KN01 - Sustainability at Emirates Global Aluminium: Safeguarding the Environment, Social Responsibility and Good Governance

Sergey Akhmetov
Executive Vice President Midstream
Emirates Global Aluminium, Abu Dhabi, United Arab Emirates
Corresponding author: sakhmetov@ega.ae

Abstract

Sustainability is one of the core values at Emirates Global Aluminium (EGA) with three pillars: safeguarding the environment, social responsibility and good governance.

To safeguard the environment, EGA is pursuing decarbonisation with the roadmap commitment to net zero greenhouse gas (GHG) emissions by 2050. Using solar power to generate electricity for the production of aluminium, CelestiAl, is an important step towards that goal. In 2021, EGA was the first smelter to produce solar aluminium commercially. Continuous reduction of energy and fresh water consumption, reduction of environment emissions and other wastes has qualified 100 % of EGA's smelting and casting operations to be certified by the ASI Performance Standard.

The top priority of social responsibility is health and safety of our people - employees and contractors. Every day, everybody has to come home safe. EGA management policies provide safe work environment through life saving rules incorporated in all safe operating procedures (SOPs), and through safety training of all employees and contractors. EGA's goal is not just zero harm, but to eliminate the risk of harm. Heat stress illnesses have been practically eliminated through dedicated special management. Another social responsibility is empowerment of women at work. In 2022 in UAE, 21% of supervisory and management roles were held by women across all our operations.

EGA's corporate governance practices have been designed to provide a foundation for value creation for all its stakeholders and to ensure sustainable and responsible long-term growth. The entire executive leadership plays and active role in EGA's sustainability agenda. Ethical practices are embedded throughout our business. EGA's Code of Ethics establishes and communicates the standards that guide our behaviour, and applies to everyone at EGA. The Code of Ethics is mandatory for all staff, including our Executive Committee and is delivered as part of EGA's induction process for new employees, and followed up with an annual adherence declaration for all staff. Responsible Sourcing Standards have been established to regulate supply chain providers to the same values as ours. Local procurement and support of local aluminium transformation companies are our priorities.

This paper describes EGA's sustainability program and achievements in detail.

Keywords: EGA's sustainability, Environment, Decarbonisation, Social responsibility, Governance.

1. Introduction

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs [1]. The goal of sustainability is to create and maintain conditions under which humans and nature can exist in productive harmony, that permit fulfilling the social, economic and other requirements of present and future generations [2].

Sustainability is one of the core values at Emirates Global Aluminium (EGA) with three pillars: safeguarding the environment, social responsibility and good governance. EGA has published annual sustainability reports since 2017, with the data going back to 2014, the year of EGA's establishment through the merger of Dubai Aluminium and Emirates Aluminium [3-8]. This paper is largely based on these reports, but some environment data goes back to early EGA history to show that some EGA sustainability goals have been pursued since the very beginning of the company which grew from a modest beginning to a mega smelter [9].

1.1 Materiality Matrix

Sustainability covers a broad range of topics. Identifying what should be reported and to what extent is an important component of the sustainability reporting process, EGA uses the Global Reporting Initiative's materiality (relevancy) principle whereby a broad range of internal and external stakeholders are consulted to help identify the most relevant sustainability topics for the company. Figure 1 gives the results in materiality matrix graph for 2021, ranking 19 sustainability topics classified by 192 internal EGA and external stakeholders. The materiality matrix identifies topics that had the most significant impacts and that also substantively influenced assessment and decision making. The scores of respondents for each of the 19 topics were averaged and plotted as a 'materiality matrix'. Internal stakeholder results were plotted against the x-axis; external stakeholder results were plotted against the y-axis.

Figure 1. Materiality matrix for EGA sustainability topics in 2021.

While all 19 topics are considered important from the perspective of EGA's long-term sustainability performance, all topics scoring above the median value on both the x and y-axis were considered the 'most material' for 2021. The topics may change the position from year to year, but the following ones are always in the top Critical quarter of internal and external scores: Business integrity and ethics, A safe and healthy workplace at EGA, Air quality and emissions, Respecting human rights, Community engagement.

1.2 Aluminium Stewardship Initiative (ASI)

The Aluminium Stewardship Initiative (ASI) is a global non-profit standards setting and certification organisation. The ASI Performance and Chain of Custody Standards set requirements for the responsible production, sourcing and stewardship of aluminium. These two standards form the basis of the ASI Certification program [10]. EGA Al Taweelah achieved the first ASI Certification in the Middle East in 2019. EGA Jebel Ali was certified in 2021, and Al Taweelah Alumina in 2023, meaning that all EGA's smelting, casting and alumina operations are now certified. In 2023, EGA's bauxite mining subsidiary, Guinea Alumina Corporation, achieved the first ASI certification in Africa. By 2030, EGA aspires to become a global sustainability leader for the aluminium industry and produce only ASI-certified products, which also requires certification of third-party bauxite and alumina suppliers.

1.3 EGA's Net Zero Greenhouse Gas (GHG) Emissions by 2050

Climate change transition to eliminate GHG emissions is part of EGA's environmental responsibility. A changing climate will impose a series of challenges for the metals and mining industry, especially given that the sector relies on substantial fixed assets and infrastructure with long lifespans that are dependent on global supply chains.

GHG emissions are expressed in terms of carbon dioxide equivalent (CO_2-eq) emissions, which comprise direct CO_2 emissions and all other GHG emissions, relative to CO_2 global warming potential (GWP). An example are perfluorocarbons (PFCs) emitted during aluminium electrolysis. Figure 2 shows CO_2-eq emissions sources at EGA. Electricity generation from natural gas is the largest source, and adding CO_2-eq from the smelters, since most electricity is used for aluminium reduction, we see that about 70 % of CO_2-eq is generated from the aluminium electrolysis process. However, it is easier to change energy generation to renewable energy than to change electrolysis process to low CO_2-eq emissions. This is why decarbonisation of electricity comes first on the road to Net Zero greenhouse gas (GHG) emissions, and smelting & casting the last (Figure 3). The decarbonisation of electricity generation and of the electrolysis process are already underway as discussed in Section 2.

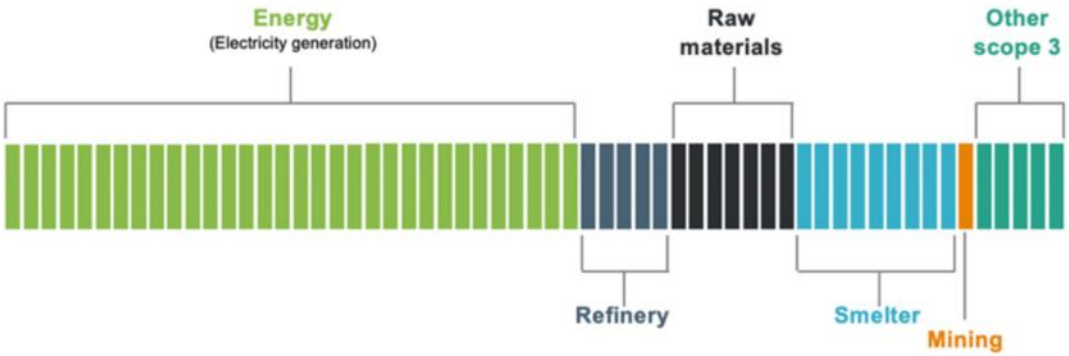
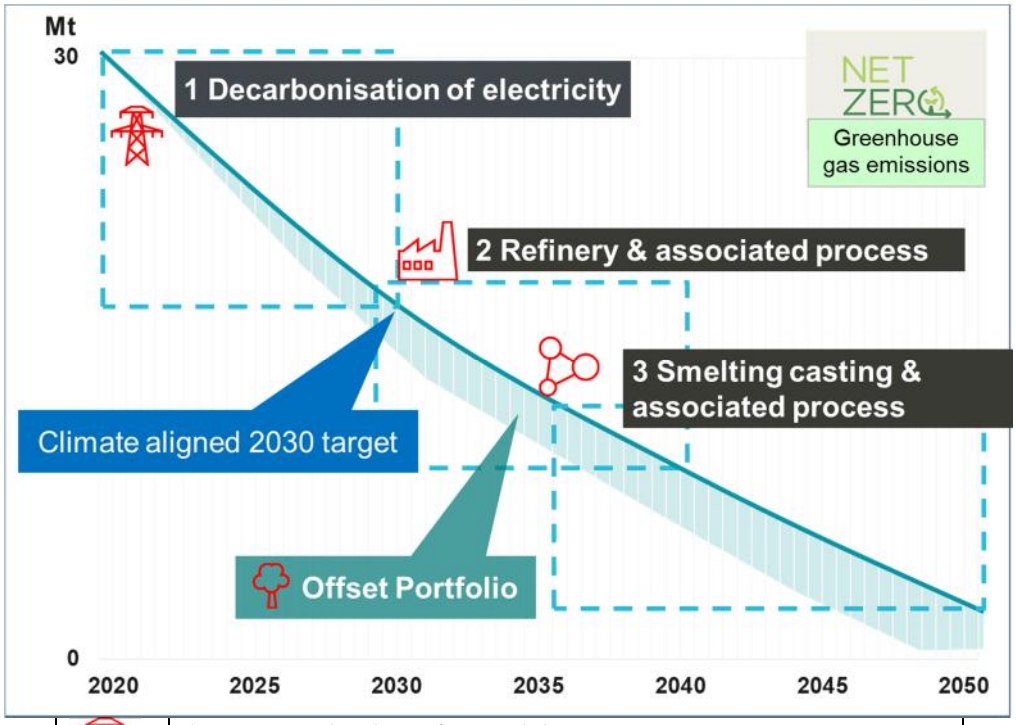


Figure 2. The carbon abatement challenge. EGA's emissions (in relative units) are from six different sources.



	1 Decarbonisation of electricity Huge early potential and enables climate aligned 2030 target
	2 Refinery Feasible technology options starting to mature in 2030s
	3 Smelting & casting The greatest challenge! Requires significant & early investigation
	Offset portfolio Must invest early to allow for maturity and avoid future cost

Figure 3. EGA decarbonisation trajectory from 30 million tonnes (Mt) CO_2-eq today to 0 in 2050.

2. First Sustainability Pillar - Safeguarding the Environment

Emirates Global Aluminium (EGA) is continuously striving to reduce the impact of its aluminium production processes on environment and make the production more sustainable [11]. EGA increased the production from 149 kt of metal in 1982 to 2.653 Mt in 2022 [8]. At the same time the harmful emissions to the environment per tonne of aluminium have decreased due to improvements in capture, cleaning and recycling. In 2022, the GHG emissions intensity from smelting and casting operations were 7.58 t CO_2-eq./t Al in EGA [8], which is 40 % lower than the global industry average of 12.67 t CO_2-eq./t Al in 2021 [12]. A summary of most important environmental achievements in EGA is given below.

To safeguard the environment, EGA is pursuing decarbonisation with the roadmap commitment to net zero greenhouse gas (GHG) emissions by 2050.

2.1 CO_2 Equivalent of Emissions

CO_2 equivalent of emissions (Figure 4) are the sum of direct CO_2 emissions and of CO_2 equivalent of perfluorocarbon (PFC) emissions, and a small contribution from methane (CH_4), NOx, and

SF_6. The main part of these emission come from electricity generation which uses mostly natural gas at EGA. In 2022 in EGA, the total CO_2 equivalent emission was 7.58 t CO_2-eq./t Al. The electrolysis process itself contributed only 1.5 t CO_2/t Al and the PFCs 0.067 t CO_2-eq./t Al. The improvement comes from replacing some generators with more efficient ones and from lower specific energy consumption (SEC) in the electrolysis, which decreased by approximately 19 % from its peak in 1985 until 2022, as shown in Figure 5. 2022 was the year with the lowest ever specific energy consumption despite highest ever metal production.

In 2022, EGA total greenhouse gas emission in smelting and casting was 40 % lower than the global industry average in 2021 (most recent data) as per [12].

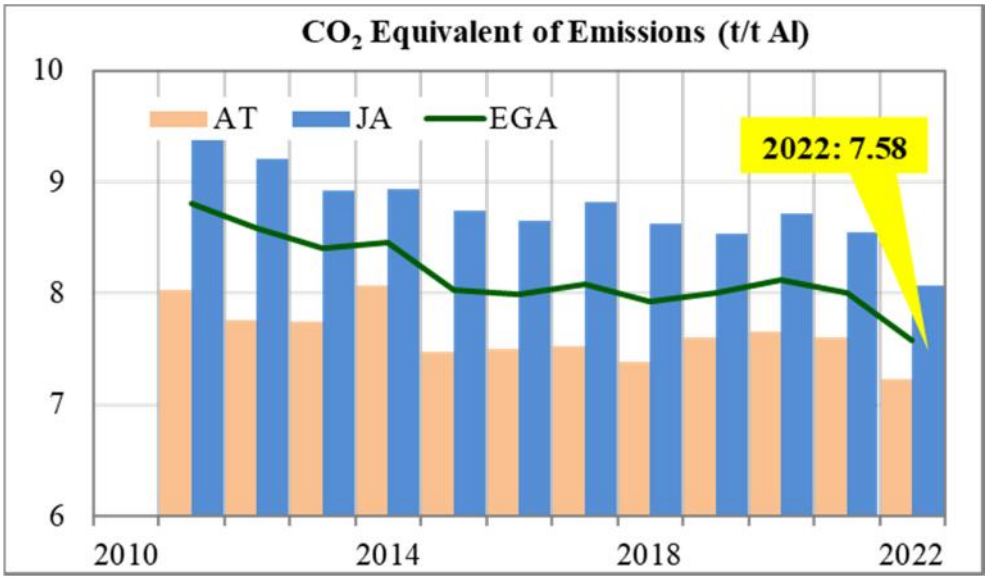


Figure 4. CO_2 equivalent of emissions (Scope 1 and 2). The data are available since 2011.

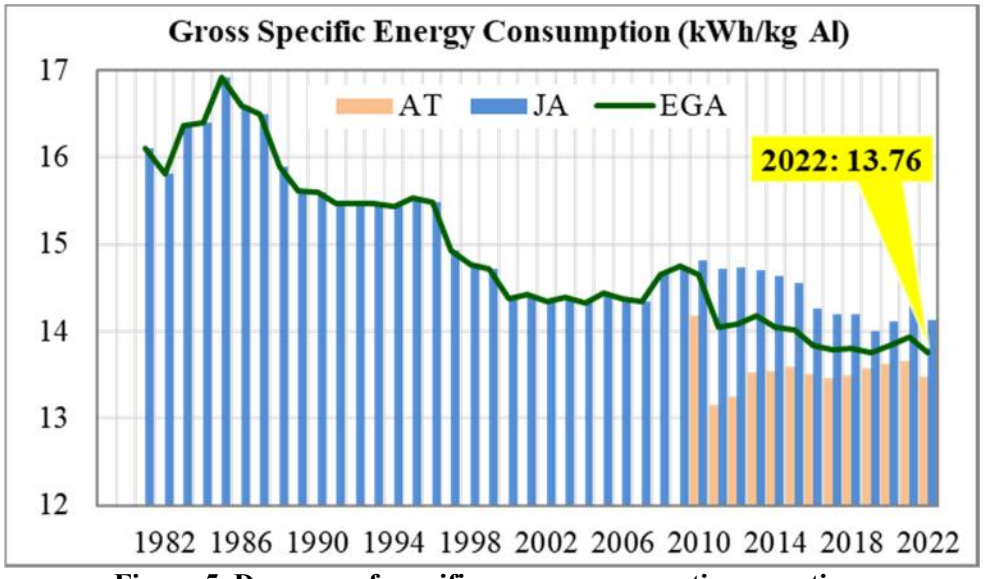


Figure 5. Decrease of specific energy consumption over time.

In order to reduce CO_2 emissions from electricity generation by natural gas, EGA has started to use solar power, supplied by the Dubai Electricity and Water Authority (DEWA), which operates the Mohammed bin Rashid Al Maktoum Solar Park (Figure 6) in the desert outside Dubai, and Emirates Water and Electricity Company in Abu Dhabi. The Mohammed bin Rashid Al Maktoum

Solar Park has a current installed capacity of 2.327 GW in May 2023, using photovoltaic solar panels, and is expected to reach 5 GW in 2030, generated by a combination of photovoltaic solar panels and concentrated solar power. Solar power is transmitted to EGA via Dubai's and Abu Dhabi's electricity grids and is tracked and traced through the use of the International Renewable Energy Certification system. This ensures that the energy used to produce EGA's CelestiAL solar aluminium is sourced from the sun. In 2022, 57 000 tonnes of CelestiAl were produced.

Figure 6. Mohammed bin Rashid Al Maktoum Solar Park, the source of solar electricity for EGA's CelestiAL solar aluminium [6].

Another contribution to lowering CO_2-eq from electricity production could be the use of nuclear energy in EGA's energy mix from reactors installed in Barakah, Abu Dhabi, which will have the capacity of 5.3 GW at full operation from 2023 [13].

2.2 PFC Emissions

Primary perfluorocarbon (PFC) emissions are the result of cell anode effects. PFCs are very potent greenhouse gases (GHGs) and their global warming potential (GWP) is calculated in terms of equivalent CO_2 emissions whose amount is proportional to anode effect frequency and duration. Figure 7 shows the PFC emissions.

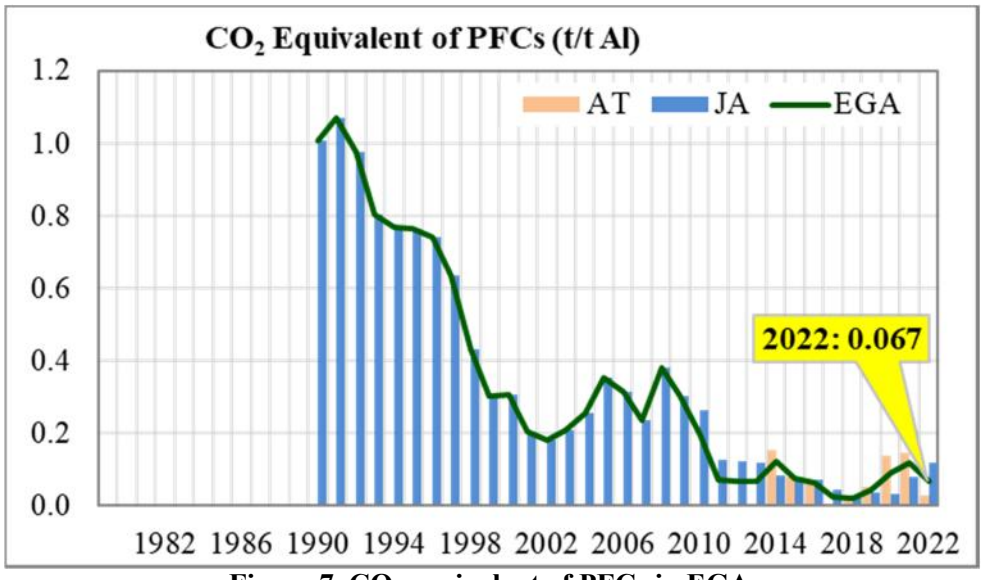


Figure 7. CO_2 equivalent of PFCs in EGA.

The PFC emissions have been reduced by 15 times since 1990 because of very low anode effect frequency and duration provided by advanced cell control systems, used in all EGA potlines now. In 2022, the CO_2 equivalent of PFCs at EGA of 0.0.067 t/t Al was 11 times lower than the world mean PFC emissions intensity of 0.75 t/t Al in 2021 (most recent data) in [12].

Background PFC emissions are not included in Figure 7, since there is yet no universally accepted formula to include them as explained in [14]. EGA invests in background PFCs studies to understand root causes [15]. Recent measurements in EGA demonstrated that EGA's DX technology has the world's lowest background PFC emissions.

2.3 Fluoride Emissions

EGA's fluoride emissions have always been carefully controlled and are in full accordance with international and UAE requirements thanks to the application of modern, EGA's home-grown smelting technology. Figure 8 shows total fluoride emissions from EGA Smelters. EGA's fluoride emissions are approximately 38 % below the global average: EGA emissions of 0.32 kg/t Al in 2022, compared to 0.52 kg/t Al global average for prebake technology in 2021 [12].

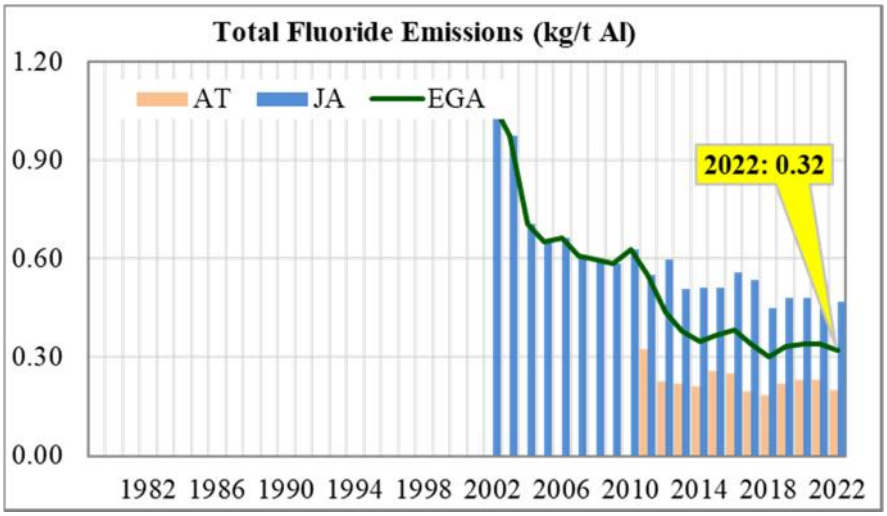


Figure 8. Total fluoride emissions in EGA.

2.4 NO_x and SO_2 Emissions

Exposed to high temperatures, nitrogen and oxygen react to produce NO_x. EGA's NO_x emissions are predominantly a result of the combustion of natural gas at our power stations. Between 2014 and 2020, NO_x emissions varied up and down between 11 800 and 14 400 t/year. In 2022, the total NO_x emissions were 8 225 tonnes, approximately 31 % lower than in 2021, and complying with Dubai regulations. This was primarily due to the commissioning of our new H-class power block at our facility in Jebel Ali, substituting several older, less efficient gas turbines. This new Siemens SGT-8000H combined cycle unit is the most efficient power block in the UAE and the first to serve the global aluminium industry.

The raw materials used to manufacture anodes used in the aluminium industry contain sulfur. As anodes are consumed at high temperatures during the reduction of alumina to form aluminium, sulfur reacts with oxygen to produce sulfur dioxide (SO_2). SO_2 is also produced in anode baking kilns. We control our SO_2 emissions through specifications set for the sulfur content of the raw materials we use in anode production. Also, an integral parameter of our smelting process is to minimise anode consumption during the electrolysis process. At our facility in Al Taweelah, we

operate a wet scrubbing system at several potlines, able to remove up to 95 per cent of SO_2 from our emissions. Between 2015 and 2021, NO_x emissions oscillated between 27 000 and 32 600 t/year, the latter being in 2020. In 2022, total SO_2 emissions were 30 729 tonnes, 6% lower than in 2020; this was predominantly due to the reduced sulfur content in the raw materials used to manufacture anodes at our facility in Jebel Ali. We also made efficiency improvements to our wet scrubbing system in Al Taweelah.

2.5 Bauxite Residue

The most significant, and often challenging waste material generated during the alumina refining process is bauxite residue. This material consists of the remaining ore fraction once alumina has been extracted through the Bayer process and comprises several metal oxides and some residual, highly alkaline compounds [16]. The hazardous nature of bauxite residue is principally associated with this high alkalinity which, if uncontrolled, can significantly alter the chemistry of natural environments.

Bauxite residue is generated since the start of EGA Al Taweelah alumina production in 2019 at the rate of approximately 0.9 tonne of residue per tonne of alumina. In 2022, we deposited 3.09 million tonnes of dried and pressed bauxite residue at EGA purpose-built storage facility in the desert, about 30 km inland from the alumina plant. But storage is not intended as our long-term solution for this waste. EGA has a dedicated R&D group tasked with identifying ways of converting this waste material into useful products, reducing or eliminating the need for storage and unlocking bauxite residue as a new material resource for the UAE. Research in converting bauxite residue waste material into useful products includes [7]:

- Optimised bauxite residue (OBxR) - converting bauxite residue to a benign material that can be used as a feedstock to other industries.
- Manufactured soil (Turba) from OBxR as a plant growth medium.
- Bioneutralisation, employing the use of naturally occurring microbial species to neutralise caustic-alkaline bauxite residue.
- Raw material for the steel industry – extracting high quality iron ore from bauxite residue.
- Using bauxite residue in construction products.

2.6 Spent Potlining (SPL)

EGA started to recycle SPL to cement industry in 2010 and sustained near 100 % recycling since 2016. SPL landfilling was stopped in 2012. In 2021 EGA recycled 46,248 tonnes of SPL, 93.9 % of in-year generation, to UAE cement industry for use as a feedstock and alternative fuel [7]. In 2022, EGA recycled 25 544 tonnes of SPL, 100 % of in-year generation. The use of SPL in cement production is shown to yield significant environmental benefits in terms of reducing emissions and coal consumption in cement production and destroying toxic substances in SPL. This initiative bolsters the concept of a circular economy in which different industries collaborate to improve environmental sustainability [17].

2.7 Water Use and Recycling [7-8]

In the UAE, the majority of our water use is for cooling during electricity generation. We extract seawater for this purpose, more than 94 per cent of which is returned to the sea. In the UAE, we do not use any of the UAE's groundwater reserves or other natural freshwater resources. We meet our freshwater needs through desalination of seawater which is subsequently used for industrial processes and steam generation, as well as for office and residential use on our sites. The desalination plant in Jebel Ali has the capacity of 48 000 m^3 per day, and in Al Taweelah, 17 000 m^3 per day. In 2022, our total water consumption in EGA UAE was 65.280 million m^3,

3 % more than in 2021, but 27.4 % less than in 2020. This reduction with respect to 2020 has been possible thanks to technology upgrades at our desalination facilities.

In order to minimise the need for desalination, we treat and recycle water from our onsite sewage treatment plants to meet our needs for landscape irrigation. We also reuse some of our cast-house waste water for our Fume Treatment Centre in Al Taweelah. In 2022, 635 000 m^3 of water was recycled.

We monitor the quality of the water we return to the sea for parameters including temperature, salinity, and dissolved oxygen, in order to identify any discernible impacts on the marine environment or variation in normal operating parameters. Any non-compliance with regulations is immediately investigated and addressed.

3. Second Sustainability Pillar - Social Responsibility

3.1 Health and Safety

The top priority of EGA is the health and safety of our people - employees and contractors. This is clearly indicated by internal and external polls in Figure 1 for 2021, and in similar graphs for previous years [3-6]. Every day, everybody has to come home safe. EGA management policies provide safe work environment through safety management policies, life-saving rules (Figure 9) incorporated in all safe operating procedures (SOPs), and through safety training of all employees and contractors. Figure 10 shows the number of employees and contractors that took safety training courses in 2022 in UAE (GAC data for 2021. E-learning safety training is also available for specific activities.

Figure 9. EGA life saving rules.

Figure 10. Number of employees and contractors that took safety training courses in 2022. UAE = United Arab Emirates, GAC = Guinea Alumina Corporation.

3.1.1 Safety Performance

Two important safety indicators of the plant are: Total Recordable Injuries (TRI) and Lost Time Injuries (LTI). Figure 11 shows these as rate per million hours worked since 2014, EGA UAE compared to the world as per IAI data [12]. The graph includes employees and contractors. It can be seen that EGA UAE TRI rate is about 60 % lower than the world, whereas EGA UAE LTI rate is 80-100 % lower than the world [12]. Zero or very low lost time injury rate has been achieved for several years in a row. In 2020, LTI was zero. The goal is to keep zero occupational health and safety fatalities and LTI among employees and contractors at our operations.

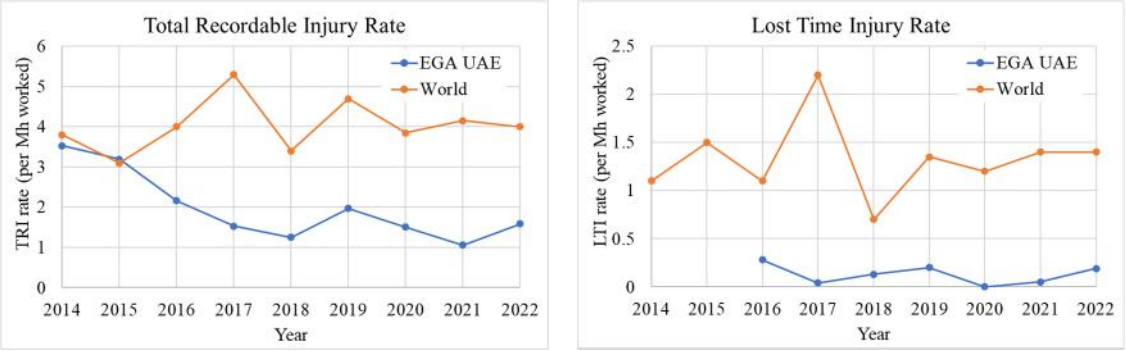


Figure 11. Total Recordable Injury rate (TRI) and Lost Time Injury (LTI) rate at EGA UAE [3-8] compared to the world, according to IAI data. The rate is per million hours (Mh) worked.

3.1.2 Heat Stress Management

Heat-related illnesses are a common risk for people working in industries with high temperature metallurgical processes, especially in hot climates. Temperatures and humidity levels in the Middle East, specifically in the United Arab Emirates, contribute to the emergence of heat related illnesses which are classified as occupational diseases.

EGA has decades of experience in protecting workers from heat stress and heat related illnesses. EGA has developed world-class best practices to ensure worker safety in hot conditions. EGA's heat stress prevention program 'Beat the Heat' includes training and awareness, provision of appropriate facilities for cooling down and hydrating, health monitoring, and many other controls [18]. Figure 12 shows a poster of 'Beat the Heat' advisory placed throughout the sites. In 2022, we conducted more than 45 736 hydration tests to ensure people working on our sites remained suitably hydrated. Due to early reporting and intervention, all reported heat related cases are quickly and effectively managed by EGA Medical Services with first aid treatment. Heat stress

illnesses have been practically eliminated through dedicated special management. EGA's goal is zero heat related illness cases, which was achieved in both 2020 and 2022.

Figure 12. A poster showing 'Beat the Heat' advisory [18].

3.2 Engaging with Communities

As part of EGA's core policy, we respect our neighbors and are committed to positively engaging with local communities wherever we operate to maximise the benefits of our presence while mitigating potential adverse impacts. In the UAE, EGA has a dedicated corporate social responsibility team that engages with local communities to gather feedback and understand how we can best contribute to their quality of life. EGA community projects included, among others, School Outreach Program, INJAZ UAE, and EGA's Ambassador Program, all three consisting of promoting science, engineering and innovation to high school and university students. EGA also supports employee volunteering activities through its 'Corporate Social Responsibility Club', which is open to any EGA employee who would like to volunteer their time to various community projects during or outside working hours. More than 100 volunteers have contributed over 1000-volunteering hours to community projects.

In Guinea, the development of our mining operation resulted in land-use changes and displacement of some households. For the displaced, new communities have been built with modern housing (Figure 13), schools and health facilities, access to water, and pastures for livestock. EGA supports local development and investment projects, which are identified through community-engagement forums and overseen by a steering committee including representatives from local communities and the prefect of Boké. In 2021, more than eight such projects were undertaken.

Figure 13. Modern houses equipped with electricity for displaced households [6].

3.3 Working at EGA – Diversity and Inclusion

Our employees come from countries across the world to join EGA. We are a global organisation with a global workforce comprised of over 50 nationalities. At EGA, we embrace the different perspectives, ideas and cultures that come with such a diverse workforce. We are also supportive of the goals of both Guinea and the UAE to develop the skills and employability of local citizens in order to maximise their potential contribution to the national economy. In both Guinea and the UAE, we have set local recruitment objectives to increase the number of locals in our workforce. Figure 14 shows the proportion of local workforce from 2018-2021. In 2022, in UAE, 23 % of workforce were nationals, and in Guinea, 86 % were nationals.

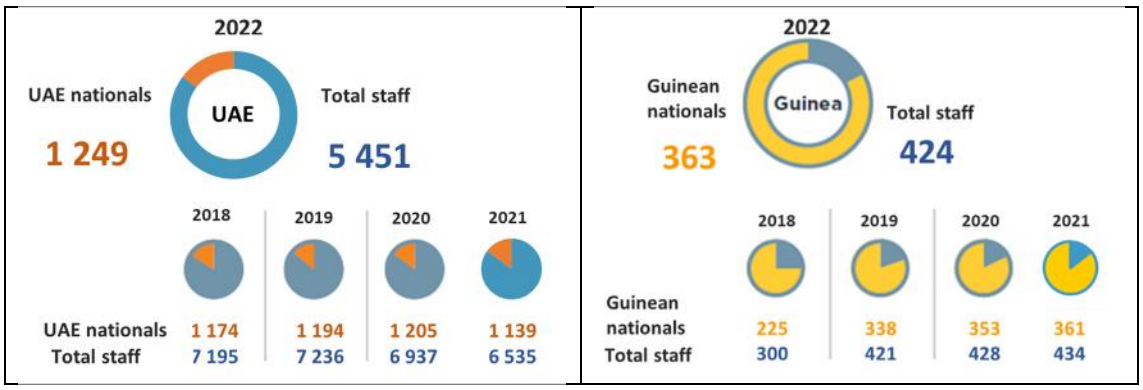


Figure 14. Nationals in the workforce in UAE and Guinea in 2022.

Another social responsibility is empowerment of women at work. At EGA, we recognise that the metals and mining industry has historically been a very male-dominated sector capable of creating a non-inclusive work environment for female employees. We are seeking to challenge this archetype, with plans to create a more inclusive workplace and increase the female representation among our workforce. Figure 15 shows the proportion of women in the workforce in UAE for 2022. In 2022, 21 % of all management and supervisory roles in the UAE were held by women and we have set ourselves the target of increasing this figure to 25 per cent by 2025.

Our Code of Ethics expressly prohibits any form of discrimination based on gender. Our basis for hiring is built on a consistent, fair and merit-based approach in accordance with equal opportunities regardless of gender. Also, our remuneration structure is identical regardless of gender.

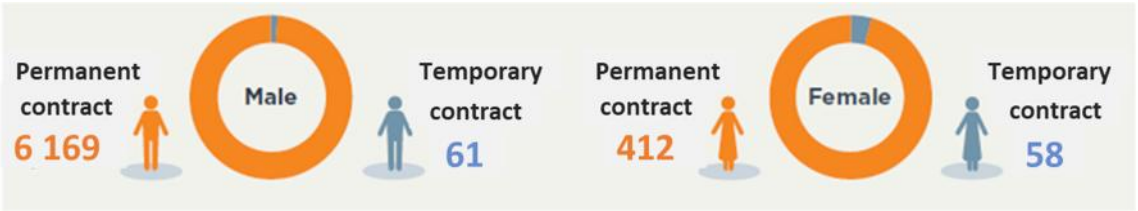


Figure 15. Total employee workforce by gender in 2022.

4. Third Sustainability Pillar – Good Governance

EGA's corporate governance practices have been designed to provide a foundation for value creation for all its stakeholders and to ensure sustainable and responsible long-term growth. The entire executive leadership plays and active role in EGA's sustainability agenda. The Board provides the leadership necessary for EGA to meet its business objectives within a robust

framework of internal controls. Its mandate is to provide entrepreneurial leadership and to oversee management.

4.1 Embedding Ethical Practices

Business integrity and ethics has the highest score in materiality matrix of Figure 1 for 2021. Ethical practices are embedded throughout our business. EGA's Code of Ethics establishes and communicates the standards that guide our behaviour and applies to everyone at EGA. EGA's on the Code of Ethics is mandatory for all staff, including our Executive Committee and is delivered as part of EGA's induction process for new employees, and followed up with an annual adherence declaration for all staff Third parties such as contractors, consultants or partners who work with or represent EGA are also required to follow the Code. Responsible Sourcing Standards have been established to regulate supply chain providers to the same values as ours. The Code of Ethics includes bribery, corruption, harassment, discrimination, misappropriation of assets, protection of EGA intellectual property, and using social media responsibly.

EGA takes anti-bribery and anti-corruption compliance seriously and recognises the high levels of risk in some of the countries in which we operate. Bribery not only undermines the rule of law and the principles of free and fair competition but also has a stifling effect on businesses and commerce. Regular risk assessments are a key part of an effective compliance program and all our operations have been assessed for risks related to bribery and corruption.

4.2 A Responsible Supply Chain and Local Procurement

An effective supply chain is essential to the competitiveness of our business. Responsible sourcing is a key commitment of our core policy which directly references the requirement for EGA's suppliers to adhere to our values. Established in 2016, our Responsible Sourcing Standards detail the commitments we require from our business partners in relation to human rights, labour rights, environmental performance, conflict-free minerals, health and safety, and workplace integrity, including anti-corruption, anti-bribery, harassment, discrimination and worker welfare.

Long-term, we will be establishing clear preferences for suppliers certified against recognised third-party sustainability standards, such as ASI.

EGA recognises that procuring goods and services locally increases the economic benefit of our activities for the countries in which we operate. Wherever we can, we maximise our utilisation of the local supply chain. Figure 16 shows percentage of local procurement budget from 2018 to 2022. In 2022, in UAE, 39 % was from UAE procurement and 61 % international. In GAC in 2022, 79 % was from Guinea, 2% from the rest of Africa and 19 % international.

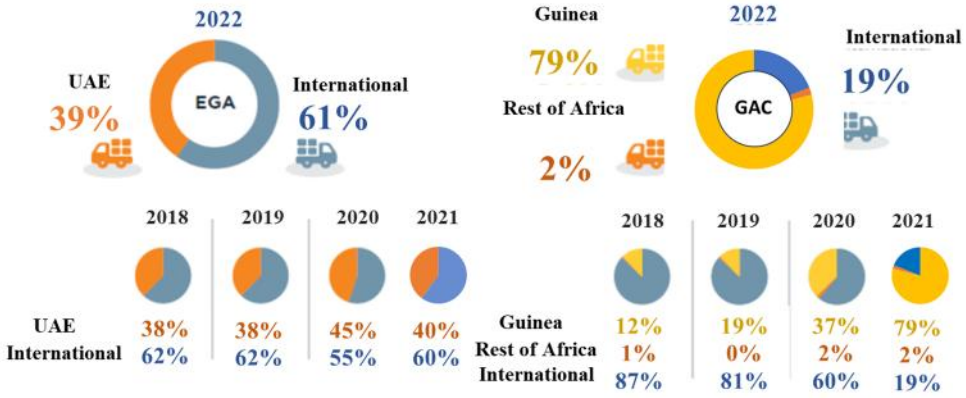


Figure 16. Percentage of procurement budget spent in UAE (left) and Guinea (right) in 2022 [8].

5. Conclusions

EGA is actively pursuing its sustainability goals in its core values: safeguarding the environment, social responsibility and good governance. EGA focus on sustainability helps us to set new production performance records and hot metal production trend shown in Figure 17 is good illustration of this.

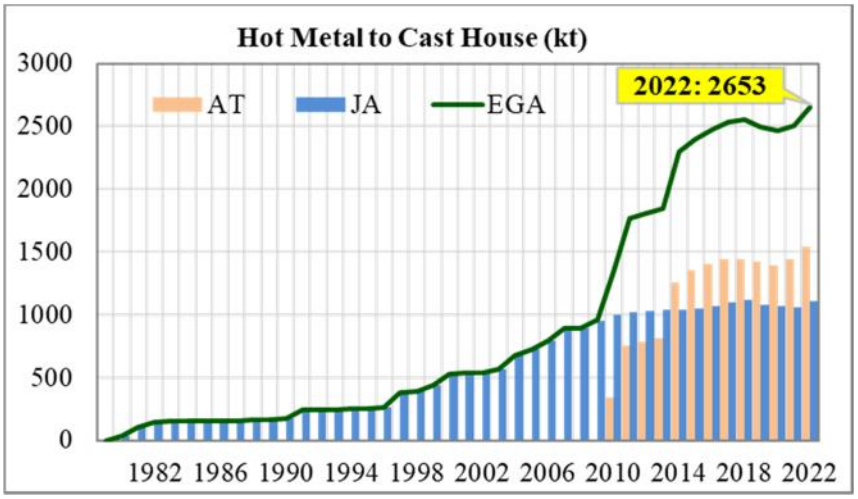


Figure 17. Annual production of aluminium reached record level in 2022.

To safeguard the environment, EGA has elaborated a decarbonisation roadmap commitment to net zero greenhouse gas (GHG) emissions by 2050. On the way to this goal, ASI certification in all spheres of activity is sought by 2030. The first priority on this path is decarbonization of electricity generation, turning from gas to solar and nuclear.

In social responsibility, the top priority is workplace health and safety, assured by management policies, life-saving rules, safe operating practices, and training. Community engagement benefits local socio-economic development. Diversity and inclusion give equal opportunities for well-being, and productive and innovative workplace.

EGA's corporate governance practices have been designed to provide a foundation for value creation for all its stakeholders and to ensure sustainable and responsible long-term growth. Ethical practices are embedded throughout our business. EGA's Code of Ethics establishes and communicates the standards that guide our behaviour.

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