



 GREEN CUBES

Samarco adding the green thread to the mining life-cycle

Mina Alegria – Making nature visible



Samarco adding the green thread to mining, making nature visible with Green Cubes

Samarco, a major player in iron ore pellet production, is implementing Green Cubes to advance its efforts in sustainable mining, taking reclamation and environmental monitoring to the next level. Green Cubes Digital Reality provides capabilities for successful reclamation projects, environmental reporting, and permitting, enabling a green competitive edge and laying the foundation for potential future revenue streams through Natural Capital. The Green Cubes journey at Samarco begins at the compensation areas, near Mina Alegria, located in south-eastern Brazil in Minas Gerais, home to one of the largest iron ore reserves in the country, spanning approximately 500 km².

Mina Alegria



"Understanding the value of our biodiversity is directly connected to our purpose of doing a different and sustainable mining." — Bruno Pimentel



Sustainability and mining reclamation at Samarco

As part of the strategic direction of the company and to follow mining regulations in Brazil, Samarco is actively contributing to nature restoration. In addition, both for being part of the extractives industries and due to the historical failure of the Fundao dam, Samarco is raising the bar, working actively to establishing strong safety solutions and boosting their ESG contributions, lowering emissions, waste and securing a positive nature impact. Samarco is committed to contribute to nature restoration, covering several aspects:



Driving restoration activities until the land can be handed over, to reduce maintenance fees.



Conservation of protected habitats and restoration of previously damaged environment.



Continuous monitoring of any potential environmental impact to the areas next to the mine.

Shaping the future with Digital Reality

Samarco activates Green Cubes to enable full-capacity environmental monitoring to track restoration progress, enhancing regulatory compliance, strengthening community engagement, and set a foundation for natural capital. Powered by world-class sensors and advanced AI processing, Green Cubes offers a digital window into nature, making nature visible through visualisation. Starting at the restoration areas near Mina Alegria site, delivering a seamless, transparent view of environmental performance - a green thread for innovation, collaboration and efficiency gains.



Experience & Community engagement



Planning conservation restoration



Permitting & Reporting



Natural capital assessment

Green Cubes Experience points

Starting at Mina Alegria with connected restoration and compensation areas, Horto Alegria and Gaio, Samarco activates the Green Cubes Experience in seven experience points, and an additional XP in Germano. The chosen sites are of strategic importance to Samarco, to enable comparison across specific sites and to support internal and external engagement.

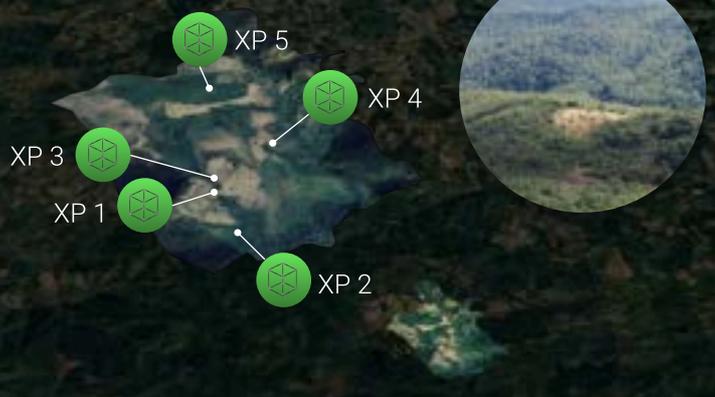
Horto Alegria

3 Experience Points



Gaio

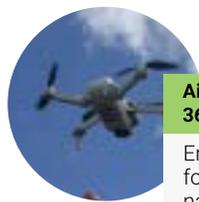
5 Experience Points



Activating the Green Cubes Experience

In the initial phase, the Green Cubes methodology is implemented across seven distinct experience points, promoting environmentally responsible practices at the Horto Alegría and Gaio compensation sites. This initiative supports educational programmes while also enhancing engagement with communities, investors, customers and stakeholders throughout Samarco.

The Green Cubes Experience XP is activated by fusing data from the sky, 3D scanning and sensors for fauna and flora:



Airborne 360 camera

Enabling the immersive forest experience, making nature accessible to society.



Terrestrial LiDAR

Measuring flora complexity, indicating state of biodiversity.



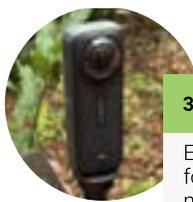
Camera Traps

AI trained camera traps for ground truthing fauna verification.



Terrestrial LiDAR

Measuring flora complexity, indicating state of biodiversity.



360 Camera

Enabling the immersive forest experience, making nature accessible to society.

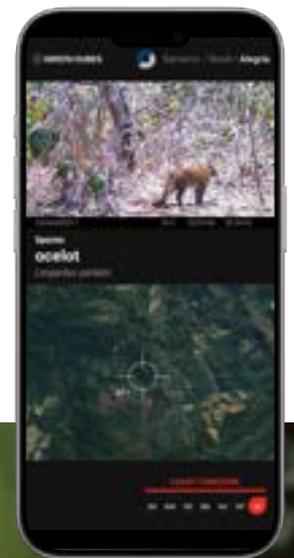


Audio Traps

AI trained audio traps for fauna verification through sound recording.

Step into nature through a single pane of glass

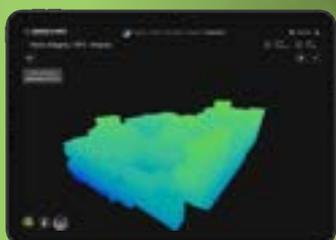
All data captured is integrated into the AI-powered Green Cubes platform, creating a digital window into the forest. This platform makes nature visible, both for data reporting and restorative scientific analysis, while also enabling an immersive experience for internal and external engagement. It offers virtual access to the forest for the local community, wider society, corporate stakeholders, and decision-makers, effectively making nature visible and accessible.



Immersive Experience



3D point cloud



Biovolume





HEXAGON



Revolution

Hexagon is the global leader in measurement technologies. We provide the confidence that vital industries rely on to build, navigate, and innovate. From microns to Mars, our solutions ensure productivity, quality, safety, and sustainability in everything from manufacturing and construction to mining and autonomous systems.

Hexagon (Nasdaq Stockholm: HEXA B) has approximately 24,800 employees in 50 countries and net sales of approximately 5.4bn EUR.

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