Genmin

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16 April 2024

Financing and Developing Baniaka

NEED TO KNOW

- **Focus on Baniaka development, capital raising supports progress**
- **Transitional Gabon Government supportive of project**
- **High-quality product, 'green steel' opportunities**

Focus on developing Baniaka; capital raising supports progress: The full focus of Genmin (GEN) is finalising project financing and building Baniaka, with commercial production targeted for mid-2025. The recent capital raising generated A$23.4m, and GEN now has A$13.2m in cash after brokerage costs, repayment of shareholder loans, and other creditor offsets.

Peaceful regime change in Gabon – highly supportive of this major project: Gabon's transitional government is highly supportive of Baniaka's development, recognising its importance in creating employment and export income. This was demonstrated when the transitional government granted a 20-year large-scale Mining Permit just 4 months after the regime change.

High-quality product, green steel opportunities: GEN's Baniaka Green® iron ore products contribute to energy efficiency and lower emissions. We believe GEN has significant potential to benefit from the green steel thematic.

Investment Thesis

Baniaka, a long-life project with large expansion potential: Baniaka's 100 Mt Ore Reserve and 758Mt Mineral Resource supports a large-scale iron ore mine. Initial planned production is 5Mtpa, expanding to 10Mtpa within the first few years of operation, with an aspirational target of +20Mtpa.

High-quality product with premium pricing, green credentials and offtake MoUs in place: Independent value-in-use testing by Central South University in China verified that Baniaka's products are high-quality, contribute to energy efficiency and lower emissions and will attract a substantial premium to the benchmark iron ore price. There is offtake interest from Baowu and Hunan Iron & Steel, both top 15 global steel producers. In securing long-term renewable hydroelectricity to power the project, GEN aims to provide lower carbon intensity iron ore, trademarked as BaniakaGreen®.

Established infrastructure underpins strong iron ore production, sales potential: Iron ore is a bulk commodity that requires robust infrastructure to support production and route to market. GEN has access to quality bulk haulage rail & port services and power infrastructure with proven partners, providing key operational and capital cost advantages and an established route to global iron ore markets. Hydroelectric power supply boosts ESG credentials; a long-term agreement is locked in for 100% renewable power.

Valuation A$0.36 ($0.51 Prev); Baniaka the Key

The key to our risked valuation of A$0.36/share is the successful development of Baniaka. Our valuation has decreased due to the increase in the share count from the recent capital raising, inclusion of the options in our fully diluted share count and a conservative view on project commencement.

Risks

Key risks include funding, government stability and project construction.

Equity Research Australia

Materials

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GENMIN

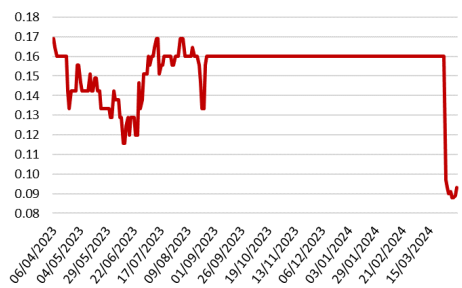
Genmin is an emerging African iron ore producer with projects in the Republic of Gabon. GEN has invested~US$35m in developing a pipeline of iron ore projects in Gabon over the nine years prior to listing on the ASX. After raising AU$30m in a March 2021 IPO and releasing a PFS on Baniaka, GEN is now working towards FID on a starter 5Mtpa project. GEN's vision is to develop a long-life iron ore export hub in Gabon and deliver both lower carbon intensity and higher grade raw materials to markets to minimise logistic chain carbon contribution, and direct emissions to enhance its value proposition to potential offtakers, spot customers, and investors. www.genmingroup.com

Valuation	**A$0.36** *(from A$0.51)*
Current price	**A$0.09**
Market cap	**A$64m**
Cash on hand	**A$13.2m**

Upcoming Catalysts / Next News

Period	
Q2CY24	Finalisation of project funding
Q2CY25	GEN target first production

Share Price (A$)



Source: FactSet, MST Access

Figure 1: Genmin financial summary (US$)

Year end 31 December		
Share Price	A$/sh	**0.094**
52 week high/low	A$/sh	0.17-0.09
Valuation	A$/sh	0.36
Market Cap (A$m)	A$m	64
Net Debt / (Cash) (A$m)	A$m	(13)
Enterprise Value (A$m)	A$m	51
Shares on Issue	m	685
Options/Performance shares	m	126
Other Equity	m	1,095
Potential Diluted Shares on Issue	m	1,906

INVESTMENT FUNDAMENTALS		FY22A	FY23A	FY24E	FY25E	FY26E
Reported NPAT	US$m	(8.0)	(13.2)	(6.4)	(8.6)	11.9
Underlying NPAT	US$m	(8.0)	(13.2)	(6.4)	(8.6)	11.9
EPS Reported (undiluted)	¢ps	(2.0¢)	(2.9¢)	(1.1¢)	(0.7¢)	0.6¢
EPS Underlying (undiluted)	¢ps	(2.0¢)	(2.9¢)	(1.1¢)	(0.7¢)	0.6¢
Underlying EPS Growth	%	n/m	n/m	n/m	n/m	n/m
P/E Reported (undiluted)	x	n/m	n/m	n/m	n/m	10.1
P/E Underlying (undiluted)	x	n/m	n/m	n/m	n/m	10.1
Operating Cash Flow / Share	US$	(0.02)	(0.03)	(0.01)	(0.00)	n/m
Price / Operating Cash Flow	x	n/m	n/m	n/m	n/m	n/m
Free Cash Flow Yield	%	n/m	n/m	n/m	n/m	n/m
Book Value / Share	US$	0.08	0.05	0.05	0.08	0.09
Price / Book	x	1.1	1.7	1.8	1.2	1.1
NTA / Share	A$	0.13	0.08	0.08	0.12	0.13
Price / NTA	x	0.7	1.1	1.2	0.8	0.7
Year End Shares	m	450	451	684	1,780	1,906
Market Cap (spot)	A$m	42	42	64	167	179
Net Debt / (Cash)	A$m	5	26	14	159	138
Enterprise Value	A$m	47	68	78	327	317
EV / EBITDA	x	n/m	n/m	n/m	n/m	n/m
Net Debt / Enterprise Value		0.1	0.5	0.3	3.1	2.7

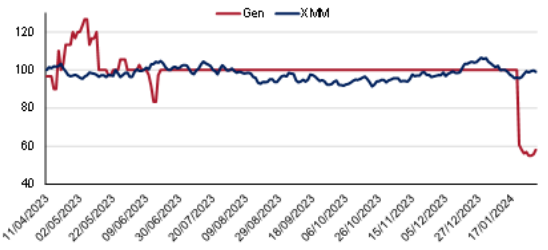
Resources

Class	Material	Tonnes (Mt)	Fe (%)	SiO_2 (%)	Al_2O_3 (%)	P (%)	S (%)	LOI
Indicated	DID	67.1	47.4	15.9	8.0	0.072	0.076	7.5
	Soft Oxide	100.6	43.1	29.1	3.9	0.058	0.054	4.5
	Intact Oxide	61.5	37.0	39.0	3.2	0.059	0.052	3.1
	Total	**229.2**	**42.8**	**27.9**	**4.9**	**0.063**	**0.060**	**5.0**
Inferred	DID	5.8	41.8	21.3	10.2	0.067	0.071	7.3
	Soft Oxide	15.9	43.7	31.4	2.7	0.055	0.031	2.9
	Intact Oxide	19.3	36.7	42.1	2.6	0.057	0.033	2.0
	Primary BIF	488.6	33.5	44.5	2.3	0.58	0.84	1.2
	Total	**529.6**	**34**	**43.7**	**2.4**	**0.058**	**0.081**	**1.4**
Grand Total		**758.8**	**36.7**	**38.9**	**3.2**	**0.059**	**0.074**	**2.5**

Reserves

Class	Material	Tonnes (Mt)	Fe (%)	SiO_2 (%)	Al_2O_3 (%)	P (%)	S (%)	LOI
Probable	DID	45.5	48.2	15.3	7.7	0.070	0.070	7.4
	HYB	2.1	35.9	25.8	12.9	0.060	0.070	8.6
	Soft Oxide	53.2	46.2	24.6	3.7	0.060	0.070	4.9
Total		**100.8**	**46.9**	**20.4**	**5.7**	**0.06**	**0.07**	**6.1**

12-Month Relative Performance vs S&P/ASX Metals & Mining



Profit & Loss (US$m)	FY22A	FY23A	FY24E	FY25E	FY26E
Sales	-	-	-	-	100
Expenses	(8)	(13)	(6)	(8)	(76)
EBITDA	**(8)**	**(13)**	**(6)**	**(8)**	**24**
D&A	(0)	(0)	(0)	(0)	(3)
EBIT	**(8)**	**(13)**	**(6)**	**(8)**	**20**
Interest	(0)	-	(0)	(0)	(9)
Tax	-	-	-	-	-
NPAT	**(8)**	**(13)**	**(6)**	**(9)**	**12**
Exceptionals	-	-	-	-	-

Balance Sheet (US$m)	FY22A	FY23A	FY24E	FY25E	FY26E
Cash	7	0	4	17	31
Receivables	0	0	0	0	8
Inventory	0	0	-	-	5
PP&E	2	1	3	206	208
Other	43	46	46	46	46
Assets	**52**	**48**	**54**	**268**	**298**
Creditors	4	5	5	5	8
Debt	11	18	14	124	124
Leases	0	0	0	0	0
Provisions	-	-	-	-	-
Other	-	-	-	-	-
Liabilities	**15**	**23**	**19**	**129**	**132**
Net Assets	**38**	**25**	**35**	**139**	**166**

Cashflow (US$m)	FY22A	FY23A	FY24E	FY25E	FY26E
Cash From Operations	(7)	(9)	(5)	(5)	27
Interest	0	0	(0)	(0)	(9)
Tax	-	-	-	-	-
Net Cash From Operations	**(7)**	**(9)**	**(5)**	**(5)**	**18**
Capex	(1)	(0)	(0)	(200)	(3)
Exploration	(13)	(3)	(2)	(2)	(2)
Investments	10	-	-	-	-
Free Cash Flow	**(11)**	**(12)**	**(7)**	**(208)**	**13**
Equity	5	0	15	110	1
Borrowings	(0)	5	(3)	110	-
Dividend	-	-	-	-	-
Net Increase / (Decrease) in Cash	**(6)**	**(7)**	**4**	**12**	**14**

Source: GEN, MST Access estimates.

Capital Raise Completed – Focus on Developing Baniaka

A$23.4m capital raising clears the decks;

cash on hand A$13.2m

GEN has completed a placement and entitlement offer raising approximately A$23.4m. After costs of the raising as well as repayment of shareholder loans from major shareholder Tembo Capital, GEN is debt free and has a cash balance of A$13.2m.

Details of the capital raising

Placement to institutional, sophisticated and professional investors and directors: raised A$13.2m

The first stage of the capital raising was a two-tranche placement to directors, as well as institutional, sophisticated, and professional investors, at A$0.10 per share.

- Tranche 1: A$4.43m (44.32m new shares); each subscriber entitled to receive one new option (expiring 31 March 2026, strike price A$0.20) for every new share subscribed for (44.32m new options)
- Tranche 2: A$8.79m (87.89m new shares); each subscriber entitled to receive one new option for every three new shares (29.3m new options).

One for three, non-renounceable entitlement offer: raised $10.2m

68% of eligible entitlements were taken up by eligible shareholders, raising A$10.2m (101.467m new shares).

Shortfall securities under the entitlement offer are available for placement until 19 April 2024.

New shares and options on issue

Figure 2: Details of Capital Raising

Feb-24 Capital Raising	A$m	Px	Shares
Placement - Tranche 1	4.43	0.10	44.3
Placement - Tranche 2	8.79	0.10	87.9
NREO	10.15	0.10	101.5
TOTAL	**23.4**		**233.7**

Options	Ratio	Options
Tranche 1	1:1	44.3
Tranche 2	1:3	29.3
NREO	1:3	33.8
JLM		10.0
TOTAL		**117.4**

Source: GEN

Remaining shortfall: 49.04m shares

Now fully focused on financing and developing Baniaka

With the capital raising complete and the Mining Permit in hand, GEN is once again trading on the ASX. Against a backdrop of a new government actively promoting and streamlining time frames for new economic development in Gabon, GEN's full attention in 2024 will be on (1) finalising project build financing and (2) commencing the development of Baniaka.

Figure 3: Target Baniaka development timeline

Source: GEN.

Next step: financing – target completion 2QCY24

The PFS completed in November 2022 estimates Phase 1 development capex of US$200m to bring Baniaka into production at a starter 5Mtpa. We currently assume the project is funded 50/50 with debt and equity, implying ~US$100m of required project debt financing. We expect that the receipt of the Mining Permit will attract significant investment interest in the long-term value proposition offered by Baniaka.

Chinese offtake counterparties – financing discussions

GEN is in discussions with several potential financing partners, including two of its Chinese offtake counterparties.

Non-binding MoUs have been signed with four Chinese steelmakers, including Baowu Resources (largest steel producer globally) and Hunan Iron & Steel (major FMG shareholder) – management notes strong interest in Baniaka's iron ore products (Baniaka Green®) in the key Chinese market.

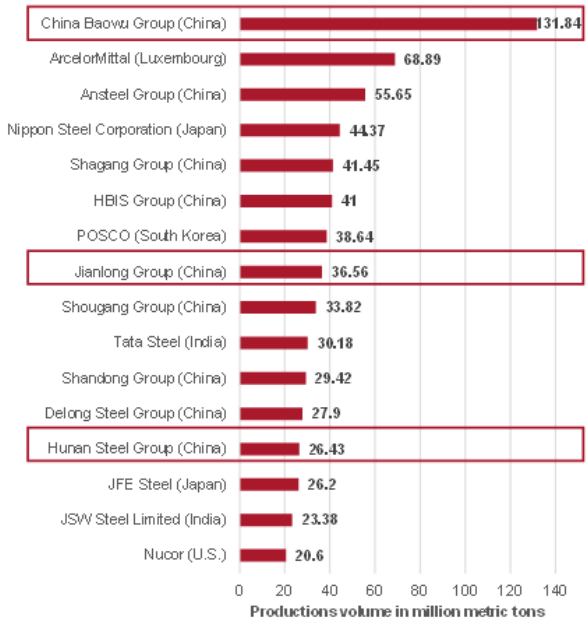
The four non-binding MoUs signed with Chinese counterparties represent a total offtake volume of 19Mt over initial 2–3 year terms.

Figure 4: GEN's non-binding offtake MOUs with Chinese counterparties

Partner	Term (Years)	Mtpa	Total (Mt)
Baowu Resources Co.Ltd	2	2.1	4.2
Jianlong Group	2	2.0	4.0
China Minmetals Corp	3	2.0	6.0
Hunan Iron and Steel Group Co. Ltd	2	2.4	4.8

Source: GEN.

Figure 5: Largest crude steel producers globally – 2022 (MOUs with GEN highlighted)



Source: Statista.

Hunan Iron & Steel – could the FMG playbook repeat?

The offtake agreement signed with Hunan Iron & Steel in August 2023 has broader potential for GEN's strategic development, in our view, given Hunan's successful track record of taking equity stakes in iron ore projects for which it is also a customer. In 2009 Hunan acquired a 16.5% position in FMG for $1.2bn, with Hunan's commentary at the time indicating that the support for FMG was aimed at supplying the capital necessary to underpin FMG's ongoing project pipeline development.

One of the key strategic advantages of Gabon's emerging iron ore export industry is the ability for Chinese customers to diversify exposure away from over-reliance on Australian suppliers, given that geopolitical tensions have escalated in recent years between China and Western governments. As such, we believe that Chinese steel producers will be keenly observing the current leadership transition in Gabon with a view to providing support to emerging significant resources projects such as Baniaka if required.

Hunan Iron & Steel is currently FMG's third-largest shareholder with a 8.7% stake worth ~A$7.4bn, with sales of several parcels over the years netting significant proceeds on the original investment.

The timing of Hunan Iron & Steel's offtake is also notable, given the near-term potential of the final equity raising to support project construction, providing a looming liquidity window for large stakeholders to take a position in GEN ahead of the company's potential transition from developer to producer.

Peaceful regime change in Gabon – highly supportive of a crucial projec
t

Transitional government demonstrates commitment to economic development with fast and efficient sign-off of Baniaka's Mining Permit

Shortly following the peaceful regime change, GEN was encouraged by how quickly day-to-day activities returned to normal throughout Gabon, and the prompt and calm appointment of a Transitional President, Prime Minister, government, and parliament.

The transitional government has prioritised the economy's ongoing stability and the ongoing peaceful situation in the country. Elections are due to be held in August 2025.

Gabon has been relatively stable since the west-central African country became independent from France in 1960. Omar Bongo was the country's long-serving president, ruling the country from 1967 until his death in 2009. After his death, Omar Bongo's son Ali Bongo was elected president, having held senior positions in government during his father's presidency. Ali Bongo remained in office until the non-violent coup, which occurred on 30 August 2023.

Gabon's Transitional President is the previous leader of the country's Presidential Guard, General Brice Oligui Nguema. The Presidential Decree for the Mining Permit was signed by President Oligui Nguema on 29 December 2023, only 4 months after thetransitional government was established.

With Gabon's economy so dependent on the oil and gas sector, and the transitional government's rise to power seemingly aided by criticising the prior government's slow progress on economic development, the speed and efficiency of the issuance of the Mining Permit demonstrates the new government's commitment to streamlining timeframes for economic growth, and shows the potential of Baniaka to be an example of the government's ability to foster new projects and the new leadership's legitimacy, capability and commitment to democracy.

Mining Permit – prompt sign-off by new government

The Mining Permit is a licence issued by Presidential Decree, conferring upon its holder an exclusive mining right. The term of a large-scale Mining Permit can be either 10 years (renewable as many times as necessary for periods of 5 years) or 20 years (renewable as many times as necessary for periods of 10 years).

GEN has been issued a large-scale Mining Permit for an initial term of 20 years for Baniaka. The Mining Permit was granted by Presidential Decree on 29 December 2023. The President invited GEN to Gabon to be presented with the Mining Permit on 8 January 2024.

Critical Infrastructure Signed – A Refresher

Critical to every globally significant iron ore project is access to supporting infrastructure with capacity. GEN has signed long-term agreements for two key pieces of infrastructure – (1) integrated rail and port services and (2) renewable energy.

Baniaka benefits from its favourable position near Gabon's existing rail and power infrastructure, where sufficient, reliable capacity exists to provide for Baniaka's development. GEN has secured the required critical infrastructure with binding long-term agreements signed, representing major milestones in the advancement of Baniaka.

The two key agreements are:

- a 15-year integrated rail and port transport to market solution with Owendo Mineral Port (OMP) for a starter 5Mtpa, expanding to 15Mtpa
- a 20-year/30MW supply agreement with SdP for clean, renewable hydroelectricity to power Baniaka at attractive pricing of less than US¢10 per kilowatt hour, scalable to 50MW.

Figure 6: Location of GEN's projects, with critical enabling infrastructure marked

Source: GEN.

Transport solution – export pathway established

Gabon's existing Trans-Gabon Railway (TGR) provides an established 'off-the-shelf' logistics solution for Baniaka's potential production, from the mine to the OMP. The rail and port agreement has now been formalised with the OMP.

Key terms of the agreement

- Integrated mine to ocean-going vessel transport solution
- 15-year term on a send-or-pay basis
- Guaranteed 5Mtpa capacity
- Provision to scale to 15Mtpa
- OMP to provide the required rail assets, rail haulage, train unloading and stockpile management at port, stockpile reclaim and loading of Cape class bulk carriers

Railway to mine site: the only uncontracted component

The rail and port agreement provides much of Baniaka's logistics requirements without the need for any material capex.

Connection to the railway from the mine site is the only component which is not contracted. We understand that trucking haulage to a new load-out rail terminal located near Franceville (to be constructed by GEN) will provide for the project start-up, while a new 65km rail spur line to Baniaka from the existing TGR (estimated to cost US$170m and to take 12–36 months to build) becomes economic on expansion to 10Mtpa.

Shipping: Owendo Mineral Port (OMP)

The TGR connects directly with OMP, Gabon's major new port development (~€300m invested since 2015), situated just south of Libreville. OMP is owned under a partnership which includes AP Moller – Maersk (a significant global integrator providing integrated logistics for global supply chains), Meridiam (a French sustainable infrastructure investor), Africa Finance Corporation (a multilateral financial institution, created by African sovereign states for Pan-African infrastructure investment) and Olam (a major, international agri-business) and subsidiary. Meridiam also owns a 40% stake in TGR operator SERTRAG. The OMP terminal is dedicated to ore (manganese, iron ore), and currently exports ~6Mtpa of manganese ore with plans to expand capacity further over time in line with demand.

As with the rail solution, the recent private investment in the OMP is timely for unlocking the potential of Baniaka. With a long history of mineral exports in Gabon and multiple major international specialist infrastructure and commodities companies involved in the expansion plans, GEN's agreement provides an attractive all-encompassing infrastructure transport solution for mine production at Baniaka with credible and capable counterparties who are deeply experienced in the region.

A Quick Look Back at the PFS

The Baniaka PFS was finalised in late 2022.

Key metrics outlined in PFS development scenario

- 101Mt Ore Reserve
- an initial starter operation of 5Mtpa (product) over a 10-year mine life
- planning for 10Mtpa expansion and aspirational target of 25Mtpa
- open-pit mine, conventional truck and shovel operation
- simple process plant flowsheet based on wet scrubbing, screening and gravity separation
- low-cost hydroelectricity power supply
- dry-stacked tailings disposal
- US$201m capital expenditure including ownership of key infrastructure links such as a dedicated power transmission line and rail loadout facility
- US$59/t C1 cash cost of operation (LOM average) and US$67/t AISC
- post-tax NPV of US$391m

Green Steel: The Decarbonisation Opportunity

The push towards rapid growth in commercially viable green steel is well underway, currently led by demand from automakers. While greater usage of renewable energy in steelmaking and increased investment in innovative low-carbon steelmaking (e.g. utilising hydrogen) are a key focus of growth in green steel supply, in the near term, premium high-grade iron-ore products are likely to be leading beneficiaries of these trends.

GEN – greener product positioning – contributing to Scope 1 and Scope 3 CO_2 reduction

Industry push to lower its carbon footprint and produce greener steel

The global steelmaking industry is aiming to reduce its carbon footprint. Steelproduction remains a relatively high carbon dioxide (CO_2) emitter, witheach tonne of steel produced typically emitting 1.9 tonnes of CO_2. Overall, the steelmaking industry contributes 7–9% of global CO_2 emissions[1], and the reduction of these emissions is a global priority.

Steps to greener steel production

The industry is moving towards production of greener steel by

- sourcing raw materials which are of higher quality (e.g. higher-grade iron ore feed stocks and lower carbon intensity, e.g. iron ores produced and/or transported partially or fully with renewable energy)
- using carbon-free processing technologies which substitute hydrogen for metallurgical coal.[2]

Understanding Scope 1, Scope 2 and Scope 3 emissions

Generally, in the iron making process (the first step in producing steel):

- **Scope 1** emissions relate to the conversion of iron ore to iron in the blast furnace and/or the sintering (agglomeration) pre-treatment of fines before feeding into the blast furnace, and the main source of CO_2 emissions come from the use of metallurgical coal as a fuel and reducing agent to melt the iron ore and convert it to pig iron.
- **Scope 2** emissions are indirect and typically relate to CO_2 emissions from an outside power supply used by the steel mill.
- **Scope 3** emissions are indirect downstream (e.g. transporting intermediate or finished products to market) and upstream (e.g. mining activities to produce and transport iron ore to the steel mill) value chain CO_2 emissions[3].

Figure 7: Illustration of Scope 1, 2 and 3 emissions

Source: Climate Now.

Figure 7 shows where these emissions sit in the supply chain.

GEN's iron ore products, Baniaka Green®, meet this new demand perfectly

GEN's proposed iron ore products from Baniaka (Baniaka Green®) are attractive to steel mills (customers) in the iron-making process because of their high iron grade, as this higher grade requires less iron ore to be processed per unit iron output with consequential lower metallurgical coal consumption (less fuel, higher energy efficiency) and Scope 1 CO_2 emissions. Furthermore, their favourable metallurgical characteristics –how quickly the iron ore melts and converts to iron in either the blast furnace or in the sintering (agglomeration) pre-treatment of fines before feeding into the blast furnace – have been shown to contribute to energy efficiency and lower Scope 1 CO_2 emissions.

The high-grade nature and separate favourable metallurgical characteristics of Baniaka's proposed iron ore products were independently determined by Central South University (CSU) in Changsha, Hunan Province, China. CSU concluded the company's proposed lump and fines iron ore products have high iron grade, low silica, low alumina and low levels of deleterious elements such as phosphorus, sulphur and alkali metals. The analysis also indicated that Baniaka Fines improves sintering efficiency with a 12.5% increase in productivity (how quickly the iron ore sintered). This resulted in 8.6% lower solid fuel consumption (i.e. metallurgical coal and by extension higher energy efficiency and lower Scope 1 CO_2 emissions) when substituting for some Australian Fines and Brazilian Fines currently used in sinter feed blends (refer to ASX announcements 'Positive Baniaka PFS' dated 16 November 2022 and 'Quarterly Activities Report' dated 31 October 2023).

In addition, in securing a long-term supply of clean, renewable hydroelectricity to power Baniaka (refer to ASX announcement 'Genmin signs long-term power agreement for Baniaka' dated 1 February 2023), the company aims to provide lower carbon intensity raw materials to minimise the Scope 3 upstream value chain CO_2 contribution for its customers and enhance its value proposition to potential offtakers, spot customers, and investors.

We take a more detailed look at the movement to green steel, and highlight where the potential exists for GEN's high-grade, low carbon intensity iron ore whose power is sourced from a 100% renewable power source.

Figure 8: Baniaka Green® logo

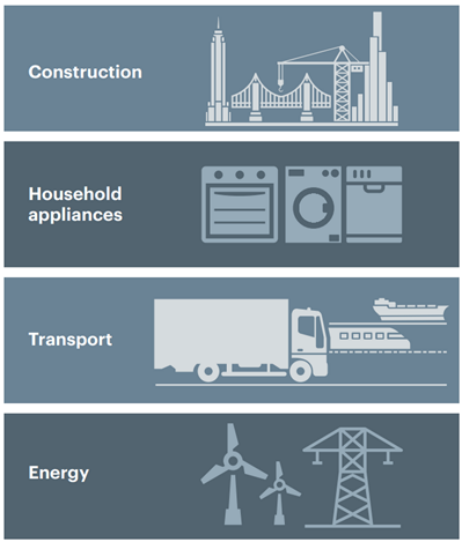
BANIAKA GREEN®

Source: GEN.

Disrupting a carbon intensive but critical process

The production of steel remains fundamental to modern life, and increasingly underpins 'electrification' objectives, due to the substantial required investments in infrastructure to enable these trends including EVs, expanded electricity transmission infrastructure capacity, new mines and process facilities for required critical commodities.

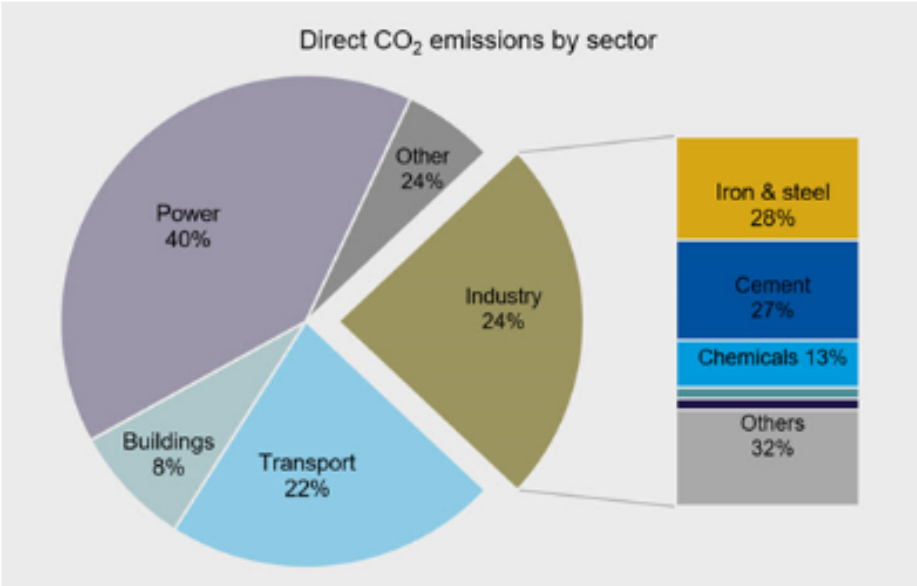
Figure 9: How are steel and iron ore used?



Source: BHP.

Current steelmaking processes require intensive usage of reliable baseload energy, typically sourced from traditional generation options, primarily thermal coal. This is reflected in the estimated carbon emissions of the sector, with the International Energy Agency estimating that iron and steel production accounts for 28% of global industrial CO_2 emissions.

Figure 10: Direct CO_2 emissions by sector (global)



Source: IEA, CRU.

Given the evolving interest in a decarbonised supply chain from some manufacturers (mainly premium brands), segments of the steelmaking industry have identified an opportunity to produce a premium, differentiated product in the form of low-carbon steel or 'green steel'. Achieving this distinction within the steelmaking supply chain could take the form of various pathways including:

- steel production utilising renewable energy supplies in conjunction with storage infrastructure to alleviate intermittency concerns (i.e. batteries)
- commercialisation of innovative new low-carbon energy technologies such as direct reduced iron (DRI) utilising hydrogen
- utilisation of higher-grade, low-impurity iron ore feedstock.

While the implementation of new low-carbon energy supply solutions in steel production, is likely the most effective solution for reducing carbon intensity in steel production, the cost of production for steel is most sensitive to the price of electricity. As such, any potential increase in energy costs related to the adoption of renewable and/or other innovative energy technologies would drive material increases in steel production costs and thereby threaten profit margins for steelmakers.

Given the dominance of established electricity generation supply in heavy industry, and the critical operational risks of intermittency associated with renewables which are yet to be fully resolved via the availability of economic large-scale battery storage solutions, steelmakers' demand for and access to sufficient supplies of lower-carbon electricity supply is likely to be on a trajectory of only incremental improvement for the foreseeable future.

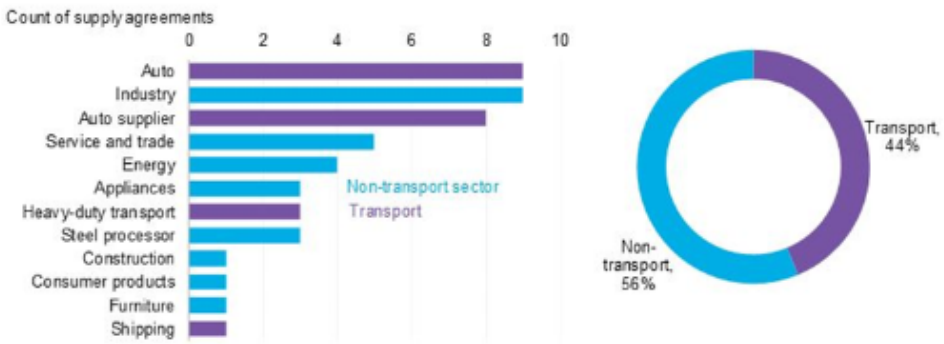
Significant opportunity for the iron ore market – accelerated demand for high-grade products will likely expand price premiums

While, in a broad sense, the steel industry is likely to require substantial energy generation upheaval to make any material headway in decarbonisation globally, there is near-term potential for markets to emerge within the global seaborne iron ore export industry to cater for premium steel manufacturing where demand for these initiatives is more pressing. This will likely result in accelerated demand for premium, high-grade iron ore products (which are in limited supply) and potential sustainable expansion of price premiums relative to benchmark products.

The opportunity in the iron ore industry is therefore significant given the potential of enhanced economic value in deposits which are well suited to delivering into this demand growth. As such, over time, we consider the green steel opportunity to be a significant potential tailwind for projects that are able to harness the demand for premium iron ore raw materials as an input into green steel production as it gains further traction.

Numerous green steel supply agreements have already been agreed, with automakers leading the push to source low-carbon raw materials, likely linked to production of EVs where customer demand for decarbonisation is already established and higher steel costs are relatively small in the overall cost of manufacturing.

Figure 11: Supply agreements for green steel (data as of May 2023)



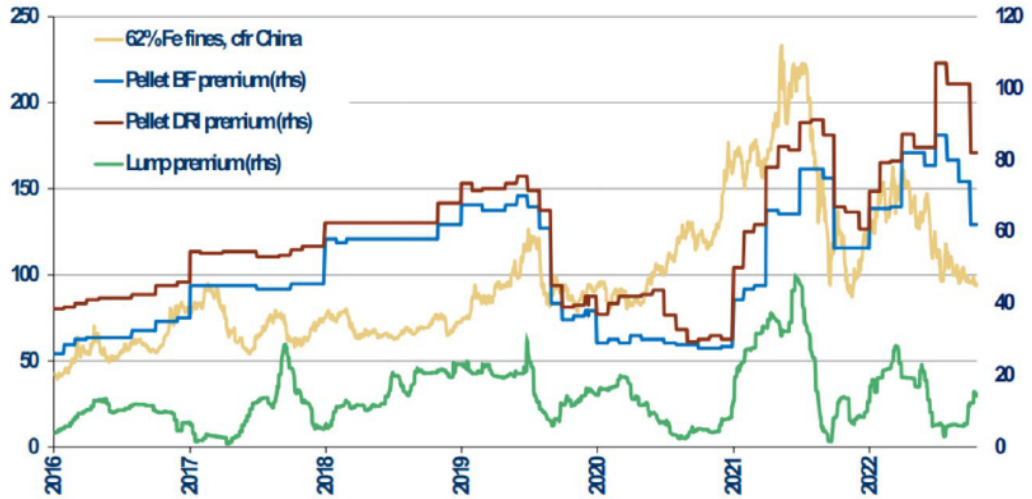
Source: https://about.bnef.com/blog/green-steel-demand-is-rising-faster-than-production-can-ramp-up/

Potential premium pricing = economic opportunity

Should current market interest continue to convert to incremental demand, and should a willingness build from end-users to pay a higher price for products with low carbon certifications on a sustainable basis, it is likely that suppliers of key raw materials will extract premium pricing over the medium and long term as relatively scarce products within a broader commoditised market. Bloomberg estimates that, on average, green steel currently costs ~40% more than regular steel, although this is expected to reduce over time.

This has already become evident in observed premiums for iron ore pellet pricing, which has shown rising premiums vs benchmark products.

Figure 12: Iron ore product premiums vs fines (LHS = Premium to fines US$/t; RHS fines price US$/t)



Source: Platts, Morgan Stanley

A high-profile example of the push towards decarbonised supply chains is at Apple, which has flagged a commitment for every product it produces to be carbon neutral by 2030, highlighting the 3 biggest sources of emissions categorised across the product lifecycleas:

- electricity
- materials
- transportation.

Figure 13: Apple targets carbon-neutral supply chain by 2030


PRESS RELEASE
July 21, 2020

Apple commits to be 100 percent carbon neutral for its supply chain and products by 2030

Already carbon neutral today for corporate emissions worldwide, the company plans to bring its entire carbon footprint to net zero 20 years sooner than IPCC targets

Source: apple.com.

Quantifying the potential upside of premium pricing for green steel remains subject to significant uncertainties. However, given the momentum of government regulations in subsidising up front investments required to decarbonise certain aspects of developed economies, we expect that over time the economic rationale for green steel may benefit from both demand tailwinds in conjunction with regulatory incentives to heavily subsidise required capital investments.

McKinsey has estimated that demand for green steel will grow to >200Mt by 2030 and represent >10% of total steel demand, with estimated premiums of US$200-US$350/t. (See 'Capturing the green-premium value from sustainable materials', McKinsey, October 2022.

Magnetite ore starts to show its potential

Hematite vs magnetite – hematite traditionally considered superior

The key differentiating factor that enables lower carbon intensity in the usage of iron ore in the steel production process is utilisation of higher-grade, low-impurity feedstock. The majority of the iron ore market has traditionally been made up of hematite ores, which tend to be relatively higher-grade and therefore qualify as Direct Shipping Ore (DSO), meaning they can be sold directly into the market from mining operations with no requirement for intensive processing.

Magnetite has traditionally been considered an inferior form of iron ore compared to hematite, as it typically has much lower iron content in its natural form and therefore requires concentration prior to commercial sale to suit end user requirements.

Magnetite starts to show its potential in premium steel

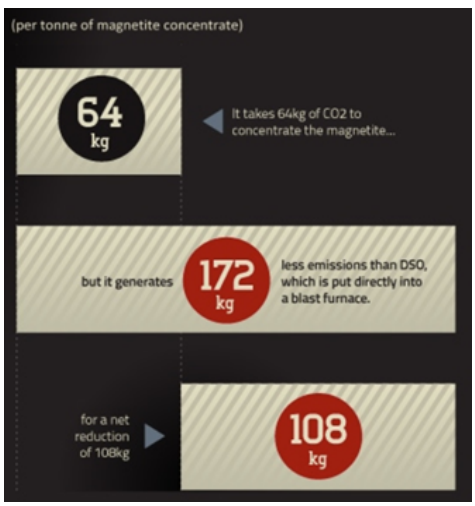
Magnetite typically has much lower iron content in its natural form and therefore requires concentration prior to commercial sale to suit end user requirements.

Magnetite is processed into a concentrate consistently grading >68% Fe, making it ultimately higher grade vs hematite benchmarks at ~63%, and therefore better suited for premium steel markets. Furthermore, magnetite has more potential to be applied in rapidly improving ore beneficiation methods such as ore sorting, given the magnetic properties which enable separation to form part of the processing route. Ore sorting can significantly reduce the non-mineralised content of the ore and therefore increases overall grade.

GEN has magnetite potential within its portfolio.

While the processing of magnetite ores into concentrate requires additional energy consumption and therefore carbon, the savings in downstream steel processing has been estimated to more than offset this based on analysis by the Crucible Group, as illustrated in Figure 14

Figure 14: Life cycle analysis of magnetite in steel production



Source: Iron Road Limited.

Conclusions

The push towards rapid growth in commercially viable green steel is well underway, currently led by demand from automakers. While greater usage of renewable energy in steelmaking and increased investment in innovative low-carbon steelmaking (e.g. utilising hydrogen) are a key focus of growth in green steel supply, in the near-term premium high-grade iron-ore products are likely to represent a leading beneficiary of these trends.

Valuation: Risked NPV of A$0.36/Share (Previous A$0.51)

Base-case valuation methodology: SOTP with risk-weighted DCF for Baniaka – Baniaka is the key to our valuation

We value GEN using sum-of-the-parts methodology, adopting a risk-weighted DCF analysis for the Baniaka project and high-level estimates for the remaining projects. As the cornerstone asset, Baniaka accounts for almost all of our overall valuation for GEN. We have assigned nominal value to the other assets, and believe their value is largely contingent on Baniaka's success.

The project is now at the PFS stage of development, and its technical and economic parameters are subject to some degree of uncertainty. However, we see the level of detail, technical assessment and depth of analysis in ascertaining capex and opex as being somewhat akin to the BFS/DFS level.

Accordingly, GEN has decided to proceed straight to FID. Originally GEN targeted FID in CY23. However, given the regime change in Gabon, and with the Mining Permit issued, we see funding being agreed to and FID coming through in 1HCY24. Our estimates rely upon the disclosures in the PFS.

We highlight GEN's strategic decision to spend extra capex on a dedicated power transmission line from the Grand Poubara hydro plant and a rail loadout facility providing an interconnection to the logistics corridor on the Trans-Gabon Railway. This decision to own and control critical elements of the project infrastructure provides both de-risking benefits as well as opportunistic upside over the medium term.

Key assumptions; substantial medium-term upside potential – upgrade potential if GEN delivers to its production timetable

We value GEN at A$0.36 per share (previously A$0.51). Our valuation assumes a 10-year bulk open-pit mining operation at Baniaka with an initial 5Mtpa operation.

We have been **very** conservative with our construction timetable, assuming first production in CY2026. It should be noted that GEN targets first production in CY2025; if the company delivers to this timetable, it would lead to an upgrade in our valuation.

We have assumed 1Mt production in the first year, 3Mt in CY2027 and full production of 5Mt in CY2028. We assume an expanded operation to a total of 10Mtpa commencing in Year 3 of production (after completion of a rail spur). If we assume a 5mtpa operation for over the same 10-year mine life our valuation is A$0.23, still significantly above the current share price.

Key drivers of per-share valuation change – capital raising and options

The key driver of our valuation change relates to the issue of shares from the recent capital raising. We had previously anticipated a A$10m raising in 2024, however GEN raised $23.2m @ A$0.10, leading to an increase in the shares on issue. In addition to the shares on issue, investors who participated in the placement have been issued 117.4m March 26 options @ A$0.20. We calculate our per-share valuation on a fully diluted basis (as the exercise price of the options are below our valuation, therefore we assume they are exercised). Thus, this has added further shares to our fully diluted total.

Given that the new regime has fully supported the granting of the Mining Permit we believe that the risk of the project going ahead has decreased; however, this risk remains to some degree until final funding is achieved. The risk weighting of the Baniaka portion of our valuation is now 75% versus 67% previously. Final funding will increase this probability substantially.

Over the medium term, we see a number of potentially significant upside scenarios which are not captured within our base-case estimates, primarily relating to potential additional exploration success and subsequent increases in production and/or extension of mine life. We see exploration upside potential as significant given that only a relatively small proportion of the Baniaka prospects has been explored.

Figure 15: Valuation summary

NPV OF PROJECTS	US$M	Ownership	Risk Weight	A$M	A$/share
Baniaka	639	90%	75%	644	0.34
Bakoumba (Advanced Expl.)	30	100%	50%	22	0.01
Minvoul/Bitam (Early Expl.)	10	100%	50%	7	0.01
Exploration and Investments	30	100%	50%	22	0.00
ENTERPRISE NPV	**709**			**696**	**0.36**
Corporate Costs	(20)	100%	100%	(30)	(0.02)
Net Cash (Debt)	9	100%	100%	13	0.02
TOTAL	**698**			**679**	**0.36**

WACC	**10.0%**
AUDUSD	0.67
Shares on issue (Undiluted)	685
Options and Rights	126
Additional Equity Required	1,095
Shares on issue (Fully Diluted)	**1,906**

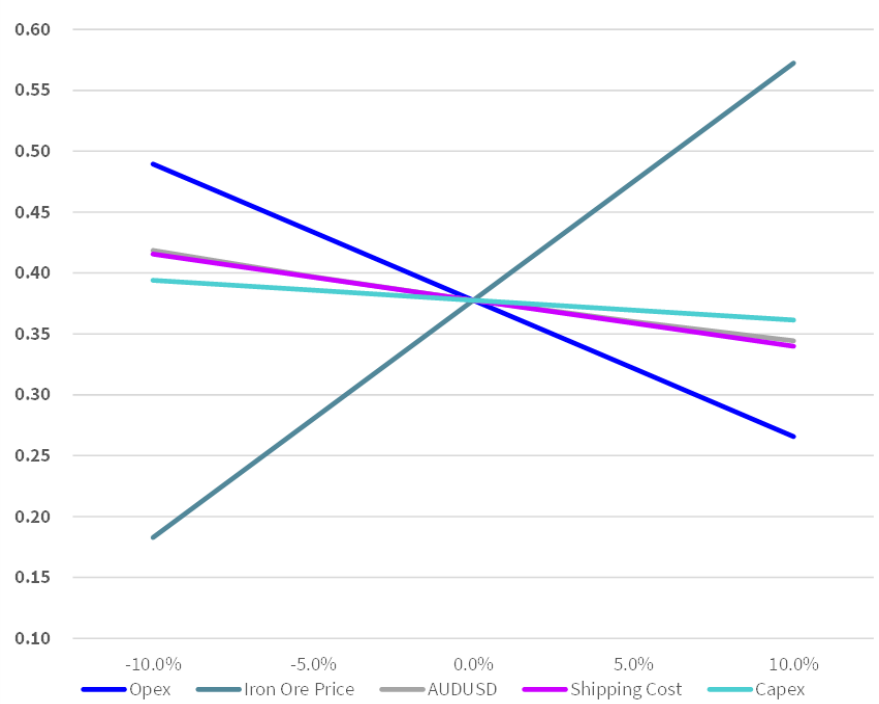
Source: MST estimates.

Figure 16: Key valuation assumptions

Assumptions	
PROJECT ASSUMPTIONS	
Project Ownership (Govt 10% participation right) (%)	90%
Processing Plant Throughput (mtpa) - Stage 1	8.3
Processing Plant Throughput (mtpa) - Stage 2	16.7
Life-of-Mine Average Recovery (%)	60%
Mine Life (years)	10.0
Life-of-Mine Strip Ratio (waste:ore)	1.0
Stage 1 Production (dmt)	5.0
Stage 2 Production (dmt)	10.0
Baniaka Mineral Resource (mt)	759
Grade (% Fe)	37%
Baniaka Reserve (mt)	101
Grade (% Fe)	46.9%
COST & FINANCING ASSUMPTIONS	
Discount Rate (%)	10%
Stage 1 Capital Cost (US$m, real)	200
Stage 2 Capital Cost (US$m, real)	250
Life-of-Mine Average AISC (US$/dmt, real)	65
Assumed Equity Raising Price A$ per share	0.20
PRICING & EXCHANGE RATE ASSUMPTIONS	
AUDUSD	0.67
Benchmark 62% Fines (US$/dmt CFR China)	100
Premium Received 63% Lump	26.8c per unit
Royalties & Other Govt Contributions (%)	6.3%
Government Free Carry (%)	10%
Tax Rate (%)	35%

Source: MST estimates.

Figure 17: Key sensitivities



Source: MST estimates.

Positive catalysts for the share price and valuation

Funding of project

Funding a relatively large project is always a major challenge for a small company. Delivery of a competitive funding package would be a major catalyst for the stock.

Final investment decision

FID is the key decision for the project to progress and FID is expected in 1HCY24.

Early project delivery

The early commencement of any of the projects would generate cash flows sooner and would reflect positively on management, which would likely boost the valuation.

Resource development

Exploration success leading to significant upside in tonnes or grade at Baniaka, or significant discoveries at other key assets, would be a significant positive development for the prospects of the project and the overall valuation.

Further exploration success

Another key valuation driver is successful exploration, which remains a priority for the company. We see significant potential for further exploration success, which would be positive for the stock.

Price increases

The valuation is sensitive to the iron ore price. Iron ore price increases would have a positive effect on the valuation and share price.

Capital cost and/or operational cost savings

Capital and operational cost savings would benefit the valuation and reflect positively on management. GEN has indicated that it will continue to optimise project costs as it approaches FID.

Risks to the share price and valuation

Early-stage mining projects in developing countries have a number of key risks which need careful management and consideration. We note the key risks to the share price and our valuation below.

Company- and project-specific risks

Funding

AAML, previously GEN's key partner in securing project financing, had been targeting a co-financing plan whereby a partner was sought to provide the project finance requirement for construction of Baniaka. Further, AAML had also planned to provide short-term funding through a non-dilutive US$5m royalty.

With the regime change, AAML has determined to await further clarity on the intentions of the transitional government before proceeding with the royalty or potential terms for project construction related debt.

Funding risk has increased; however, with current interest from Chinese steel mills, alternative debt, cornerstone investor and equity options appear be open for GEN.

Delays to FID and first production

A critical risk here is any delay to FID (and thus first production from Baniaka)resulting from delays to the funding.

Macro risks

These include:

- iron ore price decreases – this is the key valuation sensitivity
- general geopolitical risks
- foreign exchange rates.

Country-specific risks

These include:

- the key country-specific risk is the new government. Although early signs are very positive, risk remains that there are further policy and strategy changes which may adversely affect Genmin and the project is delayed further
- regulatory changes
- reliability of infrastructure (mitigated by GEN's recent capex decisions around power and rail)
- local workforce: access to sufficient numbers of capable local workers
- supplies: access to critical mine consumables
- community opposition – this could include issues such as compensation for land access, exploration activity, employment opportunities, and impact on local business, and could lead to local dissatisfaction, disruptions in the exploration program and potential losses to the company.

Personal disclosures

Michael Bentley received assistance from the subject company or companies in preparing this research report. The company provided them with communication with senior management and information on the company and industry. As part of due diligence, they have independently and critically reviewed the assistance and information provided by the company to form the opinions expressed in this report. They have taken care to maintain honest and fair objectivity in writing this report and making the recommendation. Where MST Financial Services or its affiliates has been commissioned to prepare content and receives fees for its preparation, please note that NO part of the fee, compensation or employee remuneration paid has, or will, directly or indirectly impact the content provided in this report.

Company disclosures

The companies and securities mentioned in this report, include:

Genmin (GEN.AX) | Price A$0.09 | Target price A$0.36 | Recommendation -;

Price, target price and rating as at 16 April 2024 (not covered)*

Additional disclosures

This report has been prepared and issued by the named analyst of MST Access in consideration of a fee payable by: Genmin (GEN.AX)

Within the past 12 months, MST and its associates have provided and received compensation for investment banking services, including acting as Joint Lead Manager for the April 2024 Entitlement Offer and Placement of approximately A$23.4 million for Genmin (GEN.AX)

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