

## Golden Sovereign Mines

12<sup>th</sup> November 2025

**Pilot plant to start milling gold at this African toll processing growth play based on a proven business model with 60% GP margin, rapid expected payback & dividends. Conflict-free gold verified by Blockchain.**

Golden Sovereign Mines (GSM) is a pre-IPO opportunity to invest in a gold consolidation vehicle focused on the toll treatment of ore mined by African artisanal miners. The company is adopting a proven business model that has been well tested in Africa. The rollout of GSM's strategy is well timed, as many African nations are creating national action plans to transform the artisanal and small-scale mining (ASM) gold sector. It is not just about legalising ASM to collect taxes, etc., but also mitigating serious health problems, exploitation and environmental damage. AI will enable operational efficiency, providing an opportunity to add intellectual value and IP to African mining.

### • Harnessing the skills of artisanal miners responsible for 20% of world gold

The company is setting up joint ventures with registered local artisanal miners to deliver ore to its toll processing plant. With no mine to build, progress is expected to be rapid. With low production costs and a current gold price of US\$4,000, there could be profits of around US\$2,400+/oz to be shared with the local miners. This is conflict-free gold, and its provenance will be recorded on the Blockchain.

### • Three target projects in Zambia, with the first operational within 2 months

GSM plans to invest US\$750,000 to finance a processing plant at the VCFD Rufunsa gold project in its 70:30 JV with the Canadian Veterans' Commodities For Development (VCFD). £750,000 is being raised in a pre-IPO issue at 5p per share, at a £4 million valuation, to fund this move. Rufunsa will be followed by JV projects 2 and 3, where the first production is scheduled for Q3-Q4 2026 and Q1 2027. Initial production is expected to commence in Q1 2026, increasing to over 10koz gold per annum. Returns could be highly attractive, with a quick payback and substantial dividends anticipated.

### • Growth with 3 more projects in the pipeline to be funded out of cash flow

Future growth is mainly expected to be funded from the strong internally generated cash flow. A well-developed strategic plan and Letters of Intent are already in place with artisanal mining groups in Kenya and Zambia, so further expansion appears promising.

### • Updated valuation of £44.3m, or 52p per share, suggests >10x upside

High potential returns are expected to result from the initial projects. Peer group comparisons suggest a valuation of £44.3 million, or 52p per share, which we believe could be achieved by 2027 when all three initial gold projects are in production.

Table: Financial overview. Source: Company & Optimo Research

Year to end Dec	2025E	2026E	2027E	2028E
Revenue (£'000)	-	4,715	19,538	25,731
PTP (£'000)	(250)	3,037	14,071	20,539
EPS (p)	(0.52)	1.33	8.65	13.47

## TARGET PRICE – 52p

### Key data

Listing	Pre-IPO
Share price	5p (pre-IPO issue)
Shares in issue	60,353,333
Market Cap	£3.02m
Sector	Mining

### Gold price (10 years)



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**IMPORTANT:** Golden Sovereign Mines (GSM) is a client of Optimo Research Ltd and has paid for the production of this research report.

Optimo Capital Limited, a company linked to Optimo Research Ltd by way of ownership, holds a net long position in GSM shares of >0.5%.

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## Business Overview

### Golden Sovereign Mines Operations

Golden Sovereign Mines is a gold production consolidation project that focuses on toll treating ore mined by artisanal miners across Africa. Currently, there are three developments planned in Zambia, with opportunities to expand into several other African nations. Once the first project is operational, the main source of funding for future growth is expected to be the strong internally generated cash flow. Oversight and management will be provided by the company's technical partner, Sutton Consulting International, which has a long and successful history of manufacturing, installing, and operating such toll treatment facilities.

- **VCFD Rufunsa Gold Mining (Mukunka Mining Limited), Zambia (70%)** — Agreements are in place with the local chief and communities to enable VCFD Rufunsa to start production. This project is a joint venture with Veterans' Commodities For Development (VCFD), which has an agreement with Princess Agnes Banda, the granddaughter of the local lady chief, who is being granted a mining licence. A total investment of £500,000 is needed to bring this initial project into production, with plans to begin in Q1 2026 and produce around 5 Koz per year once the mill is operating at full capacity. A small pilot plant will start operation in December 2025 to process ore already purchased and stored at the site ahead of the purchase and deployment of a larger plant in Q1 2026. Sutton is not responsible for Rufunsa but will be reviewing the project.

- **Iron Cap Gold Mining, Zambia (70%)** – Has an exploration licence which is being upgraded to a small scale mining license and processing licence, with significant exploration work completed. The project is currently planned to include a 100tpd tolling operation for artisanal ores, processing ore at a grade of 4g/t gold, with a 120tpd mining operation scheduled for the second phase. Previously, the mine produced a reported 38koz of gold before mines were nationalised in Zambia, which halted production. A combination of low gold prices, poor management, and limited financial capacity appears to have hindered multiple attempts to restart mining activities. Recently, the Korean Government provided a grant, and exploration continues. Now, funds are required to develop the mine and establish a processing plant for artisanal miners in the area.

- **Mumbwa Gold Mining, Zambia (50%)**—This start-up project is development-ready, with informal agreements in place with local Chiefs and communities. Formerly known as the Golden Cheetah Gold Mining Project, the plan includes a milling area where local miners will process their ore under a processing agreement. The design of the milling site features three tolling treatment lines, each with a capacity of 13 tonnes per hour (tph), processing around 200 tonnes per day (tpd) at approximately 4g/t gold attributable to the company. This amounts to 12oz of gold per day for the company, equating to more than 4,000oz of gold annually.

- **Project pipeline** - GSM has expressions of interest for two additional projects in other African countries using the same business model. Project Number 4 might be in Kenya, where GSM's associates and Sutton Consulting are undertaking work on a tailings reclamation project, or Zimbabwe, where there is the possibility of the present owners vending an existing tolling facility to GSM.



## Pre-IPO offer

The board is reviewing the proposed capital structure as outlined in the table below. Funds provided by the Seed Investors have been used to formalise all joint ventures into legally binding agreements under Zambian law and relevant foreign laws. The company appears highly cash-generative, and the board is considering returning some of these profits to shareholders through dividends, which could total 25% of net profits in the future.

	Shares	£	Shareholding
Founders	41,000,000		48.04%
Seed investors A at £0.01 per share	2,220,000	22,200	2.60%
Seed Investors B at £0.015 per share	17,133,333	257,000	20.07%
Pre-IPO £0.05 per share in November 2025	15,000,000	750,000	17.57%
IPO at £0.10 per share (expected)	10,000,000	1,000,000	11.72%
<b>TOTAL</b>	<b>85,353,333</b>	<b>2,029,200</b>	<b>100.00%</b>

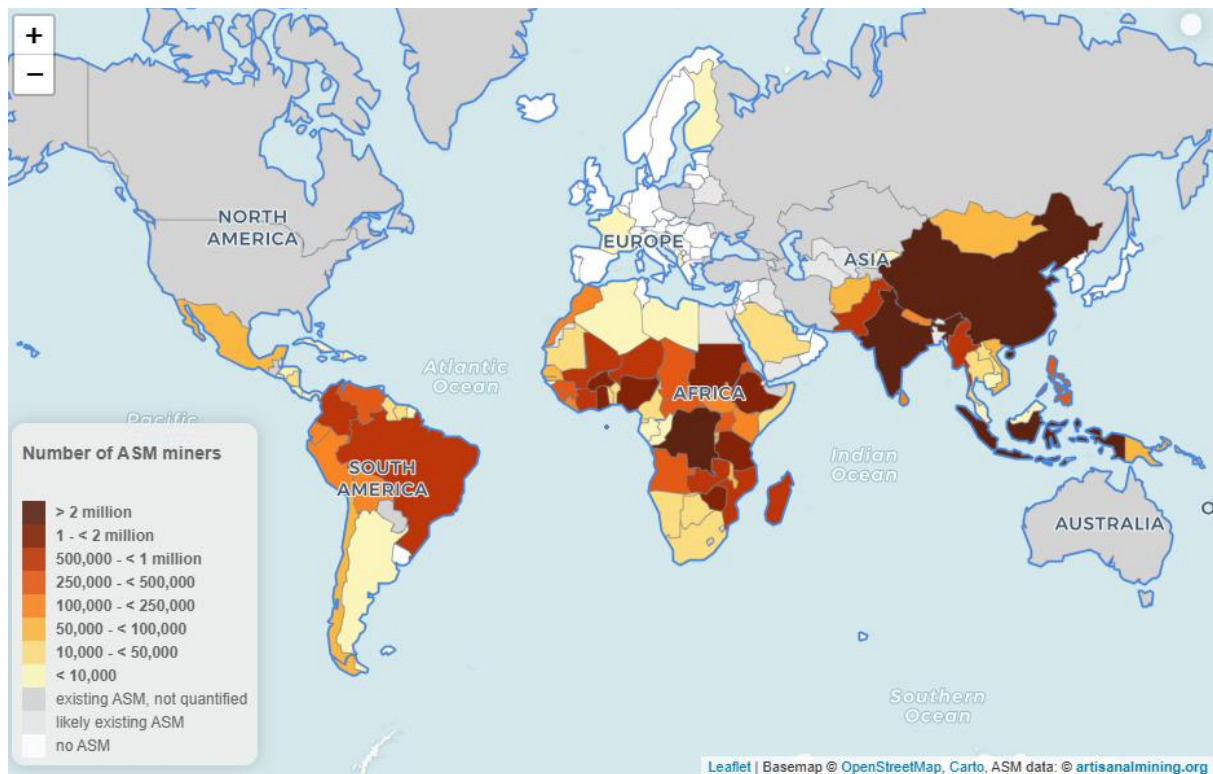
NB. Optimo Capital Limited, a company linked to Optimo Research Ltd by way of ownership, currently has a shareholding of 1.5 million shares in GSM.

*Capital structure. Source: Company*

## Artisanal mining

Artisanal and small-scale mining (ASM) is a primarily informal economic sector in which workers use basic tools and low-tech equipment to extract minerals and metals, including gold, cobalt, tin, tungsten, tantalum, diamonds, gemstones and coal. Artisanal mining is characterised by manual labour, minimal mechanisation, and typically poor health & safety and environmental conditions.

The World Bank reckons that ASM employs more than 45 million people in 80 countries, though others suggest it is prevalent in 119 countries. Another 270 million people provide services to this sector, meaning this poorly recognised industry employs 315 million people globally.



World map of artisanal and small-scale mining. Source: [www.artisanalmining.org](http://www.artisanalmining.org)

Over the last 20-30 years, the contribution of ASM to major global mineral supplies has increased significantly. In the 1990s, ASM supplied around 4% of global minerals, but today, industry experts estimate it at 20%. Concerning critical minerals, ASM accounts for approximately a quarter of global tantalum and tin production. Much of this growth results from illegal mining, which causes escalating social issues and severe environmental impacts.

Ghana, one of the most prolific gold-producing countries in Africa, saw registered artisanal production in early 2024 account for 36% of the country's total exports of 1.7Moz. This amounts to 600,000 ounces valued at US\$1.7 billion at current gold prices. One thing is certain: this figure is almost certainly an understatement, as much artisanal gold production remains undeclared.

The World Bank aims to support this vital aspect of global mining by emphasising legitimacy and professionalism. To achieve this, the bank seeks to encourage governments worldwide to address unregulated activities and promote responsible ASM. Simultaneously, they hope to attract more technical and financial expertise to the ASM sector. There is a definite role for industry partnerships in fostering sustainable and responsible ASM.



## **Serious environmental impacts**

Small-scale gold mining may provide a livelihood for millions, but it comes at a high cost. These highly inefficient methods rely on using mercury. Artisanal and small-scale gold mining are said to release around 1,000 tonnes of mercury annually into the environment. All of it ends up in the tailings, where it can leach into water supplies and enter the food chain.

Mercury is a neurotoxin that affects the part of the brain responsible for coordinating movement. Consequently, mercury poisoning leads to slurred speech, stumbling, uncontrollable trembling, and damage to the kidneys and other organs. Despite these severe effects, mercury poisoning tends to be a long-term problem that does not usually attract the same media attention as more rapidly acting poisons.

The UN Environmental Programme (UNEP) is launching a global initiative in 26 countries, including Zambia, to cut mercury use in SMA, the largest source of human-made mercury pollution emissions. This effort aims to enhance the health and well-being of local mining communities.

## Zambia

Zambia is the largest landlocked country in Southern Africa. Its area is 290,587 square miles, slightly larger than France. It shares borders with eight neighbouring countries. The country has a relatively low population, with only 18 million people, who are generally quite poor. Its GDP per capita is approximately US\$1,300 per year.



Map of Zambia. Source: [www.worldatlas.com](http://www.worldatlas.com)

Zambia is one of the most stable countries in Southern Africa, and it has a functioning multi-party democracy. President Hakainde Hichilema was elected in August 2021 in an election which saw the country's highest turnout ever. He is a member of the ruling United Party for National Development, a liberal political party.

### Mining industry

The country possesses abundant mineral resources, mainly led by copper. The Zambian Copperbelt is rich in copper and cobalt and ranks as the sixth-largest copper producer globally. Copper mining significantly contributes to Zambia's economic growth by earning foreign exchange. Additionally, the nation also has deposits of gold, platinum, lithium, nickel, bauxite, zinc, and lead.

Zambian gold production was 2,432t (78Moz) in 2021 and declined to 1,515t (49Moz) in 2022, primarily due to the lack of progress in formalising known artisanal mining activities and delays in reopening the Kansenseli and Mumbwa Gold Mines. Gold typically occurs as a by-product of large copper mining projects. Zambia's main gold producers include Matala and Dunrobin, owned by Luri Gold (ASX:LGM), along with Jessie and Sasara. Gold mining is mostly small-scale, and it is believed that over 30,000 miners are involved in the largely informal artisanal gold sector.

## Government support

The Zambian government is a strong supporter of mineral exploration and is fully committed to mine development. It has adopted a pragmatic mineral policy designed to enhance investment in the mining industry and ensure the development of a sustainable minerals-based industry. Privatising many companies, especially in the copper mining sector, which were previously managed under the parastatal umbrella of Zambia Consolidated Copper Mines Limited (ZCCM), clearly demonstrates this commitment.

Zambia planned to formalise gold trading by the end of 2024. This effort by the Ministry of Mines aims to bring structure to gold trading. To date, the government has openly acknowledged that this sector has been fragmented and informal, which has largely prevented Zambia’s potential as a gold producer from being realised. The plan involves setting up official gold marketing centres to curb illegal mining, boost revenue, and improve resource management. Simultaneously, the government has launched PlanetGOLD Zambia, an initiative to reduce mercury use in small-scale gold mining. This initiative is part of a global programme.

## Licensing

In line with its stated Mining Policy, the Government of Zambia amended its legislation with the Mines and Minerals Act (1995). This act notably streamlines licensing processes, sets reasonable minimum constraints on prospecting and mining activities, and promotes a favourable investment environment while permitting the inclusion of international arbitration in development agreements. A framework for responsible development has also been established through the publication of the Environmental Protection and Pollution Control (Environmental Impact Assessment) Regulations of 1997 (Ministry of Mines and Mineral Development, 1999).

Prospecting Licence	It gives the right to prospect for any mineral over any area for a period of two years, renewable.
Retention Licence	Confers the right to retain an area, subject to the Minister’s agreement, over which feasibility studies have been completed, but market conditions are unfavourable for the development of a deposit at that time. The size of the area may be covered by a Prospecting Licence or a smaller area as defined by the Licence holder. The duration would be three years and renewable for another three years.
Large Scale Mining Licence	Gives exclusive rights to conduct mining operations and other acts reasonably incidental thereto in the area for a maximum of 25 years. The area to be held should not exceed the area reasonably required for the proposed mining operations. Applications need to be accompanied by environmental protection plans and proposals for the employment and training of Zambian citizens.

*The three types of licences which are available to large-scale operators in Zambia  
Source: Ministry of Mines and Mineral Development, 1999*

## Operations

GSM aims to capitalise on the opportunity to process artisanal gold in Africa. The company's approach is to conduct toll processing through joint ventures, partnering with local operators who have a proven record of mining efficiently and safely.

Gold processing plants are situated throughout Africa. In Zambia, outdated technology often leads to recovery rates below 50%. Artisanal miners may travel up to 100 km to have their ore processed or try to process it themselves using inexpensive, basic Chinese machinery, which is frequently unreliable.

## Business model

The company will manage and hold at least a 50% stake in the joint ventures, funded via loan agreements. The joint ventures will be located near existing artisanal gold production. In the initial plants, GSM will subcontract the management role to Sutton Group under a three-year contract, which will retain overall control of the on-site management.

A toll processing plant will only be established once each joint venture has obtained a Mineral Processing Licence and a Gold Trading Licence issued by the Central Bank. Furthermore, the JV must have completed an Environmental Impact Study and received Operations Approval from the local Environmental Management Agency.



*A typical toll processing site. Source: Company*

The strategy focuses on installing a process plant using proven technology. For the initial project in Rufunsa, the plant will be delivered from South Africa and is a mobile modular unit suitable for the terrain and location. For projects 2 and 3 at IronCap and Mwumba, Sutton will deliver, assemble, and oversee the plants at GSM's sites. The toll processing plants include crushers, milling machines, cyanidation tanks, smelting facilities, and a gold room with trading facilities. These plants are modular, with a capacity of 2-10 tonnes per hour (tph), and can be customised to meet the expected level of supply.

The nameplate capacity is expected to be reached 6-8 months after placing the order, with production starting in 4-5 months. Some civil engineering work must be completed before installation, including organising concrete pads, water supply, and a tailing deposition facility — all of which can be installed during the manufacturing process. All equipment arrives in containers, and installation is relatively quick, taking only a couple of weeks, as it is a modular plant bolted onto its foundation. Once processing begins, production usually ramps up from 60% to 100% over 3-4 months. The business plan anticipates that the joint ventures will generate their first profits six months after authorising the plant's commissioning and, in the case of the plant at Rufunsa, sooner.



GSM and its JV partners contract with local licensed artisanal miners, who deliver ore to the plant. The ore is then refined into gold doré bars with a purity of over 95%. The company levies a processing fee of 50-80% of the gold content. The remaining gold belongs to the artisanal miners and is subsequently bought by GSM, usually at a discount to the LBMA price.

The resulting gold doré bars are 100% owned by GSM and its JV partners and are then transported to Lusaka for sale on the international gold markets or to the Reserve Bank at the prevailing LBMA price, less a 6% trade tax. Traceability is crucial when selling gold to a smelter, so the provenance of the ore remains important. The smelter may wish to carry out an audit to verify the origin of the ore, so GSM must perform appropriate due diligence on suppliers to ensure they operate lawfully and are free from any negative impacts.

## **Technical partner**

Sutton Consulting International is part of the diversified Sutton Global Group and is involved in the mineral processing industry. Sutton provides mining and exploration management advisory, process design services, manufacturing of medium-scale process plants, supply of skilled personnel, contract mining and process management, and commodity trading.

The business has a tremendous track record of helping many companies with the design, manufacture, or optimisation of existing mines and processing facilities. Sutton also supplies skilled labour and provides yellow fleet management and repair.

Sutton has installed and operated more than 30 plants in Africa, but some of its partner companies have hundreds of plants in operation. Sutton prides itself on being the only one to offer complete manufacturing, installation, and operation services. Some of Sutton's Original Equipment Manufacturers (OEMs) have 200 plants across Africa.

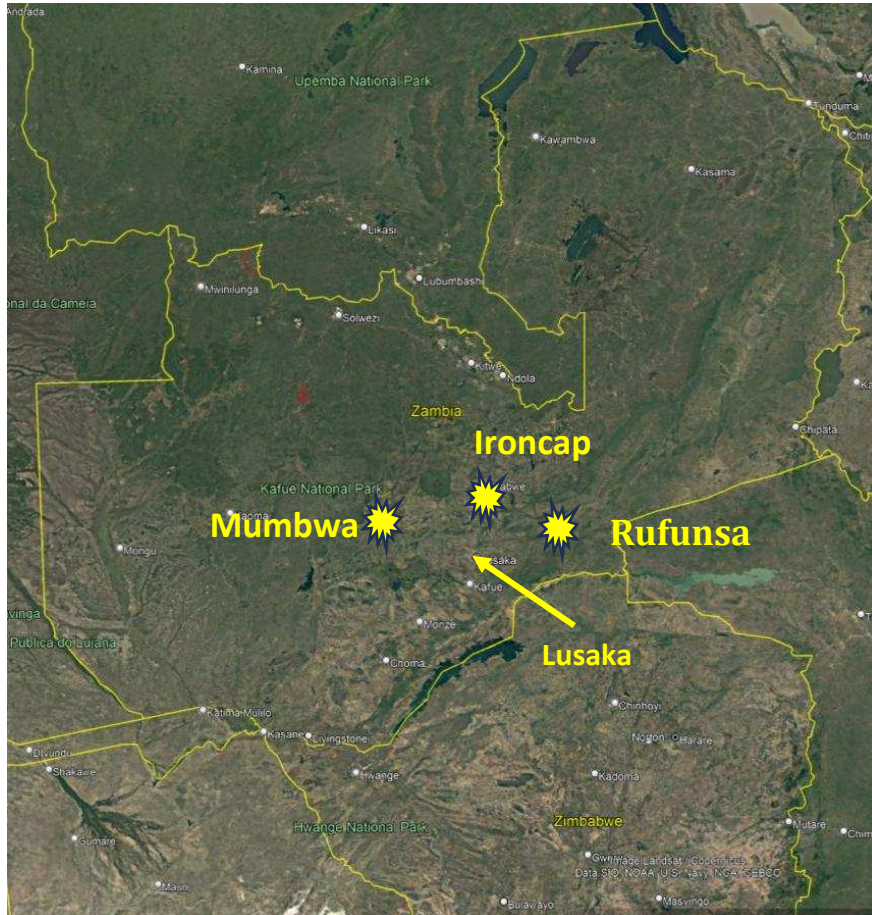
Sutton offers worldwide comprehensive management and business consulting, investments, and project development services. The company has global interests and investments in mining, exploration, processing, technical services, environmental technologies, commodity trading and broking, and healthcare, with offices in Lisbon, Tel Aviv, London, Ghana, Rwanda, Uganda, Zambia, Zimbabwe, and South Africa.

Goldplat (AIM:GPL) Business development in the Americas  
Mukuba Resources (TSX-V:MKU) Copper exploration in Zambia  
Aurigin Resources: Gold exploration in Tanzania & Ethiopia  
Eurotin Inc. provides processing & mining consulting in Spain  
African Clean Energy Solutions Ltd. Business development consulting on the African continent  
SVG Limited, Gold processing & refining in Ghana  
Chariot Oil and Gas (AIM:CHAR) UK-based oil & gas explorer  
Piran Resources Ltd, UK-based tin producer Rwanda  
Rainbow Minerals (LSE:RBW), UK, produces Rare Earth elements in Burundi. Investor  
Petra Diamonds (LSE:PDL) Quoted diamond producer  
YMG (private), Gold producer in Ethiopia  
Akobo Minerals (XOSL:AKOBO), Gold producer in Ethiopia  
Uganda, Gold supply, mining and processing  
Guinea, Gold supply  
Zimbabwe, Managing gold projects in Mberengwa, Kwekwe, Kadoma, Banket & Bulawayo  
Zambia, Gold and copper exploration and trading

*Sutton Consulting International's list of current and past clients and investments in the natural resources and renewables sectors. Source: Company.*

## Project development

GSM is starting by establishing three joint ventures at sites in Zambia: VCFD Rufunsa, Mumbwa Gold (formerly known as Golden Cheetah), and Iron Cap. The total cost of the three process plants and related costs will be approximately US\$3 million, which is expected to lead to attributable gold production of over 10k oz per year once all are in operation



*The initial gold processing JVs will be in Zambia. Source: Company*

The company has a robust pipeline to support ongoing growth. GSM has potential additional ventures in Kenya, Ghana, Zimbabwe, and Zambia. The start-up capital expenditure for these extra toll processing plants is expected to be funded by internally generated cash flow as it begins to accumulate in year four (2028). Overall, the turnover and profit figures are likely to be similar to those of the initial JVs.

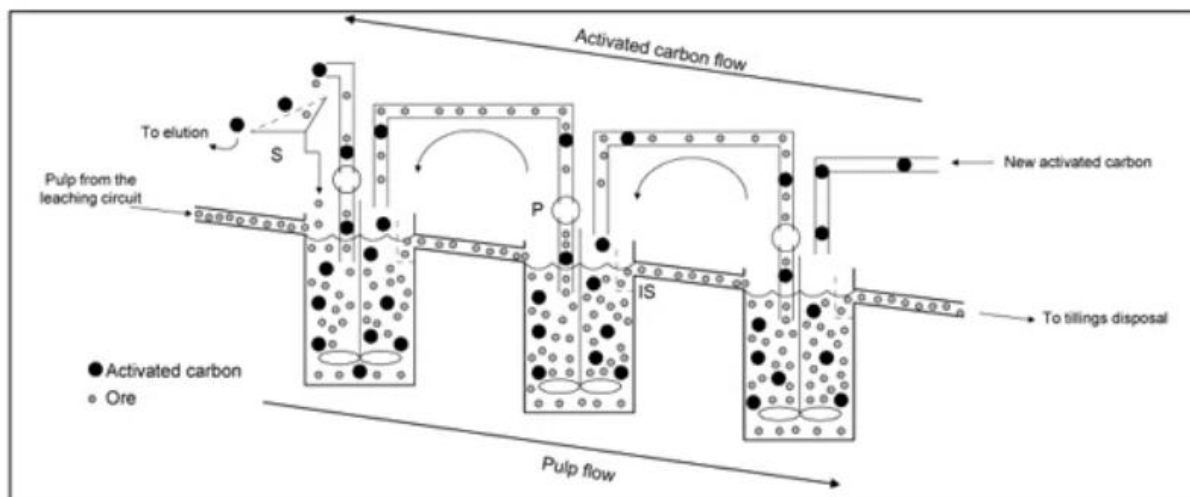
First and foremost, GSM was established as a gold processing and trading company. However, with each joint venture project located in an area with significant artisanal gold mining activity, the company intends to directly acquire exploration licences neighbouring its sites, which have good prospects for gold.

Local joint venture partners are being selected carefully because there are many potential mining cooperatives to collaborate with. The chosen local partners must have established connections with local governments and tribal leaders since most artisanal miners belong to tribes. It is vital to secure an agreement with the local chief, who will be interested in the JV partner. Competitors for artisanal gold production are typically small Chinese or North African buyers.

## Processing plant

The initial processing plant at Rufunsa will utilise a relatively low-cost gravity system to start the project. Following this initial phase, GSM plans to invest between US\$1.5 million and 2.5 million in each small-scale crushing, milling, and Carbon-in-Leach (CIL) processing plant. CIL plants are standard setups used for extracting gold from ore. They involve the simultaneous leaching and absorption of gold particles into a cyanide solution, then their absorption into activated carbon.

Cyanide is the reagent used to leach gold. During the process, pulp moves through several agitated tanks where sodium cyanide and oxygen are added to dissolve the gold into the solution. In the absorption stage, the solutions pass through multiple agitated tanks with activated carbon, where the gold is absorbed into the carbon.



*Schematic diagram of a CIL plant with three tanks showing the interstate screen (IS), the screen at the exit of the first tank (S) and the carbon transfer pumps (P). Source: 911 Metallurgist*

The plants take 4-5 months to manufacture in South Africa, plus one month for installation, after which cash flow is expected within two weeks. Therefore, the process from ordering the plant to gold production takes approximately six months. The necessary licences are either already in place or have been applied for. These licences include mining, environmental, and processing, with the licences for IronCap granted and those for Mumbwa being applied for. All licences are expected to be granted during the delivery period of the plants.

Everything in the business model is well-proven and relatively straightforward. The JV partners send their trucks out to collect the ore, then make a run and perform a clean-up (purge). This ensures the integrity of each individual delivery for customer satisfaction. Each operation will be managed by Sutton, who will be paid US\$30,000 per month per plant for the larger toll processing facilities. Sutton will also be incentivised by being a key shareholder in GMS.

## Growth plan

With three gold toll processing operations planned in Zambia, and potential for a further two in the pipeline, the company seems set for rapid growth in its early years, projecting revenues exceeding US\$35 million annually. The board believes that at this scale, with operations spread across several African countries, they will stay under the radar and not attract excessive attention. The company clearly sees the next step as moving into gold mining by gradually securing its own mining licences. GSM has gained increasing knowledge of the operational areas and local geology through exploration and strategic acquisition of mining licences where appropriate. The company is aware of where artisanal miners produce significant amounts of gold and plans to use this information as a basis to further improve the economics of their operations.

GSM's involvement in gold mining across Africa is expected to greatly benefit artisanal miners. For example, the first project in Zambia is situated in an area where about 1,000 miners operate, including women and children, and the mining process is dangerous. The joint-venture operations should help improve gold recovery rates, reduce environmental damage, eliminate risky practices, and ensure proper licences and reporting are maintained; additionally, local workers will receive fair payment. This development is vital for governments in African countries aiming to regulate these impoverished regions. It is also very important for the tribes, as GSM's arrival promises to bring education and medical services to the community.

### **Project 1 – Rufunsa Gold Project, Zambia**

GSM has established Mukunka Mining Limited, which is a 70:30 joint venture with Veterans' Commodities For Development (VCFD), a Canadian group led by Dave Schaffer, who is married to Princess Agnes Banda, the granddaughter of the local lady Chief. Princess Agnes is being granted a government mining licence for a substantial area in the Rufunsa District, located in Lusaka Province, Zambia.

Zambia's Ministry of Finance has chosen Rufunsa as one of the pilot locations for the country's new formalised gold marketing centres. This initiative forms part of a national strategy to regulate gold trading, curb illegal mining, and boost revenue. The selection of Rufunsa as a pilot site indicates that the government views it as a key gold-producing region with considerable untapped potential.

VCFD is a veteran-focused company with mining and exploration licences in the D.R. Congo, planning to expand into other African countries soon. VCFD aims to supply ethically sourced and mined high-value minerals and other commodities to retail markets worldwide. The company is led by its directors, Dave Schaffer and Dr. Donald Passey. Dave has spent 16 years working on small-scale mining in Africa, particularly in alluvial deposits, while Dr. Donald is a respected psychiatrist. Mukunka Mining has been granted the exclusive rights to use Princess Agnes' Mining License.

GSM plans to establish a pilot plant using South African EXTRACT-TEC equipment on the Royal Establishment gold claims. The project is a socio-economic initiative aimed at supporting the impoverished local artisanal community (around 350 people) and creating the first processing plant in GSM's portfolio, facilitating rapid cash flow.



*Artisanal miners chasing gold veins in Royal Establishment gold property at Rufunsa. Source: Company*

Plants are modular and vary in size, but the plan is to start with a capacity of up to 10 tonnes per hour. This can increase rapidly, and there is an expectation of healthy cash balances by the end of the first quarter. The capital budget for the Rufunsa project is £500,000, which includes a jaw crusher to pre-crush run-of-mine ore, a gravity separator, necessary infrastructure, opex contingency, and local payroll. The remaining £500,000 to be raised will be allocated for operating costs, contingencies, and local payroll as the plant and supply process are scaled up.

In partnership with The Royal Establishment, artisanal miners will be employed on the payroll, significantly increasing their current income to extract visible veins and load the gold ore onto trucks, which then transport it to the processing plant. Internal estimates indicate that processing 500g of gold daily, or 15kg per month, is achievable. At that level of production, the payback period for the initial £500,000 investment is estimated at 3-4 months, and more plants can be added as expertise develops.

For the company's initial gold project, the team has opted to use a relatively inexpensive mobile gravity plant. The equipment is simple and can be on site within three months. GSM plans for the plant to be installed and start generating cash in Q1 2026. The plants are durable, proven, and straightforward gravity units designed to recover free gold. Gold will be sourced from the company's own mining operation as well as from run-of-mine material produced by local artisanal miners, who are mostly members or subjects of the Mumpanshya Futwe Royal Community.

At VCFD Rufunsa, the gold is found in high-grade narrow veins. The local artisanal miners are skilled at locating these veins and extracting high-quality ore. Besides obtaining 100% of their own gold, there is a 50:50 split of gold produced between GSM and the locals who supply additional ore.



*EXTRAC-TEC HPC-30 fine gold recovery system. Source: EXTRAC-TEC*

Management will be using the EXTRAC-TEC range of gravity recovery systems, which are modular and come in various sizes, offering significant potential for expansion. These systems are top-quality and affordable.

The EXTRAC-TEC HPC-30 Heavy Particle Concentrator is among the most advanced gravity recovery systems available for fine gold. It is an ideal solution for small-scale and start-up mining operations; the HPC-30 recovers fine and flour gold particles that are often lost by other machines. It seems that this system captures 90-95% of the free gold, with more difficult ore sent to tailings, leaving room for a more sophisticated, larger CIL plant if the partner chooses to install one later.

There are no harmful chemicals required, which helps local people eliminate the use of mercury in their gold processing. The headquarters is located within the Palace compound, improving the safety and security of the operation. Moreover, the prestige and respect associated with the Palace and the chieftainship encourage miners to join the cooperative that VCFD is establishing.

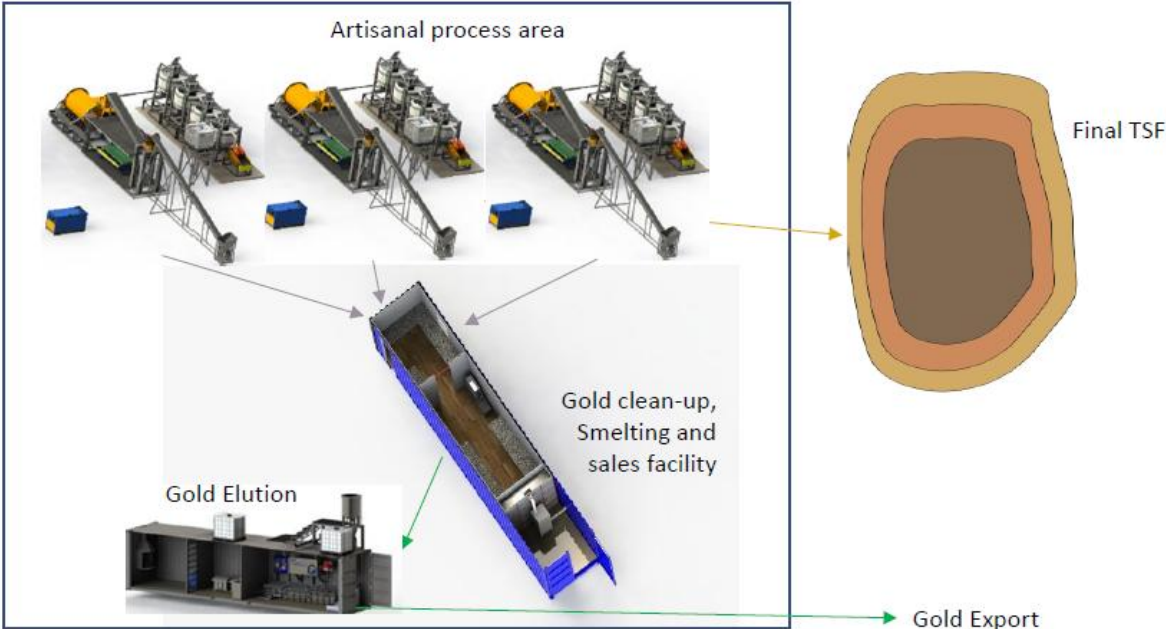
## Project 2 – Mumbwa Gold Mining, Zambia

The Mumbwa Gold Mining Project is based in the Mumbwa region of Zambia, an area rich in resources and known for gold production, with several toll treatment plants mostly operated by Chinese companies. Previously called the Golden Cheetah Gold Mining Project, the management team now aims to develop a more promising operation at this licence area in Mumbwa with new partners, leading to the name change of the project. The Zambian government has designated Mumbwa District as a strategic gold reserve zone.

Recently, the government acquired a gold processing plant in the area to oversee production and prevent smuggling. Officials have suggested that Mumbwa could directly increase Zambia’s central bank gold reserves. According to the Zambia Business Times, a recent mineral exploration report valued the Mumbwa gold resource at over US\$5 billion, highlighting the government’s high expectations for its economic significance.

GSM’s plant will be located in the centre of this region, supplying an estimated 15-17kg of artisanal gold production to Lusaka each week once operating at full capacity. This will enable local miners to deliver ore and help keep transportation costs low. It is a development-ready start-up project, as agreements have been signed with local Chiefs and communities. The JV partners have already begun completing an Environmental Impact Study to obtain Operations Approval from the local Environmental Management Agency. Additionally, the operator Sutton will need to apply for a Mineral Dealer Licence.

Under the proposed management contract, Sutton will also establish a skilled, efficient, and experienced management team. In South Africa, the processing plant will be built and later shipped to Zambia for installation and commissioning. The plant design features three lines of jaw crushers, attrition mills, and gravity concentrators operating at 3 tph, along with a smelting room, a clean-up room, and an evaluation and purchase area within a secure zone. The investment needed for the plant and related infrastructure is US\$2.5 million.



Mumbwa Tolling Plant. Source: Company

### **Project 3 - Iron Cap Mining, Zambia**

The mine is located in Kabwe, Kapiri Mposhi district. It was historically operated and produced approximately 38koz before operations were halted due to the Zambian nationalisation of mines. Low gold prices, poor management, and a lack of financial resources hindered several attempts to restart the mine. Most recently, the Korean Government provided a grant, and exploration has continued. Funds are now required to develop the mine.

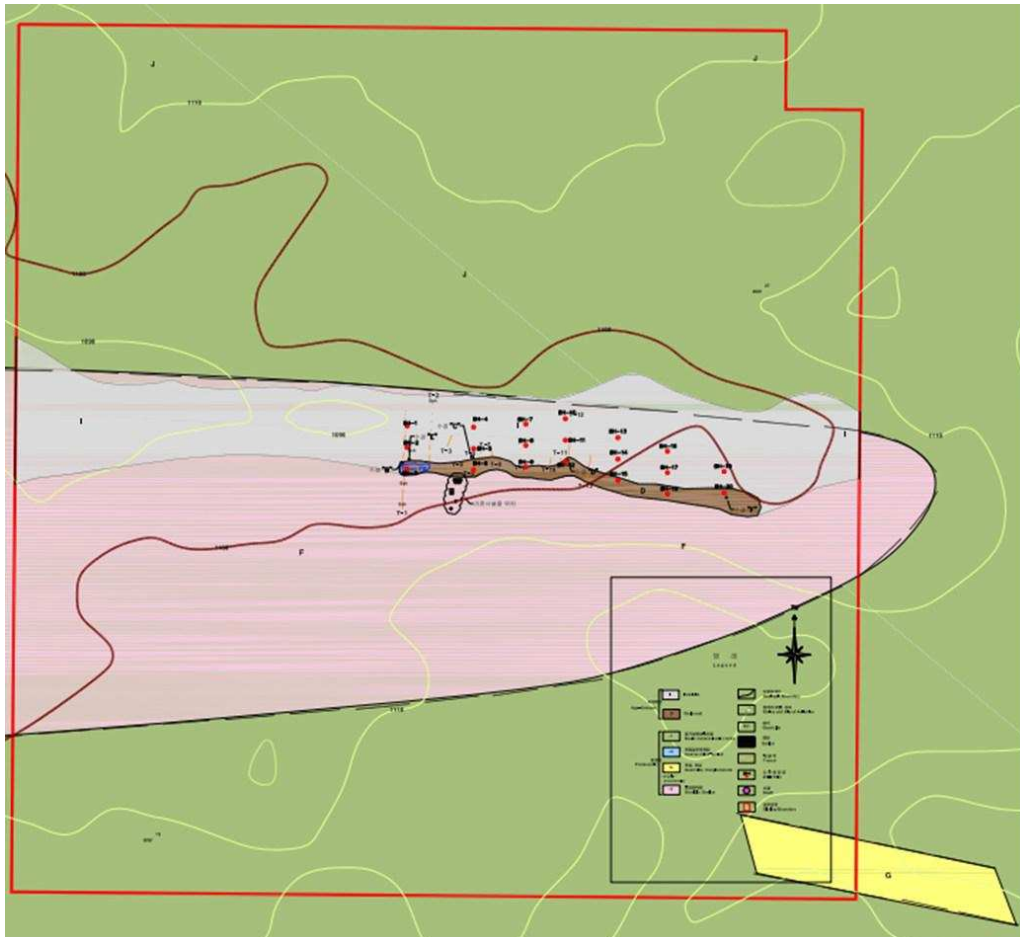
The historical development undertaken by Rhodesian Anglo American involved trenching and shaft sinking. Trenching followed the deposit along a strike length of 1.3 km. One shaft intersected the gold reef, which averaged 3.7 g/t gold at a depth of 14 m. Meanwhile, a second shaft was sunk to a depth of 16 m and uncovered blocks of iron-stained quartzite gossan and iron-stained clay between 13.5 and 15.8 m deep. The reef, approximately 1.2 m wide, has been exposed at the surface due to weathering and dips to the north. The two best among five historic grab samples averaged 29.2 g/t and 6.2 g/t gold.

This work resulted in a historic Mineral Resource Estimate of 242,880 tonnes at 1.555g/t gold, amounting to 13,322 ounces of gold, which only covers part of the Iron Cap Mine area. There is no record of the depth below the surface of this resource, but the strike length is approximately 880 metres, with an average thickness of 20 metres and a width of 4.6 metres. Historical records indicate that 189 ounces of gold were mined at a grade of 2.2g/t during the 1953-55 period.

The South Korean Government designated the Iron Cap Gold Mine as an “Overseas Resource Development Project under the National Treasury Assistance Project” in collaboration with GTP Korea Co Ltd. In 2011, the overseas investment condition survey was carried out alongside an investment condition survey report by the Korea Mineral Resource Corporation (KORES). A report on the exploration results by Hankuk Geo Engineering, published in 2013, regarded the Iron Cap Gold Mine as having high potential for gold deposits.

## Iron Cap exploration

The Kabwe region is recognised for its gold resources and production. Open pits and sedimentation tanks from previous mining activities in this area illustrate the extent of gold mining in Zambia. The distribution of rocks in the Iron Cap Gold Mine region is broadly classified into gneiss, gold metallogenic belt, duricrust, itabirite, and schist. Resistivity surveys and IP exploration results have confirmed a high likelihood of reserves of all ore types within the licence area.



*Iron Cap proposed drilling programme. Source: Company*

Rock formation	Explanation	Width	Extension	Other info
Gneiss	Banded metamorphic rock	>100m	>2km	
Duricrust layer	Hard layer on or near the surface	20 – 50m	c.500m	Gold 15g/t
Itabirite layer	Foliated, metamorphosed oxide-facies iron formation, also called banded-quartz hematite or hematite schist	c.100m	c.500m	
Schist	Medium-grained metamorphic rock	>100m	>2km	

*Rock formation of the gold mine region observed from north to south from top to bottom.  
Source: Company and Optimo Research*

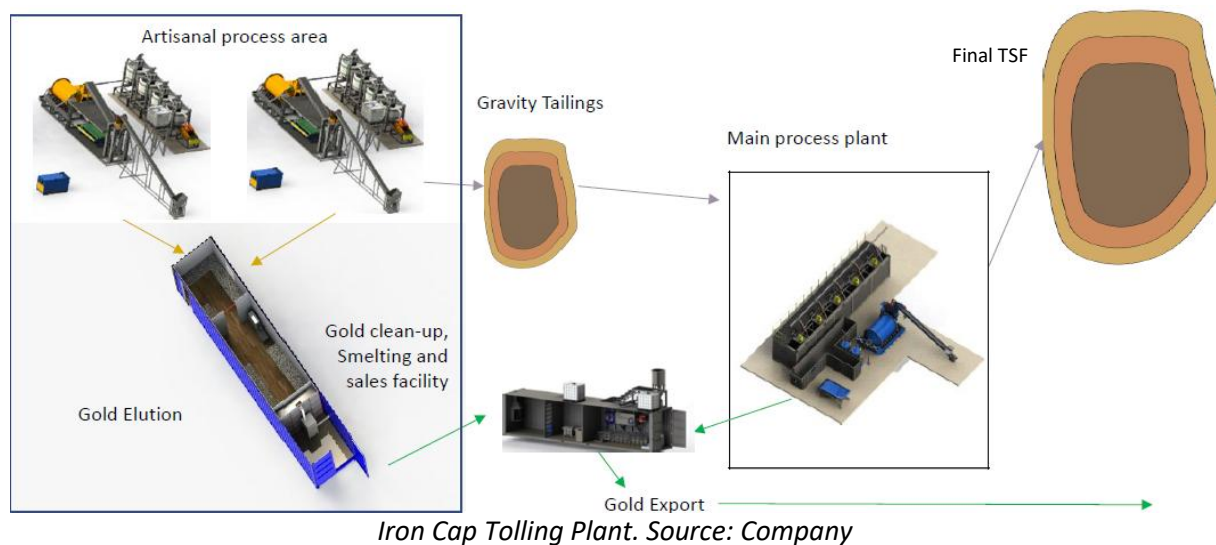
Furthermore, these geophysical surveys show that the Itabirite layer is located centrally with a width exceeding 100m, and the main east-to-west traverse stretching 2km crosses the centre of the mining area. Given that the depth of mining in nearby mines ranges from 100 to 200m, six boreholes will be drilled to a depth of 150m each, spaced 50m apart north to south and 100m apart east to west. This approach was deemed suitable for the local mining conditions.

## Tolling operation

The project seems ready for development, as the Iron Cap gold mine is converting its exploration licence to a small scale mining licence. A processing facility can be quickly established and substantial exploration work has been carried out. In February 2022, the Zambian Ministry of Mines and Mineral Development issued a licence to Gold Tungsten Progress Africa Limited (GTP). Previously, the Iron Cap Gold Mine was operated by KB and K Investment Limited, which faced financial difficulties, further worsened by an illegal tunnel collapse.

GSM's partner, GTP Africa Limited, is set to obtain its mine development licence after finishing its drilling project and submitting a report confirming a compliant resource. An Environmental Project Brief has been done, and Iron Cap will be applying for operational approval from the local Environmental Management Agency. The project will be planned around a 100 tpd tolling operation for artisanal ores and, in the second phase, a 120 tpd mining operation. The total capital required is US\$2.5 million for the CIL plant and related infrastructure in Phase 1, and US\$0.5 million for Phase 2.

US\$70,000 will be allocated to an RC drilling programme in 2026 to better understand the resource before investing in plant and equipment. Currently, a desktop study is underway to review existing data and plan this drilling programme. Additional funds may be spent on further drilling if the resource justifies it.



Similar to the Mumbwa project, the toll processing JV at Iron Cap will enable ASM communities to bring mined ore to the facility, where it will be processed in a controlled, secure environment using gravity methods. Artisanal miners will be able to sell their product on-site, thereby removing the risk associated with transportation. The residue and tailings will be disposed of in a licensed tailings storage facility (TSF). There are long-term plans to activate a tailings reprocessing plant to reprocess this valuable material.

## Strategy for Growth

The gold processing and trading vehicle GSM is being developed at an ideal time, just as the yellow metal has recently reached all-time highs. Currently, a strong combination of factors is pushing gold even higher. Gold production is declining and central banks are rapidly increasing their gold reserves. Additionally, government debts are at record levels, fiscal deficits are unsustainably high, and we are in an inflationary period. Moreover, there is a scarcity of new gold discoveries, and major miners are adopting a cautious approach to capital. Today, investors are monitoring macroeconomic imbalances, including debt issues reminiscent of the 1940s, inflation fears from the 1970s, and asset valuation imbalances seen in the 1920s and 1980s.

It's little surprise that some respected commentators suggest the world is experiencing the third gold cycle. The first gold cycle (1970-80) was driven by declining gold production, an inflationary environment, central banks accumulating gold, and a lack of new discoveries. The second gold cycle (2000–2009) involved falling gold production, the gold-to-S&P 500 ratio reaching historic lows, and China increasing commodity demand. History seems to be repeating itself. The first two gold cycles saw the gold price increase by 1,800% and 600%, respectively, and one wonders what the third cycle might bring.

Willie West is the co-founder of GSM and has been involved in its development since June 2023. Recently, he made 15 visits to Africa to identify joint-venture partners and conduct initial legal, infrastructure, and site assessments. He has a 40-year career in the City, mainly focused on financing resource enterprises. Since 2003, he has funded 60 resource development companies. While promoters in the mining sector may be willing to accept lead times of 8 to 10 years from exploration to production, GSM aims for a much shorter timeline. Investors are increasingly disillusioned by small-cap resource stocks that repeatedly raise new capital at lower share prices. In this context, GSM is on track to become cash flow positive within six months of receiving funds.

The level of ASM gold production is substantial, with the World Gold Council estimating it at 20% of global output. However, it could be considerably higher as much of it remains unreported, preventing governments from collecting taxes. In some African countries, ASM production exceeds this figure significantly, such as 38% in Ghana. GSM aims to establish its toll processing plants as joint-venture projects in regions that are hotspots for artisanal gold mining across Africa.

The main advantage of gold is that it can be processed efficiently and cost-effectively on a small scale with affordable capital expenditure. Unlike copper, nickel, iron, lead, and zinc, it does not require extensive operations. Exploration mainly involves identifying where gold deposits are located, a task already accomplished by artisanal miners. Moving forward, GSM will be happy to conduct some exploration and development as it gains a better understanding of the potential near its processing facilities. Currently, the tolling operation at VCFD Rufunsa has been fully financed. The company aims to raise around £750,000 at 5p pre-IPO to fund further development of its processing business. The plan is for GSM to finance additional growth (projects 2 and 3) mainly through cash flow.

GSM follows a proven business model that is effective. Numerous examples demonstrate this low-tech approach's success, as these small gold processing plants are straightforward to operate and set up, and they have been successfully established hundreds of times across Africa in recent years. The company aims to create a network of tolling plants by forming joint ventures with reputable local artisanal miners to source ore for processing. After deducting processing costs, the partners will share the proceeds, with GSM taking the majority. The company will keep the tailings, which contain some remaining grade ore that can be reprocessed later – but that is a story for another day. The risks lie not in the resources but in execution.



GSM has well-organised initiatives to launch three initial projects in Zambia. These appear to be promising ventures, and the first (Rufunsa) could be operational imminently. This will be followed by Mumbwa and Iron Cap, where artisanal miners could quickly bring in ore grading 3 or 4g/t gold, with the spoils shared. This is equivalent to 1.5-2g/t Run of Mine (ROM) gold for GSM, without the need to build or operate a mine. The conservative cash flow in the business plan — which is not the worst case but not highly profitable either — indicates sustainable, compelling returns. With just these first three projects, the business plan foresees the company achieving 10koz of attributable gold production annually.

This is our latest update, which addresses the potential for better returns to early investors in GSM, offered by management pursuing growth through more organically generated funds. The board has quickly recognised the value of the VCFD Rufunsa project, which not only provides the opportunity to enter production at low cost but could also generate substantial early cash flow that might fund the larger schemes planned at Mumbwa and Iron Cap. The gravity plant to be installed at VCFD Rufunsa might not have all the features of a CIL plant. Still, given such a rich, high-grade gold project, a decent amount of early cash flow could be generated to start the company on a lean basis. All of this means less dilution for early investors. In any case, the rejected material can be stockpiled and processed through a CIL plant in the future as the company's finances improve.

There is no doubt that establishing a relationship with VCFD could benefit the company in many ways. VCFD has a network of around 4,600 registered Canadian Veterans, many of whom could potentially participate in VCFD's charitable work in Africa. The board has quickly recognised that this would offer a readily available pool of investors and supporters for the listing of GSM in Canada, where detailed plans are in place to apply for such a listing once the first plant becomes operational.

Apart from the three projects GSM will initially pursue, it has additional projects in development for which Letters of Intent have already been signed. Ghana is a top priority because the country is renowned for its high-grade gold deposits, which are among the richest gold provinces in Africa and have significant ASM production. Additionally, Ben Smit of Sutton Group has extensive knowledge of such small-scale operations across Africa, many of which his business has established.

GSM has been developed with the dual aim of delivering substantial dividends and establishing itself as a growth stock early on. The strategy involves adopting an aggressive dividend policy. A Canadian listing is likely, which could coincide with the initial gold production. The management team plans to list the company quickly based on its own merits rather than pursuing a Reverse Takeover transaction (RTO), which can be problematic since there is no such thing as a clean shell. Demonstrating the viability of the business model should facilitate the listing process. The success of the first plant is expected to have addressed most concerns about the business model.

The listing document will show that the management team has all the essential elements in place for a transformation as the company enters a sustained phase of rapid growth. Even at this early stage, it looks like the management team has a clear strategy to achieve high profitability quickly, from relatively small gold production levels. GSM presents a compelling opportunity for capital growth in our view, with a healthy dividend expected.

## **Risks**

### **Geological risks**

A series of technical risk factors concern the level of understanding of the geology of the project areas, the areas being targeted, and the distribution and magnitude of the indicators identified in exploration work.

### **Resource risks**

All resource estimations are an expression of the judgement based on knowledge, experience and industry practice. Estimates valid when initially determined may change significantly when new information or techniques become available. Also, resource estimates are imprecise and depend somewhat on interpretations, which may prove inaccurate.

### **Political risk**

Companies operating in Africa face political risks. The resources industry is arguably the most susceptible to political risks, mainly due to its importance to the economies of African countries.

### **Gold price risks**

Gold prices are highly cyclical, and changes in the price per ounce could negatively or positively impact the valuation of the company's projects and revenue from metals sales.

### **Execution risk**

The company's main risk in executing the strategy relates to its ability to obtain the necessary licences and permits to operate. Besides securing a guaranteed supply of ore from artisanal miners and processing the material cost-effectively, an increase in operational costs will reduce profitability, free cash flow, and the funds available for project dividend distribution. The strong association with Sutton Group and VCFD significantly reduces the execution risk.

### **Security risk**

Being highly visible in generating substantial wealth in poor African countries means that security is paramount. The involvement of Sutton Group and VCFD in the management of these projects should ensure the gold remains in safe hands until it is sold.

### **Exchange rate risks**

Movements in the value of currencies will affect the company's accounts when translating African currencies and US dollars into British pounds. Fluctuations in the value of the African currencies and the US dollar against the pound may affect the valuation the UK stock market awards the company.

### **Future funds**

The market for raising funds for small-cap companies looks to have improved from the worse conditions a couple of years ago. However, the ratcheting political tensions concerning Ukraine, Israel, and Gaza, which have escalated to affect a wider region, have made the market turn its back on risky plays. This has led to several recent fundraisings in the resources sector seeing share prices undermined by incoming investors demanding 30-50% discounts to provide the necessary capital.

## Board of Directors

### Haruko Fukuda OBE – Chairman

Haruko has more than 40 years' experience in the financial services, automotive and mining sectors, and currently also holds a number of Non-Executive Directorships, including Investec Plc, and is currently an Advisor to Braj Binani Group of India, a diversified industrial group. She also holds a number of non-executive directorships of investment trusts. Haruko served on several international boards, including as Vice Chairman of Nikko Europe Plc, Director and CEO of the World Gold Council, senior advisor at Lazard, and Director of AB Volvo. She also served on the International Advisory Board of METRO Cash & Carry and was a Partner in James Capel. She has strong ties with Japan and was awarded an OBE in 2000 for her services to UK-Japanese relations. Haruka was also Chairman of the Japan Society from 1995-2000 and a trustee of the Mitsubishi UFJ Trust Oxford Foundation.

### Christian West – Executive Director

Christian is the founder and CEO of a US\$20 million copper toll processing company operating in the Philippines, which has a crushing, sorting and processing facility with a capacity of 16,000tpd. He has over 25 years of experience in the capital markets, having worked as a fund manager and broker since 1998. Christian has founded several companies specialising in frontier markets and has been a Director of a number of mining and natural resource companies both in the public and private sectors, including Anglo-African Minerals (gold, bauxite, iron ore, copper and diamond exploration in the Republic of Guinea) where he joined the board in 2013. Christian is a director of RDP Limited, a private investment capital group specialising in the natural resource sector.

### Eric Tembo – Non-Executive Director

Eric Tembo is a Zambian mining executive and Principal behind Iron Cap Mining and a Director of Sutton Consulting Zambia under the Sutton Global Group of Companies. He oversees mining acquisitions, project development, and corporate strategy across gold and copper assets in Zambia. His work focuses on structuring investment partnerships, building toll-processing projects, and strengthening artisanal-to-industrial supply chains. Eric is also involved in capital raising, market analysis, and regional mining services expansion.

### Dr Elena Clarici – Non-Executive Director

Elena is a co-founder of Electrum Discovery Corp. During her 25+ years of mining experience, she has held senior management positions with a number of junior explorers, development companies and metals and mining financial institutions in the City of London. In addition to being the CEO of Electrum Discovery Corp., which was recently nominated as one of 8 worldwide exploration companies to be nominated by BHP to its XPIOR acceleratory programme.

Elena is also the Executive Chairman of Pan Pacific Resource Investments, a private venture capital firm focused on critical metals and energy transition. Before that, she was the Chief Investment Officer at OCIM, a precious-metals-focused investment firm, and before that, Elena was responsible for the mining investments of Meridian Equity Partners following her role as a portfolio co-manager of the Scipion Mining and Resources Fund. She is an Independent Director to several private and public international mining companies, most recently with TSX-V-listed silver producer Aya Gold & Silver Inc. (TSXV:AYA). She is a Serbian national and has obtained a B.Eng. in Mining Engineering from the University of Belgrade. Elena also has a PhD in Application of Artificial Intelligence in Mining and Environmental Engineering from the Royal School of Mines, Imperial College, London.

### **Simon Purkiss – Non-Executive Director**

Simon is a metallurgical engineer with experience in developing projects in South Africa, production in base metals and PGM's, and developing and selling new metallurgical processes in the resource industry. He was a founder and Managing Director of European Nickel PLC, which developed to full bankable levels, the heap leaching of nickel laterites. Prior to his time with ENK, Simon worked in Russia and South Africa, where he was the Business Development Manager for Billiton and marketed the Billiton bacterial heap leaching process.

### **Nicholas Gregory – Non-Executive Director**

Nico is a trained software engineer and technology thought leader. From 2016 to 2024, he served as the CEO of CommerceBlock and was a board member of a NASDAQ-listed company. His technical expertise includes programming across multiple languages, building compute grids, machine learning, and Bitcoin development. Nico has held management roles at Wall Street banks and founded an asset management fund.

## **Founder & Officers**

### **William West – Founder**

Willie went to Cambridge and then worked at a merchant bank in Australia for two years. He moved back to London, where he was a 40% shareholder in Potts West Turnbull, which Pru Bache eventually acquired. Willie went on to acquire GW Joynson (London's oldest commodity broker and member of all exchanges, including the LME and IPE, together with the soft complexes), which was also successfully sold. He set up the stockbroker Durlacher West, which morphed into Durlacher, and in the dot-com era, this company saw astronomical growth, sufficient to take the stock into the FTSE100 index, had the sell-off not happened. The past 25 years have seen him involved in the finance of more than 60 operations, which have included more than seven that have exceeded a US\$1 billion valuation.

### **David Hutchins – Consultant**

David is a former specialist natural resources fund manager with 40 years of experience in the corporate mining and commodities sectors. He has held various executive roles for both listed and private companies. He is a long-standing member of the FTSE Gold Mines Index Committee and is currently a Non-Executive Director of AIM-listed Oracle Power plc and Wishbone Gold plc.

## Forecasts

We update coverage of GSM with forecasts for the financial years ending 31<sup>st</sup> December 2025, 2026, 2027, and 2028. For 2025, it is assumed that initial funds will be raised to order the first plant to be installed at VCFD Rufunsa, but no revenue is forecast for 2025. Administration costs are expected to be reasonable, with stock options primarily incentivising the board.

Year End 31 December (£'000s)	FY2025e	FY 2026e	FY 2027e	FY 2028e
Revenue	-	4,715	19,538	25,731
Cost of sales	-	(1,199)	(4,967)	(6,541)
Gross profit	-	3,517	14,571	19,189
Administration expenses	(250)	(500)	(500)	(500)
Exceptional item	-	20	-	1,850
<b>Operating profit/(loss) before tax</b>	<b>(250)</b>	<b>3,037</b>	<b>14,071</b>	<b>20,539</b>
Taxation	-	(1,055)	(4,371)	(5,757)
<b>Profit/(loss) for the year</b>	<b>(250)</b>	<b>1,982</b>	<b>9,699</b>	<b>14,782</b>
Profit/(loss) attributable to owners of the Company	(250)	1,099	7,386	11,499
Profit attributable to non-controlling interests	-	883	2,314	3,283
<b>Total</b>	<b>(250)</b>	<b>1,982</b>	<b>9,699</b>	<b>14,782</b>
Basic and diluted earnings/(loss) per share (pence)	(0.52)	1.33	8.65	13.47
Weighted average number of shares	48,373,186	82,887,580	85,353,333	85,353,333
Total shares plus options and warrants	75,353,333	85,353,333	85,353,333	85,353,333

Source: Company/Optimo Research

For 2026, production at VCFD Rufunsa is expected to commence in Q1, reaching its nameplate capacity in Q2. During this period, increased cash flow from VCFD Rufunsa, combined with £1 million from a placement related to an anticipated IPO, is expected to fund a US\$2.5 million investment in a CIL plant and associated infrastructure at Mumbwa, where the plant is expected to produce its first gold in Q4. The exceptional items of £0.0 million include the net repayment of £0.420 million (US\$0.55 million) of loans to the VCFD Rufunsa JV and estimated costs of £0.4 million for the listing. The pre-tax profit is forecast at £3.037 million, with £1.055 million of tax, resulting in an annual profit of £1.982 million. The profit attributable to the company is £1.099 million, equating to earnings per share of 1.33p.

For 2027, we assume that production continues at the nameplate capacity at VCFD Rufunsa, and in Q1, production at Mumbwa also reaches its nameplate capacity. In Q4, the first gold is expected to be produced at Iron Cap, with it reaching nameplate capacity by the year-end. This results in a pre-tax profit of £14.071 million and a profit for the year of £9.699 million. The profit attributable to the company is £7.386 million, resulting in earnings per share of 8.65p.

For 2028, all three joint-venture projects are expected to operate at their nameplate capacity throughout the entire year. There is £1.85 million in exceptional items related to the repayment of the US\$2.5 million loan to the Mumbwa JV. The pre-tax profit is estimated at £20.539 million, with a profit for the year of £14.782 million. The profit attributable to the company is £11.499 million, resulting in earnings per share of 13.47p.

# Valuation

GSM is rapidly progressing towards gold production through a planned series of investments in small-scale gold toll processing facilities across African countries. These facilities have the potential to significantly benefit many artisanal miners and generate substantial profits for investors.. The board believes operating costs should be in the region of \$1,200-1,600 per ounce. At the current gold price of approximately US\$4,000, this implies a margin of US\$2,800 per ounce, resulting in a gross profit margin of over 60%, with Sutton’s investment dashboard projecting an IRR of over 100% over five years.



Gold price chart for the past 10 years. Source: www.gold.co.uk



Gold price sensitivity analysis demonstrates that GSM’s consolidated projects (Mumbwa and Iron Cap) are consistently profitable at gold prices down to US\$1,300 per ounce. Source: Sutton.

We have aimed to establish a valuation that the company could achieve once the three initial processing plants are operational, expected by 2027, applying a full tax charge. To develop a robust valuation, we have relied on Sutton Group, which has provided its financial models for Mumbwa and Iron Cap in Zambia.



We have extrapolated data from these financials and applied similar analyses to reflect the current situation. Financial models have been developed for all three projects, and below we outline some of the assumptions in Sutton's analysis, which we have adopted to calculate GSM's net profits. We have employed a similar method for the initial project VCFD Rufunsa.

**Gold price** - In this update, the analysis has been undertaken at a gold price of US\$3,250 per ounce (previously we used US\$2,900/oz). It must be noted that the model uses the LBMA gold price of 99.995% gold, and it is also assumed that the projects will produce 96% purity gold on site, resulting in a gold sales price of 96% of LBMA, which is US\$2,784.

**Production** – At VCFD Rufunsa, we have been guided by the company's management, which has provided us with internal estimates of processing 500 grams of gold per day or 15kg per month at full capacity. For Mumbwa and Iron Cap, we have relied on Sutton's model, which indicates total gravity throughput per hour of 9t and 11t. All these figures have been adjusted for 85% availability, accounting for downtime in purging the circuits and washing down after each batch of ore is processed. The toll processing operations are assumed to run three eight-hour shifts a day because this setup must operate continuously due to the chemical aspect of the process.

**Recovery**—Sutton assumed a 60% recovery rate in the gravity circuit, with a 90% recovery in CIL, suggesting 85-90% overall. A figure of 85% has been used in this analysis of Mumwba and IronCap. GSM plans to install an EXTRAC-TEC HPC-30 Heavy Particle Concentrator at VCFD Rufunsa, which, despite employing only a gravity separation process, the manufacturer claims captures 90–95% of the free gold, which appears feasible with such high-grade gold feedstock. To us, this seems somewhat optimistic, but we believe that the internal guide production figure of 15kg gold per month is conservative, as it relies on a significant reduction in several factors, including tonnage, grade, and recovery.

**Royalty and taxes, etc.** - A 5% royalty figure, 6% for the international sales discount, and 30% corporation tax rate have been used.

GSM's share of gold production is expected to quickly ramp up to in excess of 11koz a year in 2028, which allows revenue, profits, and earnings per share to generate impressive growth. These are highly compelling estimates in our view, but we believe that they are conservative for the following reasons.

Firstly, the business has been valued at US\$3,250 per ounce despite a current gold price exceeding US\$4,000. Secondly, it appears that the grade used could be substantially higher. Mumbwa and Iron Cap are not very close and are not geologically similar, resulting in different grades. We have used average grades of 3.5g/t at both Mumbwa and Iron Cap, as suggested by Sutton. However, artisanal miners typically do not mine anything below 5g/t. Sutton believes that local miners in Zambia probably extract ore with a grade of 5-8g/t, which could offer a significant upside. In other African countries, grades can be considerably higher, which might be an important factor when selecting locations for projects 4 and 5.

Projects	2026	2027	2028
<b>TOTAL GOLD PRODUCTION (ounces)</b>			
VCFD Rufunsa <sup>1</sup>	3,490	3,800	3,800
Mumbwa <sup>2</sup>	500	4,032	4,032
Iron Cap <sup>3</sup>	-	4,350	6,970
<b>GSM's SHARE OF GOLD PRODUCTION (ounces)</b>			
VCFD Rufunsa 35% (70% of 50%)	1,221	1,330	1,330
Mumbwa 50%	250	2,016	2,016
Iron Cap 70%	-	3,045	4,879
GSM's total share of production	1,471	6,391	8,225
<b>GOLDEN SOVEREIGN MINES<sup>4</sup></b>			
Revenue (£m)	4.715	19.538	25.731
Pre-tax (£m)	3.037	14.071	20.539
Attributable profit (£m)	1.099	7.386	11.499
Earnings per share (p)	1.33	8.65	13.47

<sup>1</sup> First gold from VCFD Rufunsa expected in Q4 2025 from pilot plant, with a larger plant going into production in early 2026 with name plate capacity being achieved within 3 months. Following 6 months at full production, the ounces/month are expected to decline as the highest grade gold is exhausted. Out of the total gold production, 50% share goes to local miners, with the remaining 50% shared between the JV partners GSM and VCFD on a 70:30 basis.

<sup>2</sup> First gold from Mumbwa planned for Q4 2026. Gold production is shared between the JV partners on a 50:50 basis.

<sup>3</sup> First gold from Iron Cap is expected in Q2 2027. Gold production is shared between the JV partners on a 70:30 basis in favour of GSM.

<sup>4</sup> Optimo Research's estimates of revenue, pre-tax profits and earnings per share when the estimated results from these three joint venture companies are consolidated into the parent company's P&L accounts

*GSM's share of gold production, revenue and earnings per share from the three gold milling joint venture projects in Zambia. Source: Company and Optimo Research*

## Peer Group Comparisons

Once again, we have relied on peer group comparisons to suggest a realistic market valuation the company could achieve. Additionally, we have focused on what the company might accomplish in 2027. As GSM now plans to seek a listing in Canada rather than the UK, we have identified a more relevant peer group primarily composed of companies providing milling services for local miners. We have chosen to investigate Dynacor Group (TSX:DNG) and Soma Gold (TSXV:SOMA).

Dynacor Group is an industrial ore processing company focused on producing gold from artisanal miners. The company operates the Veta Dorada plant and owns a gold exploration site in Peru, with plans to expand into West Africa and Latin America. In Q1 2025, Dynacor's operations produced 27koz of gold and achieved an 11.2% gross margin on US\$80 million of sales. Clearly, Dynacor is the company that GSM aims to emulate.

Soma Gold is a gold producer holding district-scale property concessions in Antioquia Province, Colombia. The company operates two fully permitted and operational mills with a combined milling capacity of 675 tonnes per day (tpd), strategically situated 15 km apart. It has formalised small artisanal miners to supply high-grade ore. Production was approximately 450 tonnes per day (tpd) in 2024. Soma also possesses a total resource of 526,000 ounces, with 404,000 oz being non-NI 43-101 compliant. The 2024 annual results reported a revenue of C\$89.4 million, EBITDA of C\$33.2 million, and a net income of C\$4.2 million, with a 28% gross margin.

Company	Share price C\$	Market capitalisation		PE	Gross Margin	Annual gold production
		C\$m	US\$m			
Dynacor Group (TSX:DNG)	4.760	199.28	142.34	8.21	11%	118Koz AuEq
Soma Gold (TSXV:SOMA)	1.435	168.28	120.20	14.35	28%	27koz

*Peer group comparisons of companies processing third-party gold ore. Source: Optimo Research*

Examining the range of PE ratios for these two companies and their gross margins, we believe that GSM, as a listed entity on a Canadian stock market, could attain a PE ratio of 6 in 2027. By that time, GSM could be regarded as an outright growth stock with a high gross margin of over 60%, which should justify a premium rating. At a PE of 6, this would imply a valuation of 6 x £7.386 million (2027 attributable profit), amounting to £44.32 million. Assuming there are 85,353,333 shares on a fully diluted basis, this suggests an unrisks target price of 52p.

Our valuation is at risk if GSM is forced to raise additional capital before achieving self-sustaining revenues. The main issue, of course, lies in the listing basis of shares in Canada, which—although not as problematic for early-stage and pre-revenue resource stocks as in the UK market—can sometimes turn into a literal graveyard due to the difficulty of accessing capital on reasonable terms. For companies at the pre-IPO stage, the conditions for raising additional capital may be even more dilutive.

### Pre-new money valuation

There is a common rule of thumb used by mining analysts, among others, which varies slightly from broker to broker. However, generally, professionals tend to utilise the risk ratings and weightings outlined in the table below. We suggest that GSM currently falls between the Scoping Study stage and the Feasibility stage, where we would apply a 67.5% risk to the £44.32 million figure, resulting in a valuation of approximately £14.4 million. Consequently, we believe that the pre-new money valuation of £3.02 million for the current fundraising of £750,000 at 5p presents an appealing discount for investors, given the favourable risk-to-reward ratio.

Development stage	Risking	Weighting	Valuation £ million	Per share p
Scoping Study (PEA)	75%	25%	11	13
Feasibility	60%	40%	18	21
Fully funded construction	40%	60%	26	31
Commissioning	20%	80%	35	42
Steady-state production	0-5%	95-100%	42 - 44	50 - 52

*Potential valuations of the GSM business as the initial three projects climb the valuation curve, moving from the Scoping Study stage to steady-state production. Source: Optimo Research*

## Conclusion

The mining process is slow. After the excitement of discovering a deposit, it is believed to take 7-10 years to bring a conventional mine into operation. Some junior companies almost go bankrupt trying to start projects, and if they borrow from Private Equity, they risk losing the mine at the first sign of any production issues. Eliminating traditional mining processes significantly reduces capital costs, as there is no need to fund risky exploration, diamond drilling, expensive feasibility studies, scoping studies, environmental assessments, resource delineation, and permitting.

The path to gold production can be quite rapid if all these stages are skipped. GSM is noticing a trend that has been quietly developing unnoticed for some time: gold processing and trading, which offers an opportunity to swiftly increase gold output without the need for mining. Most of these businesses are privately owned, and there appears to be a chance for some of them to be acquired by the company in exchange for shares (which might relate to project number 3).

We believe the company is likely to be warmly welcomed by the governments of African countries because, in remote areas, artisanal gold miners are heavily exploited to fund war, terrorism, and organised crime. Many African nations are developing national action plans to reform the ASM gold sector. This is not just about legalising this covert industry to collect taxes, but also about tackling serious health issues, exploitation, modern slavery, and environmental damage.

GSM's investment in and development of tolling facilities will enable legal, controlled, and verifiable gold sales, helping regulate mining exports, which governments welcome. At the same time, environmental protection will be strictly enforced by disposing of residue and tailings in a licensed TSF. Additionally, the company will enhance the livelihoods of local communities by adding value to their gold production through advanced technology that they could never afford.

Based on our analysis above, we believe that GSM presents a unique and appealing gold investment. As we gain more clarity about its potential upside, we look forward to updating our analysis. We are increasing our coverage of Golden Sovereign Mines with an unrisks target valuation of £44.3 million, which we believe could be achieved by 2027 when all three initial gold projects are in production, corresponding to an unrisks target price of 52p.



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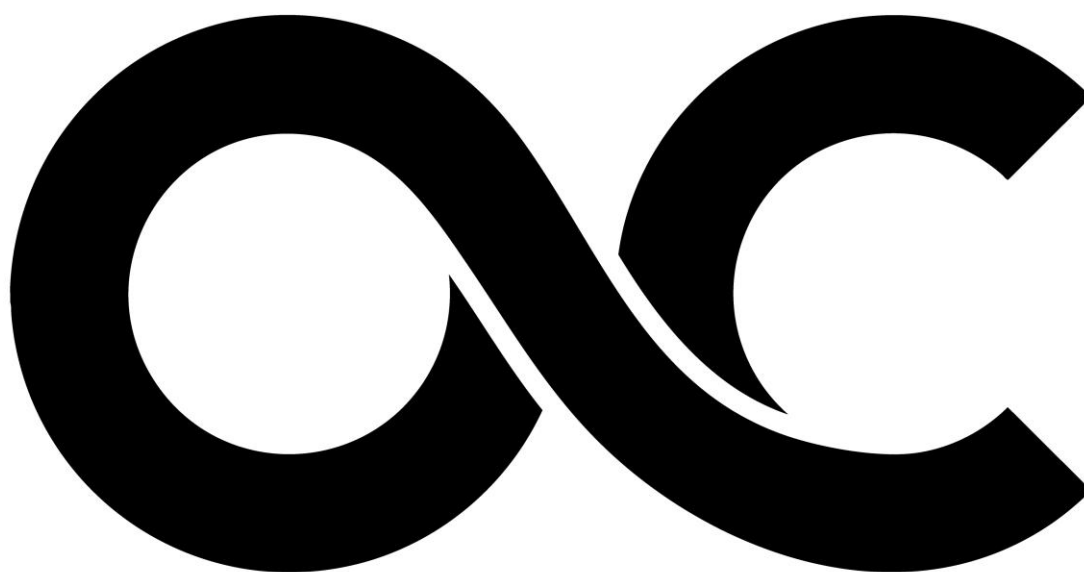
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