency and implementing energy saving technologies. The key feature of the energy service contracts is that investments are reimbursed via cost cutting from the implementation of energy saving technologies. There is no need for initial investments from Group funds or loans.





**ACTING RESPONSIBLY**

**FOCUS AREA**  
**Environmental stewardship**

**COUNTRY**  
**The Republic of Kazakhstan**

## Protection of the pink flamingo population

**ERG protects the birds listed in the 'Red Data Book'.**

In cooperation with the Biodiversity Conservation Fund of the Republic of Kazakhstan the Group has supported the Korgalzhyn state nature reserve in the organisation of the national festival 'Flamingo – 2015', including a competition for drawings and other works of art. More than 500 items were presented at this contest by people from 12 regions of Kazakhstan, with the youngest participant six years old and the oldest being 61 years old. The most active participants were school pupils from Astana, Aktau and the towns of Karaganda region. The winners in different age categories were awarded with memorable gifts and prizes.

All the works submitted to the competition were later available for viewing in the art gallery of the Astana Schoolchildren's Palace.







ACTING RESPONSIBLY

FOCUS AREA  
**Responsible governance**COUNTRY  
**Brazil**

## Deepening the understanding of the marine environment near Porto Sul

**ERG is funding research to deepen the understanding of water fauna in the area adjacent to its major port development, Porto Sul.**

Since October 2013, under the license agreement and as part of its commitment to responsible development of port infrastructure, ERG has established, funded and maintained monitoring of the water fauna in the area surrounding its major port development, Porto Sul, in the State of Bahia.

The monitoring is maintained by an interdisciplinary team which was established jointly between BAMIN, the community and representatives from the local fishing industry. The team is building and maintaining a deep integrated understanding of fishing activities and water fauna in the area surrounding the port development, collating all information in a central database for ease of analysis and tracking.

BAMIN's investment in this programme in 2015 alone amounted to US\$ 240,000.





#### ACTING RESPONSIBLY

##### FOCUS AREA

**Responsible governance**

##### COUNTRY

**The Republic of Kazakhstan**

## Using our coal for art

**ERG organised an exhibition of drawings made with Shubarkol coal in Astana, Almaty and Shymkent.**

The exhibition devoted to the 30-year anniversary of mine exploration at 'Shubarkol Komir' JSC presented the works of Mr Bakhytzhan Bukharbayev, Kazakhstan's artist and leader of the local 'Men Qazaqpyn' project. In his work Bakhytzhan uses coal mined by 'Shubarkol Komir' in Karaganda region. The Shubarkol coal has ash content of 4% and a calorific value of 5,900 kcal/kg. These unique characteristics make local coal very environmentally friendly. Today, every fourth Kazakhstani family, which uses coal for house heating, buys the Shubarkol coal.







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You can find additional information on the sustainable development of the Group on our official websites at [www.eurasianresources.lu](http://www.eurasianresources.lu) and [www.erg.kz](http://www.erg.kz)

Please use the email addresses below to send your comments and questions on this Review or with regard to ERG's efforts in sustainable development as a whole: [press@eurasianresources.lu](mailto:press@eurasianresources.lu) and [press@erg.kz](mailto:press@erg.kz)

We would like to express our thanks to the Group's employees for their support in organising an additional photo shoot at ERG's plants, and specifically to Dr Loes Schalekamp for contributing from her personal collection a set of images demonstrating the realisation of social projects at ERG-Africa.

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