



**GREEN
CROSS**
United
Kingdom

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CLIMATE POSITIVE CLIMATE MINING

CPCM PROGRAMME: EXECUTIVE SUMMARY.

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- Mining plays a crucial role in achieving sustainable development, and by providing a wide range of minerals, metals, materials and valuable elements (MM) it is fundamental to modern life.



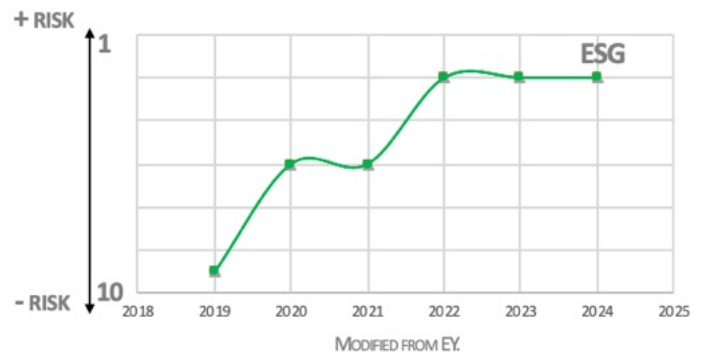
- The mining sector is directly and indirectly responsible for approximately 70% of CO2 equivalent emissions.
- Mining faces sustainability, environmental, social and climate challenges, such as decarbonization, environmental management and social license to operate.

- Climate Positive Mining (C+M) is a corporate mining model that drives the transition to a low-carbon world, aligned with the mission of critical minerals.
- The CPCM Programme is an independent, voluntary programme developed in cooperation with Harvard University and the U.S. Institute for Sustainable Infrastructure, aligned with the United Kingdom's International Council on Mining and Metals (ICMM). CPCM promotes MC+, based on a sustainable infrastructure approach and circular social contract with communities and public administrations.
- The CPCM Programme offers benefits for MC+ organisations and projects, such as sustainable operational excellence, ecosystem protection and restoration, interaction with peers, impartiality, environmental awareness, collaboration, innovation, learning, productivity, corporate image, inclusion and social equity, and job security.
- The CPCM Programme is an opportunity for the mining sector to demonstrate its ethics, responsibility and safety in its operations, and contribute to the construction of a sustainable future, understanding that sustainability is crucial for mining operations, employees, investors, the host community and society, and promoting it throughout the life cycle of the products of the Mining sector.

MINING: CHALLENGES, OPPORTUNITIES AND COMMITMENT FOR AN ETHICAL, RESPONSIBLE AND SAFE FUTURE.

Challenges:

- CO2 emissions: The mining sector is responsible for 70% of CO2 emissions. Reducing your carbon footprint is key to tackling Climate Change.
- Mining Paradox and Climate Change: Combating Climate Change Requires More Mining Production, Creating a Paradox in the Transition to a Low-Carbon Economy.
- Beyond decarbonisation: The mining sector must address environmental and social challenges, community management and social license to operate, ensuring sustainable development.
- Market challenges and commitments: Demand for decarbonisation and greenwashing pose additional challenges to the mining sector.
- Importance of the regional context: Challenges vary according to geographical location, requiring solutions tailored to each mining region.



Opportunities:

- Technological innovation: Adopting advanced technologies improves efficiency, reduces emissions, and minimizes environmental impacts.
- Ethical, responsible and safe mining: Establish responsible practices that address environmental and social challenges, promoting collaboration with local communities.
- Diversification of energy sources: Transition to renewable energies in the mining operation to reduce the carbon footprint and promote sustainability.
- Collaboration and partnerships: Collaboration between mining companies, governments, communities and NGOs drives joint solutions.
- Circular Bioeconomy: Integrating a nature-based economy favours the mining operation and the relationship with the community, minimizing waste.

CPCM PROGRAMME: CLIMATE MINING.

1. CPCM PROGRAMME OBJECTIVE:

- Transform the mining industry into a driver of Sustainable Development, promoting an ethical, responsible and safe approach within the sector, addressing environmental, social and climate challenges.
- The programme seeks to accelerate the transition to Climate Positive Mining (C+M), a corporate mining model designed to achieve a low-carbon future, through the implementation of sustainable practices towards decarbonisation, the regeneration of natural environments and the incorporation of communities.

2. MINING: POWERING THE FUTURE WITH VITAL RESOURCES.

Mining plays a crucial role in achieving Sustainable Development, and by providing a wide range of MMs, it is fundamental to modern life; among other activities, they facilitate agriculture, medical care, communications, water and energy supply, transportation, space technology, and construction.

Below are some key points that highlight the importance of mining in Sustainable Development:

- Economic contribution: Mining is an important source of employment and contributes significantly to the global economy. Mining accounts for about 20% of the Gross Domestic Product (GDP) of developing countries, driving economic growth and poverty reduction.
- Supply of essential minerals: Mining is critical to sourcing essential minerals and metals used in various industries, such as infrastructure, electronics, renewable energy, electric vehicles, and healthcare.
- Renewable energy and clean technologies: The energy transition depends on the necessary minerals and metals, such as lithium in energy storage batteries, cobalt in electric vehicle batteries, and neodymium in wind generators.
- Infrastructure development: Mining is essential for building infrastructure such as roads, bridges, buildings, and transportation systems, through the production of building materials such as cement, steel, and aggregates.

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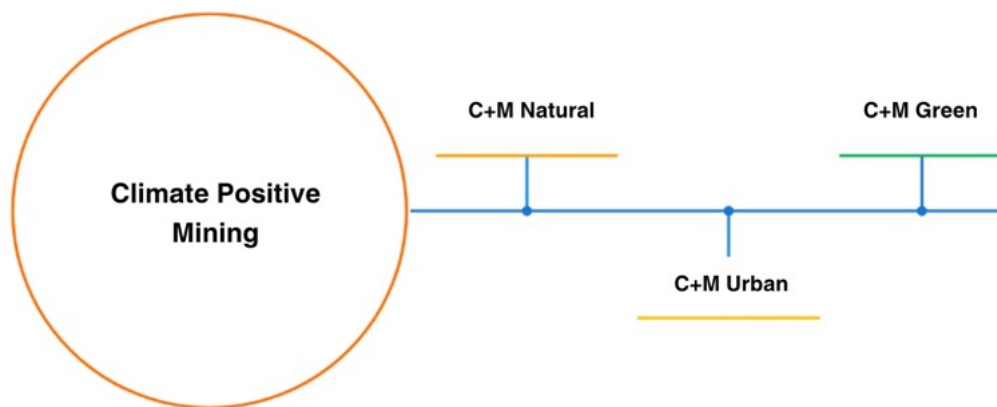
3. CLIMATE POSITIVE MINING: CORPORATE MINING MODEL.

Climate Positive Mining (C+M), defined by the International Renewable Energy and Mining Observatory (REMIO) in collaboration with Green Cross United Kingdom, represents a corporate mining model that drives the transition to a low-carbon world. Its main objective is to obtain MM in a responsible, ethical, safe and sustainable way to address Climate Change and Global Change, as well as to promote the circular and social economy.

One of the key benefits of C+M is its ability to develop a region's assets, maximizing economic and social benefits while minimizing negative impacts on the environmental and social environment.

Green Cross, through CPCM, offers comprehensive Climate Positive Mining (C+M) solutions, promoting its ethical, responsible, safe and sustainable approach in the mining sector throughout the life cycle.

C+M is based on three fundamental pillars:



- Mining with natural environments: Through the extraction of CO₂ from the atmosphere, the aim is to regenerate agricultural and forest ecosystems in the areas of operation.
- Mining with waste: From the promotion of recycling and the incorporation of communities, the use of existing resources is maximized and the generation of waste is minimised.
- Mining with green technologies and practices: The ethical, responsible and safe extraction of MM is encouraged, promoting decarbonization. This involves the use of technologies and practices that reduce environmental impact and promote sustainability.

CPCM PROGRAMME: CLIMATE MINING.

4. BRIEF DESCRIPTION:

- CPCM provides a medium and long-term course of action, establishing gradual and progressive milestones to measure, report and verify compliance with agreed objectives. In addition, it seeks to move towards milestones that generate a positive impact on C+M.
- CPCM offers an ethical, solid, secure, transparent and traceable framework through its digital platform based on Blockchain. This platform is run by an impartial NGO with the aim of minimizing potential risks in terms of construction, environment, institutional, social and others. This provides confidence to public agencies, regulatory bodies and investors.
- The dynamic axes of the CPCM Programme are Social Impact, Governance, Life Cycle Resources, Environment, Risk. and Resilience and Castling. These axes, together with 73 sustainability criteria, comprehensively address sustainability and form the basis of the programme, and on which a circular social contract is established with communities and public administrations based on the circular, social, environmental and climate Bioeconomy. This beneficial, value-added model involves all stakeholders.



- The CPCM Programme simplifies and supports a C+M entity's or project's access to Green Finance by recognising and verifying the objectives achieved. In addition, it provides support and protection to the entity or project, ensuring the resolution of problems and conflicts thanks to its solid experience and proven methodology, demonstrating compliance with sustainability criteria.

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5. CPCM MILESTONES:

To achieve C+M, CPCM proposes the following milestones:

1. ASSESSMENT

- Validated needs: Private (CSR, ESG, SDG, ...) Public (NDC, SDG, UN, ...).
- Framework Agreement.
- Assessment.

2. ROADMAP

- G+ Programme: CPCM.
- Level of Achievement.
- S&E Footprint by C+.

3. IDEAS INTO ACTION

- SOW.
- Projects within ASV.
- G+ Shielded.**

4. VERIFICATION

- MRV.
- Value Added.



- **Evaluation:** Current challenges and needs are identified, through an Assessment which defines a starting point for current sustainability.
- **Roadmap:** A clear approach is established to achieve Sustainable Infrastructure and C+M, based on the level of achievement defined in each sustainability criterion, as well as on the environmental and social footprints. The Roadmap details the specific actions, activities and commitments that will be carried out. This includes following standards and methodologies, obtaining certifications that provide a competitive advantage, as well as other intermediate steps necessary to achieve the ultimate goals. The use of IoT devices will allow reliable relevant data to be collected and analysed for progress tracking.
- **Ideas in action:** Each action and project of the Roadmap receives assistance and advice to ensure that each of them generates Sustainable Added Value and its due compliance, from risk governance, technological assistance, digital expansion and didactic arbitrage.
- **Verification:** MRV (Measurement, Reporting and Verification) is used to monitor and evaluate the impact and added value of sustainability benefits, and then award the international distinction. Extrapolation of the fulfilled criteria from CPSI to ESG/SDG is made for use with the different stakeholders.

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6. CPCM VERIFICATION:

Verification is an important component of CPCM, which allows to demonstrate commitment and compliance towards sustainable infrastructure and C+M.

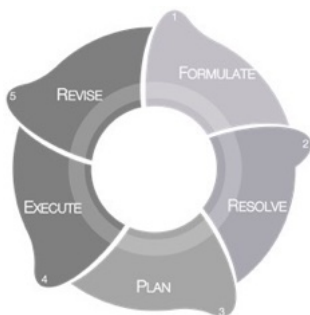
CPCM implements a three-tier verification system to assess progress in meeting targets. The C+ Advisory Board is responsible for conducting independent reviews and verifications to ensure the transparency and fairness of the process.

Benefits:



- Provides leadership to the organization and/or project in the sector and beyond, by clearly defining and documenting its sustainable, resilient, and equitable achievements.
- Encourages and rewards best practices, inclusive engagement, and sustainable performance to strengthen community trust, aligning with international goals.
- It allows demonstrating the compliance of the organization and/or project beyond environmental, social and economic standards, avoiding environmental and social conflicts.

7. ASV METHODOLOGY:

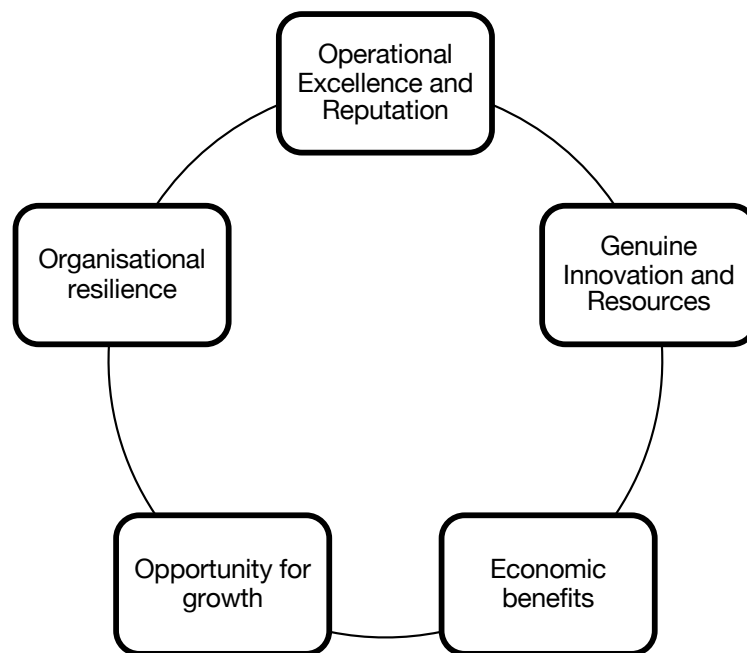


- G+UK has adopted the principle and methodology of "Sustainable Value Added" (ASV) as a guide for its operations, promoting the collaborative associative approach to create and share value, generating benefits for all parties involved, ensuring the sustainability of the NGO and impartiality.

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8. VIRTUOUS CIRCLE:

- CPCM is not just a programme, it is a model for the approach developed by the third sector that also promotes alliances and two-way relationships, through a global vision.



- Operational Excellence and Reputation: Through its framework of action and international recognition, holistic, traceable and transparent impact metrics, it improves the reputation of the organisation.
- Innovation and Genuine Resources: Allows access to sustainable financial instruments, green, climate and sustainability funds, valorization of Natural Capital, and Ecosystem Services. It also allows for the generation of innovation instruments among peers.
- Economic benefits: It allows cost savings, reduces risks and pressures from stakeholders and provides organizational value.
- Growth opportunity: Propels the organisation into new markets. To innovation through Blockchain and Tokenomics model, supported through the Green Cross Global Network.
- Organisational resilience: CPCM allows reducing the vulnerability of the organization, generating adaptation and mitigation strategies, to achieve long-term viability.

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9. CASE STUDIES:



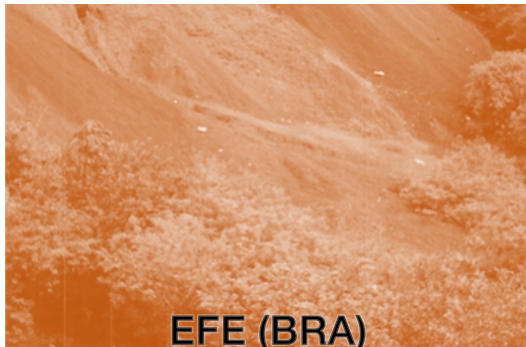
REMSA (ARG)

Hybrid microgrids. Diesel replacement.



Cerro Verde (PER)

Reduction of peaks and load change.



EFE (BRA)

Circular Economy: Metals.



HATHOR (G)

Local food (0km). Livestock.



OKM (ARG)

Local food.



CE(PER)

Energy Crops.

ABOUT GREEN CROSS INTL.

- Green Cross is a Non-Governmental Organisation (NGO) founded by Nobel Peace Prize winner Mikhail Gorbachev in 1993. With more than 30 years of experience, operations or presence in six continents: Africa, America, Antarctica, Asia, Europe and Oceania.
- Green Cross has focused on promoting Sustainable Development through the planning and implementation of initiatives and programmes, cultivating a sense of global interdependence and shared responsibility.
- Green Cross is an Observer Organisation with consultative status with the United Nations, and as a non-profit NGO all our actions are planned and executed for the benefit of Communities and the Environment.
- As a member of the Climate Chain Coalition – an entity linked to the UNFCCC to promote Climate Action on blockchain-based financial platforms – Green Cross United Kingdom (G+UK) believes in circular economy models to provide the sustainability framework under a digital blockchain platform.



Mikhail S. Gorbachev
Founder President of GCI

¿WHO GREEN CROSS SERVES?

COMMUNITIES/PEOPLE

ENVIRONMENT/PLANET



PUBLIC SECTOR  PRIVATE SECTOR  3RD SECTOR



**LET'S DO SOMETHING AMAZING TOGETHER, STARTING BY STAYING
IN TOUCH:**

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