

Summary

ACF

**EQUITY
RESEARCH**



ESG / SUSTAINABILITY REPORT 2023

Metals & Mining Small-Midcap Companies

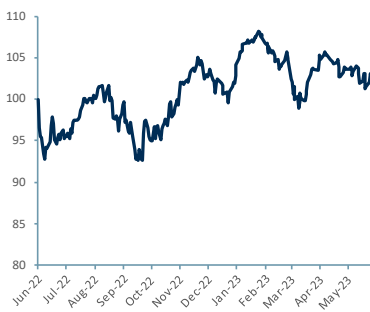
ASX Exchange (Australia)



**IN THE CATEGORY
BEST ESG RESEARCH: VENDOR**

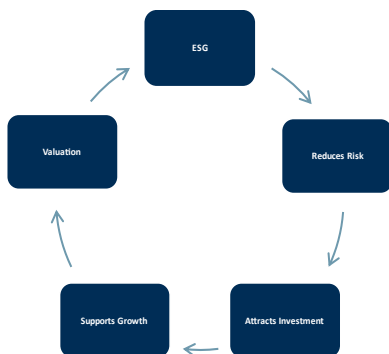
THEMATIC

S&P/ASX 200 ESG Index



S&P/ASX 200 ESG price relative

Friday, 09 June 2023



ESG / Sustainability Report 2023

Metals & Mining Small-Midcap Companies

ACF Equity Research's ESG / Sustainability Report for ASX small and mid-cap miners is designed to help investors make fast simple initial filtering decisions. For firms it helps them identify investor messaging opportunities and support their ESG / Sustainability investor strategy. Stock price and index performance data shows that companies with ESG metrics outperform the major indices.

Our sustainability report provides a clear and simple ranking system for investors that will allow small and mid-cap miners on the ASX to show where they are on the ESG / Sustainability trajectory. It provides an opportunity for small and mid-cap miners on the ASX to show off their transparency, accountability and commitment to mitigating climate and environmental risk to investors.

The junior mining sector, in particular, is in constant need of exploration and development capital. The mining sector is highly scrutinised by investors and others in relation to sustainability and its carbon footprint. Mining is the largest contributor to the Australian economy (10.4% of GDP, 2019-2020A – Australian Mining, 2020).

- We invite **Corporates** to help us draw the correct conclusions about their company's ESG / Sustainability activities and future plans.
- We invite **Partners** to help us help small and mid-cap mining companies broaden the retail and institutional investor base interest in the small and mid-cap mining sector.

CALL US TO FIND OUT MORE

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AND HOW YOU CAN PARTICIPATE IN FUTURE REPORTS

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- Full managed process and end to end content creation;
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- Helps private and public corporations articulate shareholder value;
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- A UK/EU corporate finance team that constantly innovates;
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- Counsel that achieves results.

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- Hawk & Lion cares deeply about our environment and sustainability;
- H&L offers a luxury international equestrian concierge and club;
- H&L to introduce financing services specifically for the horse industry.



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- Independent equity / investment research;
- Short and long ideas;
- For institutional investors and private equity.

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1. About ACF Equity Research

Our aim is to improve fair value and liquidity for investors and corporates through best-in-class global equity research and award winning top 10 ranked services, excellent global distribution and access to professional and retail investors. ACF Equity Research was founded to improve capital markets for all, both corporates and investors by addressing the need for liquidity in the global listed micro, small (AiM) and mid-cap, large cap and private market segments. We believe effective capital markets are the route to democratic stability, educational opportunity and global emancipation for all.

ACF was set up to improve the effectiveness of capital markets for smaller and mid-sized companies and for those that invest in them. The majority of jobs are created by smaller companies not global companies. If we can help improve companies and investors use of capital markets and improve investor perception and experience in this part of the market, more projects will be completed, more jobs and global GDP created which in turn helps create more resources for education, leading to equality and opportunity for those who are still oppressed by ignorance and poverty. We believe there are circumstances in which charitable giving can help move our goals along in education, training and infrastructure.

ACF Equity Research maintains its investment research products' independence through a series of pillars including upfront cash-only annual payments for annual services and declines to produce only one note for a client. Our testimonials and awards suggest our research is a high specification product and service set for corporate clients and investors alike.

We deliver research and insights characterised by their accuracy, clarity and foresight. Our company research products are dominated by a fundamental valuation approach.

Our independent investment research is designed to educate our professional and retail investor readers about the company under coverage, with an emphasis on clear and accurate explanations. Our mission is to improve a company's liquidity through credible equity research services, excellent international distribution and reliable access for investment managers.

We believe in the importance and value of clarity, the careful articulation of technical ideas, concepts and solutions. Our team of analysts are independently minded individuals who believe in thoroughness, technical competence and clear punchy communications.

2. General Overview

ESG / Sustainability funds in 2022 underperformed regular equities for the first time since 2018. The comparative underperformance was around 1.5% on general declines across equity funds in the region of 19-20%. According to analysis by Morning Stanley of Morningstar data traditional equity funds saw net outflows of AUM whilst sustainable funds reported net positive cash inflows of US\$ 115bn or around 3% of 2021 sustainable AUM.

Sustainable investing has been dominated by growth investments (innovation), as the market switched from growth to value in response to inflation, interest rates and European war, in 2022 ESG / Sustainability funds were caught in the rotation.

Morgan Stanley and Morningstar seem to conclude that AUM net growth as a proportion of total global AUM is around 7% p.a., up from 4% in 2018. This growth is dominated by the effect of the relative increase in value in sustainable assets under management plus net cash inflows from investors to sustainable funds.

Note that there is considerable variation in estimates for sustainable AUM regionally and globally. As such from a small and mid-cap corporate perspective the direction of travel is perhaps the most useful information point. We infer that investors overall remain very keen on sustainable investments.

Investors in sustainable funds are, in spite of recent short-term fluctuations, prepared to take a longer-term, growth-oriented investment horizon.

Navigating the ESG landscape is challenging for small and mid-caps and investors alike. The rapidly changing disclosure requirements and the 'assumed costs' involved, can be a deterrent. However, ESG is a significant driver in long-term value creation by creating greater access to capital.

For smaller companies access to competitively priced capital is perhaps the single most important challenge. This report provides these smaller caps with another venue for increasing investor awareness via greater exposure, and so increasing access to capital.

This ESG / Sustainability Report provides an opportunity for small and mid-cap miners on the ASX to show off their transparency, accountability and commitment to mitigating climate and environmental risk to investors (governance is usually dealt with via the listing process on higher quality exchanges – though of course there are plenty of tweaks and improvements that can often be made even to governance).

ACF publishes its research content on many distribution platforms, making it free to readers (Fund Managers/Portfolio Managers, retail investors and other corporates) and as such ACF has a meaningful **distribution audience of at least 30m+ p.a. (institutional + retail)**. These platforms include:

- Bloomberg (30m+ eyeballs including FMs/PMs who can influence corporate behaviour)
- Refinitiv (previously known as Reuters)
- CapitalIQ, FactSet, ResearchTree, SmartKarma
- Wire agency - We shall also use a very well-known wire agency to support distribution to media outlets both physical and digital in the US and elsewhere.
- ACF's digital assets - We also distribute across and engage with our own digital assets (we have a range of own brand and other branded social media assets) where we have incredibly strong effectiveness (third party verified).

3. ACF's ESG Rating Score Methodology

ACF Equity Research is recognised as having innovated ESG scoring by creating its own internal and simple ESG rating methodology. Because there is a lack of standardization with global rating methodologies and different agencies use different criteria, ACF'S ESG rating does not reflect or borrow from existing available ratings.

ACF assigns corporates with a score between 0 to 4, with 4 being the highest. While the scoring may seem straight forward, the analysis is a mixture of science and art. ACF's analysis involves:

- Data collection, interviews and analysis;
- Determining materiality and assessing the relevant ESG issues for each industry/sector;
- Validation and review.

ACF's ESG Rating:

We score companies based on data, interviews and analysis we carry out independently and draw the following scored conclusions:

- 0 = The company makes no significant or credible reference to sustainability or corporate governance anywhere on its website and in any publicly available documents.
- 1 = The company only has a credible Corporate Governance (CG) statement.
- 2 = The company only has a credible CG and potentially credible Corporate Social Responsibility (CSR) statement but typically lacks any metrics or third-party audit.
- 3 = The company has a credible Sustainability/ESG statement.
- 4 = The company has a credible ESG statement/policy with metrics.

4. ESG Market Background & ACF's Positioning

In the 1Q23 global sustainability assets grew 7.5% vs. global fund market growth of 4% in valuation. Sustainability fund inflows continued to grow faster at 1.4% than for the global fund universe, which grew 0.2% for the quarter.

Over the last year global markets have continued to embrace ESG, as institutional and retail investors expect companies to demonstrate their ESG commitment and strategies in ever increasing numbers. ESG commitments are also seen as an indicator of a company's future prosperity (valuation). Companies are all too aware of the need to show a robust ESG and sustainability policy to sources of capital such as professional investors and bankers.

A report published by PwC in November 2022, anticipates focused institutional investment will account globally for \$33.9 trillion of ESG Investing by 2026E.

The mining industry is adapting better than most, although small to mid-cap companies face greater challenges and some are still in the early stage of developing their ESG and Sustainability framework. These companies often operate on tight operational budgets, and many are still in pre-revenue mode. It is both reassuring and pleasing to observe that these constraints have in many cases not lessened small and mid-cap aspirations for engaging in all things ESG.

There are currently around 900 mining companies (listcorp.com) listed on the ASX. However, not all their business activities are solely in Australia; many of them operate on the international stage and they are well placed in the drive to decarbonise and establish ESG standards on a global scale.

A theme that is currently engaging firms is the implementation of their own internal due diligence and culture. Part of the drive for cultural change is achieved by engaging in regular strategy meetings both at board level and through employee participation, as well as introducing employee education and wellbeing initiatives.

Another topic engaging small and mid-cap firms is their influence within the supply chain, with some small and mid-cap firms rolling out a supplier code of conduct – setting out the company's expectations from suppliers who also have ESG principals.

Unfortunately, the collection of scope 3 emission data can be more elusive, as it makes up the highest level of miners' carbon footprint and the emissions are much more difficult for businesses to measure.

Overall, the mining industry in the small to mid-cap arena is in a good position to capitalise on the journey towards full ESG culture, processes and metrics. Although, inevitably some are more forward in this than others as showcased in this report.

However, the main point to take away from this report is not about what the companies are not doing, but what they are doing towards ESG / Sustainability despite the daily operational challenges they face.

- **Australasia** – There were 7 new sustainable fund launches 1Q23A, which would likely qualify or maintain an article 9 classification, there were 7 active fund launches and 1 passive fund launch, according to Morningstar.

Strictly defined article 9 funds in the Australasian market are broadly dominated by 10 funds, which manage 70% of Australasian sustainability funds.

Sustainability fund inflows continued to grow in 1Q23 if at a somewhat slower rate. The slowdown can largely be explained by inflation, rate outlooks and recession fears causing asset managers to cycle out of growth stocks and into defensives (value stocks). Most ESG stocks are growth stocks by definition.

Over time this growth stock characteristic of ESG funds will change as renewable energy stocks (for example) turn into utilities.

Irrespective of the slowdown of funds inflow in 1Q23, sustainable assets under management expanded 7.8% in value. The non-sustainable markets expanded around 4-5% in value over the 1Q23.

Like all hyper developed economics Australia has a continuing program of sustainability enforcement legislation - the **Safeguard Mechanism (Crediting) Amendment Bill 2023** will come into force this July aimed at large emitters (>100k Mt of scope 1 emissions).

Small and mid-cap companies must consider sustainability investment audiences outside of Australasia.

Small and mid-caps should not wait for legislation (it is coming their way in due course), they should pursue their ESG agendas because they operate in a global capital market.

Our view of the way capital markets have and are developing over the last decade, is that it is no longer sufficient for any company of any scale to assume that it can rely entirely for capital on its home market or primary listing.

5. Key Contacts

Contacts of key Australian regulatory authorities and ESG-associated authorities.

Association of Mining and Exploration Companies (AMEC)
Level 2/1, Havelock Street
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Australian Stock Exchange (ASX)
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Sydney, NSW 2000 Australia
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E: media@asx.com.au
W: <https://www2.asx.com.au>

Australian Council of Superannuation Investors (ACSI)
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E: info@acsi.org.au
W: <https://www.acsi.org.au>

Australian Government Clean Energy Regulator (CER)
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Canberra, ACT 2601 Australia
T: +61 6159 3100
E: enquiries@cleanenergyregulator.gov.au
W: <https://www.cleanenergyregulator.gov.au>

Australian Investment Council
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E: members@aic.co
W: <https://aic.co/AIC/>

Australian Prudential Regulation Authority (APRA)
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Sydney, NSW 2001 Australia
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E: info@apra.gov.au
W: <https://www.apra.gov.au>

Business Council for Sustainable Development Australian (BCSDA) – Part of WBCSD
Level 27, 20 Bond Street
Sydney, NSW 2000 Australia
T: +61 2 8005 0780
E: Web form <https://www.bcsda.org.au/contact>
W: <http://www.bcsda.org.au>

Climateworks Centre
Level 27, 35 Collins Street
Melbourne, VIC 3000 Australia
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E: info@climateworkscentre.org
W: <https://www.climateworkscentre.org>

Financial Services Council (FSC)
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W: <https://www.fsc.org.au>

Financial Services Institute of Australasia (FINSIA)
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E: info@finsia.com
W: <https://www.finsia.com>

Global Reporting Initiative (GRI)
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E: info@globalreporting.org
W: <https://www.globalreporting.org>

Greenhouse Gas Protocol (GHP)
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Washington DC 20002
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E: Webform <https://bit.ly/43OImVq>
W: <https://ghgprotocol.org>

International Capital Market Association (ICMA)
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W: <https://www.icmagroup.org>

International Lithium Association (ILiA)
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World Business Council for Sustainable Development (WBCSD)
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World Nuclear Association (WNA)
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World Resource Institute (WRI)
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E: Webform <https://bit.ly/43OImVq>
W: <https://www.wri.org>

6. ASX 100 Companies & ESG Rating Score

Company Name	Ticker	Exchange	Sector	Sub sector	MCAP A\$ (m)	ACF ESG Score
Anglogold Ashanti	AGG	ASX	Mining	Metals	10,481	4
Iluka Resources	ILU	ASX	Mining	Metals	3,710	4
Sims	SGM	ASX	Mining	Metals	2,540	4
Champion Iron	CIA	ASX	Mining	Metals	2,350	4
Perseus Mining	PRU	ASX	Mining	Metals	1,710	4
Vulcan Energy Resources	VUL	ASX	Mining	Metals	1,590	4
Regis Resources	RRL	ASX	Mining	Metals	1,530	4
Gold Road Resources	GOR	ASX	Mining	Metals	1,090	4
St Barbara	SBM	ASX	Mining	Metals	965	4
Sandfire Resources	SFR	ASX	Mining	Metals	939	4
Western Areas	WSA	ASX	Mining	Metals	933	4
Jervois Global	JRV	ASX	Mining	Metals	750	4
Westgold Resources	WGX	ASX	Mining	Metals	693	4
Perenti Global	PRN	ASX	Mining	Metals	582	4
Mount Gibson Iron	MGX	ASX	Mining	Metals	529	4
Syrah Resources	SYR	ASX	Mining	Metals	516	4
Neometals	NMT	ASX	Mining	Metals	472	4
SSR Mining	SSR	ASX	Mining	Metals	461	4
Brockman Mining	BCK	ASX	Mining	Metals	427	4
Hastings Technology Metals	HAS	ASX	Mining	Metals	426	4
Macmahon Holdings	MAH	ASX	Mining	Metals	420	4
Aeris Resources	AIS	ASX	Mining	Metals	346	4
Moringa Acquisition	MLD	ASX	Mining	Metals	229	4
Ramelius Resources	RMS	ASX	Mining	Metals	110	4
Liontown Resources	LTR	ASX	Mining	Metals	2,590	3
Nickel Mines	NIC	ASX	Mining	Metals	2,290	3
Coronado Global Resources	CRN	ASX	Mining	Metals	2,270	3
Zimplats Holdings	ZIM	ASX	Mining	Metals	2,220	3
Chalice Mining	CHN	ASX	Mining	Metals	2,140	3
Deterra Royalties	DRR	ASX	Mining	Metals	1,930	3
De Grey Mining	DEG	ASX	Mining	Metals	1,230	3
ioneer	INR	ASX	Mining	Metals	1,230	3
29Metals	29M	ASX	Mining	Metals	1,010	3
IMDEX	IMD	ASX	Mining	Metals	963	3
Boart Longyear	BLY	ASX	Mining	Metals	941	3
West African Resources	WAF	ASX	Mining	Metals	866	3

Company Name	Ticker	Exchange	Sector	Sub sector	MCAP A\$ (m)	ACF ESG Score
Bellevue Gold	BGL	ASX	Mining	Metals	818	3
OM Holdings	OMH	ASX	Mining	Metals	716	3
Lake Resources	LKE	ASX	Mining	Metals	672	3
Core Lithium	CXO	ASX	Mining	Metals	642	3
Grange Resources	GRR	ASX	Mining	Metals	596	3
Adriatic Metals	ADT	ASX	Mining	Metals	576	3
Firefinch	FFX	ASX	Mining	Metals	543	3
Alkane Resources	ALK	ASX	Mining	Metals	518	3
Australian Strategic Materials	ASM	ASX	Mining	Metals	497	3
Emerald Resources	EMR	ASX	Mining	Metals	495	3
Red 5	RED	ASX	Mining	Metals	495	3
Resolute Mining	RSG	ASX	Mining	Metals	469	3
Talga Group	TLG	ASX	Mining	Metals	434	3
DDH1	DDH	ASX	Mining	Metals	427	3
Panoramic Resources	PAN	ASX	Mining	Metals	420	3
Piedmont Lithium	PLL	ASX	Mining	Metals	418	3
Andromeda Metals	ADN	ASX	Mining	Metals	394	3
Aurelia Metals	AMI	ASX	Mining	Metals	389	3
Queensland Pacific Metals	QPM	ASX	Mining	Metals	359	3
Kingsgate Consolidated	KCN	ASX	Mining	Metals	350	3
Centaurus Metals	CTM	ASX	Mining	Metals	339	3
Base Resources	BSE	ASX	Mining	Metals	336	3
Arafura Resources	ARU	ASX	Mining	Metals	333	3
Metals X	MLX	ASX	Mining	Metals	327	3
EcoGraf	EGR	ASX	Mining	Metals	304	3
Magnis Energy Technologies	MNS	ASX	Mining	Metals	302	3
Challenger Exploration	CEL	ASX	Mining	Metals	287	3
GR Engineering Services	GNG	ASX	Mining	Metals	283	3
Poseidon Nickel	POS	ASX	Mining	Metals	282	3
Element 25	E25	ASX	Mining	Metals	278	3
OreCorp	ORR	ASX	Mining	Metals	258	3
Newfield Resources	NWF	ASX	Mining	Metals	256	3
Silver Mines	SVL	ASX	Mining	Metals	245	3
Lotus Resources	LOT	ASX	Mining	Metals	236	3
Tigers Realm Coal	TIG	ASX	Mining	Metals	235	3
Strandline Resources	STA	ASX	Mining	Metals	230	3
BCI Minerals	BCI	ASX	Mining	Metals	228	3
Calidus Resources	CAI	ASX	Mining	Metals	218	3
Northern Minerals	NTU	ASX	Mining	Metals	213	3
Legend Mining	LEG	ASX	Mining	Metals	209	3
Zeta Resources	ZER	ASX	Mining	Metals	207	3

Company Name	Ticker	Exchange	Sector	Sub sector	MCAP A\$ (m)	ACF ESG Score
Argosy Minerals	AGY	ASX	Mining	Metals	238	2
Silver Lake Resources	SLR	ASX	Mining	Metals	1,230	1
AVZ Minerals	AVZ	ASX	Mining	Metals	1,090	1
Sayona Mining	SYA	ASX	Mining	Metals	1,080	1
Capricorn Metals	CMM	ASX	Mining	Metals	829	1
Mincor Resources NL	MCR	ASX	Mining	Metals	615	1
5EA Advanced Materials	5EA	ASX	Mining	Metals	563	1
Develop Global	DVP	ASX	Mining	Metals	439	1
Jupiter Mines	JMS	ASX	Mining	Metals	431	1
Magnetic Resources	MAU	ASX	Mining	Metals	349	1
Genesis Minerals	GMD	ASX	Mining	Metals	309	1
Predictive Discovery	PDI	ASX	Mining	Metals	297	1
Pantoro	PNR	ASX	Mining	Metals	289	1
Rumble Resources	RTR	ASX	Mining	Metals	267	1
Galan Lithium	GLN	ASX	Mining	Metals	265	1
Tribune Resources	TBR	ASX	Mining	Metals	257	1
Vital Metals	VML	ASX	Mining	Metals	242	1
Red Hill Iron	RHI	ASX	Mining	Metals	224	1
Allegiance Coal	AHQ	ASX	Mining	Metals	222	1
DGO Gold	DGO	ASX	Mining	Metals	217	1
Sovereign Metals	SVM	ASX	Mining	Metals	212	1
Morella Corporation	1MC	ASX	Mining	Metals	140	1
Archer Materials	AXE	ASX	Mining	Metals	395	0

Link to ACF webpage: <https://acfequityresearch.com/asx-esg-rating/>

*MCAP data as of February 2023

7. Exhibits

Morningstar / Morgan Stanley Institute for Sustainable Investing approach suggests concern over greenwashing in the fund industry. This is important because it suggests sustainability funds have been misallocated.

The Sustainable Finance Disclosure Regulation (SFDR) is an instrument that obligates ESG disclosures on portfolio / asset managers.

SFDR requires portfolio managers (and others) to use one of three categories to classify their investment products – Article 6 (ESG risks); article 8 (ESG characteristics) and Article 9 (ESG metrics and objectives).

We encourage small and mid-caps to start sharing and setting future metrics as soon as possible on their ESG / Sustainability pathway.

In the exhibits below we illustrate some of the challenges in the ESG / Sustainability market, how funds are defined and tested is everything. Both exhibits 1 and 2 are based upon data from the Global Sustainable Investment Alliance (GSIA) and Bloomberg. In exhibit 2 we have forecast AUM for the GSIA ESG integration screening strategy used by portfolio managers. The GSIA data and Bloomberg data is quite broad and captures all efforts to create AUM that could be classified as attempting to invest in only companies and assets that pass various sustainability criteria or qualify for various sustainability investment strategies. GSIA 2020 data from its biennial review suggests US\$35 trillion of AUM is now using sustainability criteria and investment strategies to make investment decisions.

In the second approach, we forecast ESG AUM using far stricter criteria favoured by Morningstar and Morgan Stanley – in this case less than \$3 trillion of assets under management (AUM) presenting themselves as sustainable investment funds make it past Morningstar's filters and checks. In 2022, Morningstar removed a further 1200 fund products from its ESG/Sustainability data set.

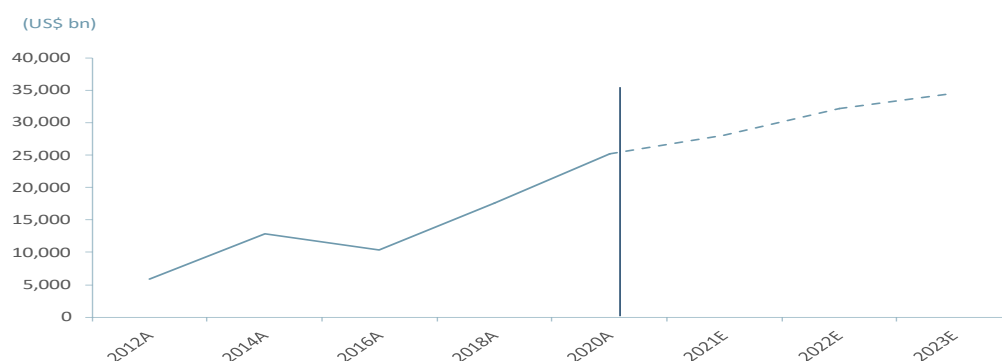
Exhibit 1: GSIA global sustainable funds by region 2014-2020A

Region (US\$ bn)	2014A	2016A	2018A	2020A	Growth 2014-2016	Growth 2016-2018	Growth 2018-2020	CAGR 2014-2020
Europe	10,775	12,040	14,075	12,017	12%	17%	-15%	2%
United States	6,572	8,723	11,995	17,081	33%	38%	42%	17%
Canada	729	1,086	1,699	2,423	49%	56%	43%	22%
Australasia	148	516	734	906	249%	42%	23%	35%
Japan	7	474	2,180	2,874	6671%	360%	32%	173%
Totals	18,231	22,839	30,683	35,301				

Sources: ACF Equity Research Graphics; Global Sustainable Investment Alliance; Bloomberg.

Exhibit 2: GSIA ESG integration screening strategy only – forecast AUM

We expect a significant 'shakeout' for funds, with some newsworthy fines likely to be handed out. This suggests to us that those handing out asset management mandates want ESG / Sustainability investing.

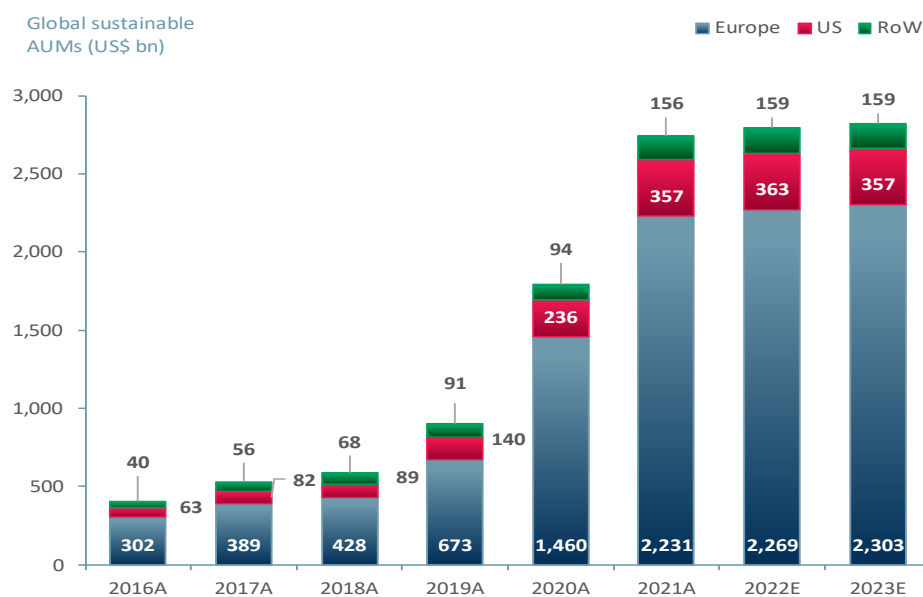


Sources: ACF Equity Research Estimates; Global Sustainable Investment Alliance.

Exhibit 3: GSIA ESG integration screening strategy only - forecast AUM

Range	Current	Forecast High	Forecast Low
2012A	5.9		
2014A	12.9		
2016A	10.4		
2018A	17.5		
2020A	25.2		
2021E	28.1	30.2	26.0
2022E	32.2	36.2	28.2
2023E	34.6	38.7	30.4

Sources: ACF Equity Research Estimates; Global Sustainable Investment Alliance.

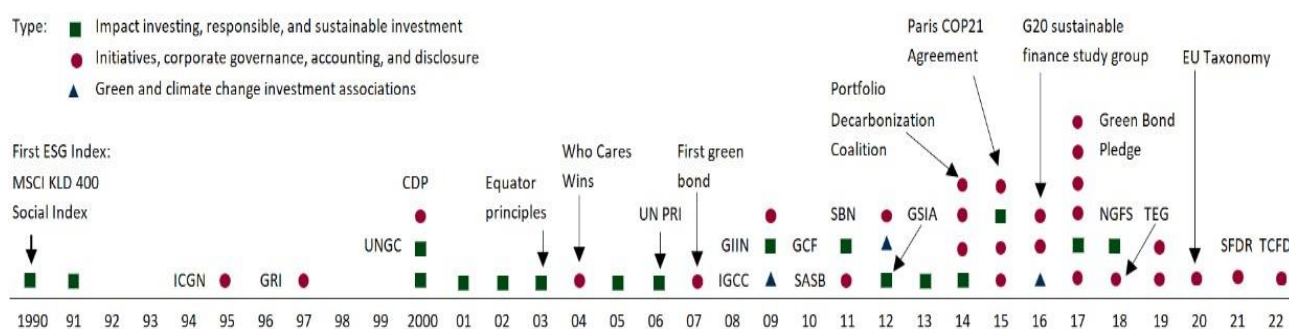
Exhibit 4: ACF forecast sustainable AUMs – Morningstar filters

Sources: ACF Equity Research Forecasts; UNCTAD; Morgan Stanley; Morningstar.

Exhibit 5: 1Q23 Sustainability fund flows using Morningstar filters

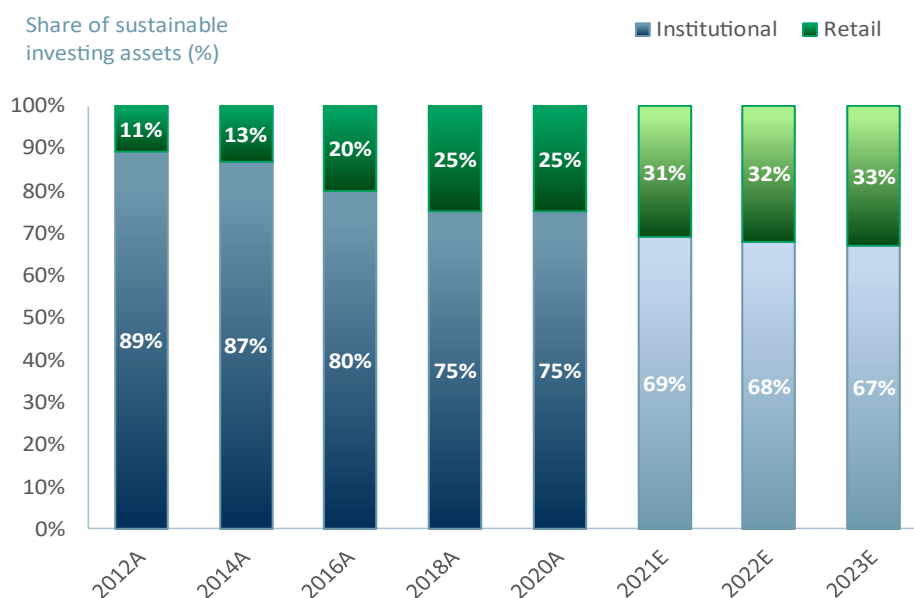
1Q23 Region	Flows	Assets		Funds	
	US\$ bn	US\$ bn	% total	US\$ bn	% total
Europe	32.3	2,296	83.6%	5,410	77.0%
US	-5.2	299	10.9%	638	9.1%
Asia ex-Japan	1.7	63	2.3%	515	7.3%
Australia/New Zealand	0.1	31	1.1%	201	2.9%
Japan	-1.0	26	0.9%	60	0.9%
Canada	1.0	30	1.1%	206	2.9%
Total	28.9	2,745	100%	7,030	100%

Sources: ACF Equity Research Graphics; Morningstar; Morgan Stanley Institute for Sustainable Investing.

Exhibit 6: Evolution of ESG

Sources: ACF Equity Research Graphics; MSCI; market research.

Notes: CDP = Carbon Disclosure Project, COP21 = 21st Conference of the Parties, EU Taxonomy – European Union Taxonomy, GCF = Green Climate Fund, GIIN = Global Impact Investing Network, GRI = Global Reporting Initiative, GSIA = Global Sustainable Investment Alliance, ICGN = International Corporate Government Network, IGCC = Investor Group on Climate Change, NGFS = Network for Greening the Financial System, SASB = Sustainability Accounting Standards Board, SFDR = Sustainable Financial Disclosure Regulation, TCFD = Task Force on Climate-Related Financials Disclosures, TEG = EU Technical Experts Group on Sustainable Finance, UNGCC = UN Global Compact, UN PRI = UN Principles for Responsible Investment.

Exhibit 7: Share of Institutional vs. Retail Investors 2012A-2023E

Range	Institutional		Retail	
	High	Low	High	Low
2021E	86%	79%	29%	26%
2022E	100%	83%	33%	28%
2023E	100%	83%	38%	29%

Sources: ACF Equity Research Graphics; Global Sustainable Investment Alliance.

Exhibit 8: ACF's ESG rating score methodology

Score	Definition
0	The company makes no reference to sustainability or corporate governance anywhere on their website and in any publicly available documents.
1	The company only has a Corporate Governance (CG) statement.
2	The company only has a Corporate Social Responsibility (CSR) statement.
3	The company has a Sustainability/ESG statement/policy.
4	The company has an ESG statement/policy with metrics.

Sources: ACF Equity Research.

*Exhibit 9: Global leading reasons for ESG investing***Leading reasons****Numbers drivers**

An ESG policy provides far greater access to capital and lowers a company's cost of capital

ESG reduces your cost of capital by introducing better discipline - leads to a lower cost of capital (WACC)

ESG improves margins

ESG increases revenue opportunities

Emotional drivers

By not addressing human capital management issues, this will cause a decrease in employee productivity

Millennials believe that if companies care about sustainability they will have improved long term success

Increased interest in ESG = higher demand for stock = higher performance stock = higher valuation

Sources: ACF Equity Research.

Exhibit 10: Global barriers & obstacles to ESG investing 2021

Main barriers to global ESG investing	2019A	2021A
Challenges around data quality and consistency		39%
Inconsistent data across asset classes	32%	38%
Conflicting ESG ratings	27%	28%
Ineffective data for scenario analysis	22%	7%

Main obstacles to broader adoption of ESG investing	2019A	2020A	2021A
Shortage of expertise or qualified staff	27%	30%	37%
Regulatory or legal constraints	22%	25%	32%
Lack of comparability of ESG data across issuers	26%	50%	31%
Lack of attractive investment opportunities	26%	35%	30%
Poor quality or availability of ESG data	22%	25%	25%

Sources: ACF Equity Research Graphics; BNP Paribas; HSBC.

8. Company Reports

The 2-page assessments created for the ten (10) companies below are a combination of interviews held with the companies directly and/or publicly available data.

Where possible an interview was carried out with the company. The reason for this was that we wanted to make sure that we understood the ESG / Sustainability angle from the company's perspective and were then able to showcase that notion accurately in the assessments.

The assessments include the following ten (10) companies with their respective ACF ESG rating score.

Company Name	ACF ESG Score
Predictive Discovery (PDI) – Gold Explorer & Developer	1
Silver Lake Resources (SLR) – Becoming a Leading Intermediate Gold Producer	1
5E Advanced Materials (5EA) – Vertical Integration for Decarbonization	1
Queensland Pacific Metals (QPM) – Critical Minerals Explorer	3
Bellevue Gold (BGL) – The “Green Gold” Miner	3
IMDEX Ltd (IMD) – The Global Technology Solution Provider	3
Perseus Mining (PRU) – The Responsible Gold Miner	4
Neometals Ltd (NMT) – Minerals for Green Energy	4
Vulcan Energy Resources (VUL) – Lithium Producer	4
Hastings Technology Metals (HAS) – Rare Earths Explorer	4

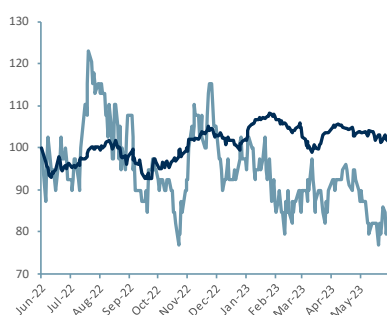
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52 Wk. Lo/Hi

0.15 – 0.25



PDI (lighter line) vs. S&P ASX 200 ESG price relative

Friday, 09 June 2023

Close Price	0.16
52 wk Range Low	0.15
52 wk Range High	0.25
MCAP (m)	278.63
EV (m)	278.91
Index: Public	XASX
Financial YE	30-Jun
Reporting Currency	AUD
Listing Currency	AUD
Business Activity	
Metals & Mining	

Key Metrics

Gross debt (m)	0.30
Cash (m)	0.02
Net Debt (Cash) (m)	0.28
Net Operating Cash (m)	-43.62
Revenue (m)	-0.01
Net Income (loss) (m)	-15.82

Key Ratios

(Net Cash) / Shareholder	0.10%
Equity %	

Mining Sector Research**ASX Market Index****Analyst Team**

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ACF ESG Rating Score: 1

Predictive Discovery (PDI)

Gold Explorer & Developer

Predictive Discovery (ASX: PDI) is a junior explorer/developer with a Tier-1 gold asset Bankan Gold, in Guinea, the largest gold discovery in West Africa since 2012. With a growing resource base, Predictive Discovery's strategy is to bring Bankan into production, as well as identify and develop other potential deposits within its licence in the Siguiri Basin, Guinea. In 2022, Predictive received support from BlackRock - a commitment of A\$20m, part of PDI's larger fund raise (total A\$55m). Predictive Discovery is producing a Responsible Business Report (to be published in 2023) that will be informed by WGCs RGMP, GRI and SASB.

- **ESG** culture: focus on zero harm to people, strict environmental management and sustainable stakeholder value creation;
- **E**: de-risking Bankan via an environmental assessment and the development of action plans;
- **S**: developing comprehensive stakeholder engagement plans + channels for sharing information and raising issues;
- **G**: forming an ESG committee, updating policies and systems, and establishing relationships with Stakeholders.

Predictive Discovery

Company details

<https://www.predictivediscovery.com>

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April 22 Corp Presentation

<https://www.investi.com.au/api/announcements/pdi/a0ff727f-d9f.pdf>

FYE22 Annual Report

<https://www.investi.com.au/api/announcements/pdi/a6c400a5-6e9.pdf>

Predictive Discovery

Predictive (PDI) is at the beginning of its ESG journey but has already started implementing a number of initiatives. The company is upfront with what they are addressing, making their intentions clear on their ESG obligations.

Culture, capacity and expertise

During 2022, PDI made several key appointments in the ESG area - this includes the appointment of an ESG manager with 30+ years' experience in the mining industry, who had recently been leading the environment compliance programme for a major bauxite exporter. PDI is currently forming an ESG committee which will plan a strategy to update its ESG policy to put on the website.

Market and investor reception to ESG plans

In June 2022, PDI announced a placement to raise A\$55m from investors. The placement was well received in the market and attracted institutional and professional investment. It also resulted in BlackRock subscribing to 111.6m ordinary shares (7.05%) at a cost of A\$20m. The participation of BlackRock with its strong ethical and sustainability investment credentials is an endorsement of PDI's commitment and continuing ESG journey.

PDI's ESG roadmap

PDI completed a Rapid Ecological Assessment (REA) on the Bankan Project in 2021, which has informed the scoping of its Environmental and Social Impact Assessment (ESIA), currently in progress. The ESIA will assess Bankan's potential E&S risks and impacts and inform the Environmental and Social Management Plan (ESMP) to manage these potential risks and impacts, as well as cover all aspects of the developing and running of the Bankan mine and associated infrastructure. PDI aims to deliver this environmental study to the Government of Guinea by the end of 2023.

Figure 1 - PDI key responsible development activities

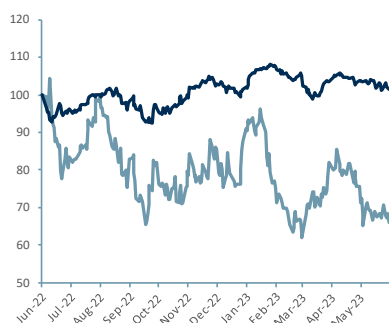
Category	Activity
Overview	Enhanced independent oversight and management control of ESG programmes.
Environmental	De-risking Bankan Gold project via defining environmental (and social) action plans.
Social	Engaging leading sustainability consultancies to ensure best-practice sustainable development.
Governance	Building communication with key government stakeholder groups to ensure alignment on objectives. Engaging with stakeholders to define the sequence of social, administrative and permitting requirements to develop the project.

Sources: ACF Equity Research; Company reports.



52 Wk. Lo/Hi

0.95 – 1.65



SLR (lighter line) vs. S&P ASX 200 ESG price relative

Friday, 09 June 2023

Close Price	3.65
52 wk Range Low	0.95
52 wk Range High	1.65
MCAP (m)	952.99
EV (m)	754.03
Index: Public	XASX
Financial YE	30-Jun
Reporting Currency	AUD
Listing Currency	AUD
Business Activity	
Metals & Mining	

Key Metrics

Gross debt (m)	42.43
Cash (m)	241.39
Net Debt (Cash) (m)	-198.96
Net Operating Cash (m)	182.29
Revenue (m)	619.60
Net Income (loss) (m)	18.39

Key Ratios

(Net Cash) / Shareholder Equity %	-20.88%
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Mining Sector Research**ASX Market Index****Analyst Team**

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ACF ESG Rating Score: 1**Silver Lake Resources (SLR)****Becoming a Leading Intermediate Gold Producer**

Silver Lake Resources (ASX: SLR) is an Australian gold and copper mining and exploration company, with a primary focus on the exploration, development and production of gold resources in the Mount Monger area (W. Australia). SLR's Mount Monger operation consists of five underground gold mines and open pit mines - FYE22 sales of 113,874 koz at A\$2.077/oz. FYE23 estimated M+I+I of 6.8 Moz. SLR is committed to sustainable and responsible mining practices as well as environmental management and community engagement. Silver Lake has implemented initiatives to reduce its environmental impact. SLR reports to the Australian Government's Workplace Gender Equality Agency (WGEA).

- **ESG** culture: committed to responsible and sustainable mining;
- **E**: monitoring and minimizing emissions, conserving water and rehabilitating disturbed areas;
- **S**: engaging the local communities and stakeholders to maintain positive relationships;
- **G**: adopted the Corporate Governance Principals Recommendations published by the ASX Council.

Silver Lake Resources**Company details**

<https://www.silverlakeresources.com.au>

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85 South Perth Esplanade
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Contact details

contact@slrltd.com

2022 Annual Report

<https://www.silverlakeresources.com.au/cproot/275/2/2022-Annual-Report-Text-2022-WEB.pdf>

Silver Lake Resources

SLR is committed to promoting sustainable initiatives for responsible mining. As a publicly listed company, SLR is required to comply with the Workplace Gender Equality Act 2012 (WGEA) and report to the Australian Government's Workplace Gender Equality Agency (WGEA) on its gender equality performance.

SLR has published a code of conduct. The code sets out SLR's principals and standards which they encourage employees to strive towards in their dealings.

Internal due diligence and culture

The company's latest public report, submitted June 2022, shows that the company has made progress in a number of areas related to gender equality, including increasing the representation of women in senior management roles and implementing gender-neutral recruitment and promotion practices. The report also highlights areas for improvement, such as addressing gender pay gaps and increasing the representation of women in technical and operational roles. SLR plans to increase the number of women in male-dominated roles within the organisation and has a formal policy on remuneration.

Health and Safety

SLR is committed to a safe and healthy working environment for all employees and contractors. It has implemented various programs and initiatives to promote employee health and safety and prevent workplace injuries.

Substantial shareholders

SLR has attracted significant shareholders: Van Eck (10.58%), Paradise Investment Management Pty (5.91%) and Dimensional Fund Advisors (5.00%). (28 Sept. 2022)

Energy efficiency

Silver Lake Resources is focused on improving energy efficiency in its operations by implementing energy-saving measures and using renewable energy sources. The company has set targets to reduce its greenhouse gas emissions and minimize its carbon footprint.

Figure 2 - SLR top 10 holders of quoted securities

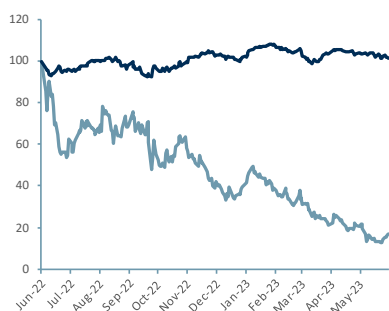
Holder name	Number held	Percentage
HSBC Custody Nominees (Australia) Limited	303,420,442	32.54%
Citicorp Noms Pty Ltd	131,539,139	14.11%
J.P. Morgan Noms Australia Pty Ltd	92,776,948	9.95%
BNP Paribas Noms Pty Ltd	58,620,168	6.29%
BNP Paribas Mos Pty Ltd ACF Clearstream	34,634,883	3.71%
National Mos Ltd	33,946,111	3.64%
HSBC Custody Mos (Australia) Ltd <NT-Commonwealth Super Corp A/C>	13,667,064	1.47%
McCusker Holdings Pty Ltd	12,000,000	1.29%
BNP Paribas Noms Pty Ltd <IM AU Noms Retailclient DRP>	5,441,515	0.58%
Citicorp Noms Pty Ltd <Colonial First State Inv A/C>	4,507,277	0.48%

Sources: ACF Equity Research Graphics; Company reports.



52 Wk. Lo/Hi

0.42 – 3.84



5EA (lighter line) vs. S&P ASX 200 ESG price relative

Friday, 09 June 2023

Close Price	3.65
52 wk Range Low	0.42
52 wk Range High	3.84
MCAP (m)	249.44
EV (m)	249.79
Index: Public	XASX
Financial YE	30-Jun
Reporting Currency	USD
Listing Currency	AUD
Business Activity	
Metals & Mining	

Key Metrics

Gross debt (m)	36.52
Cash (m)	36.17
Net Debt (Cash) (m)	0.35
Net Operating Cash (m)	-29.35
Revenue (m)	N/A
Net Income (loss) (m)	-33.61

Key Ratios

(Net Cash) / Shareholder Equity %	0.14%
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Mining Sector Research**ASX Market Index****Analyst Team**

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ACF ESG Rating Score: 1**5E Advanced Materials, Inc. (5EA)****Vertical Integration for Decarbonization**

5E Advanced Materials (Nasdaq:FEAM, ASX: 5EA) is a boron and lithium miner. Its 5E Boron Americas Complex has US government critical infrastructure. Boron is considered a critical super material thanks to its physical properties: hardness, light weight, heat resistance, anti-microbial and corrosion resistant. Boron is used in many different applications: wind turbines, solar panels, permanent magnets, fertilizers, EV batteries, boron steel chassis, glass, NdFeB motors and ceramics. High quality boron is in high demand due to its uses in the green energy transition (Renewables and EVs) as well as its critical use for US domestic security and food security. ~85% of Boron is produced in Turkey and with a need to diversify supply this gives 5EA a competitive advantage for covering the US market and demand.

- **ESG** culture: incorporating sustainability into everyday decisions for long-term growth;
- **E**: minimizing the environmental/ecological footprint of operations across the entire value chain;
- **S**: focused on community development and knowledge creation to maintain growth of local communities and economies;
- **G**: collaborating in partnerships to advance stakeholder interest and preserve stakeholder value.

5E Advanced Materials**Company details**

<https://5eadvancedmaterials.com/>

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2022 Annual Report

<https://www.investi.com.au/api/announcements/feam/000119312522272744/d412731d10ka.pdf>

5E Advanced Materials, Inc.

5EA is focused on the global energy transition, global decarbonization and net-zero via its Boron+ applications. Its sustainability culture is based on three elements:

- **Innovation** – 5EA is developing advanced technologies for sustainable mining.
- **Collaboration** – Stakeholder collaboration is key. 5EA has contributed to adding new jobs in California and Texas, USA.
- **Sustainability Mindset** – 5EA recycles water and energy, produces Boron+ with a low carbon footprint and utilizes its boron reserves strategically to target energy, transportation, electronics and agricultural sectors.

Products – Boron and lithium

Boron's and lithium's unique properties make them conducive for advanced material applications such as electric vehicles, wind energy and semiconductors. These applications contribute to the United Nations Sustainable Development Goals (UN SDGs)

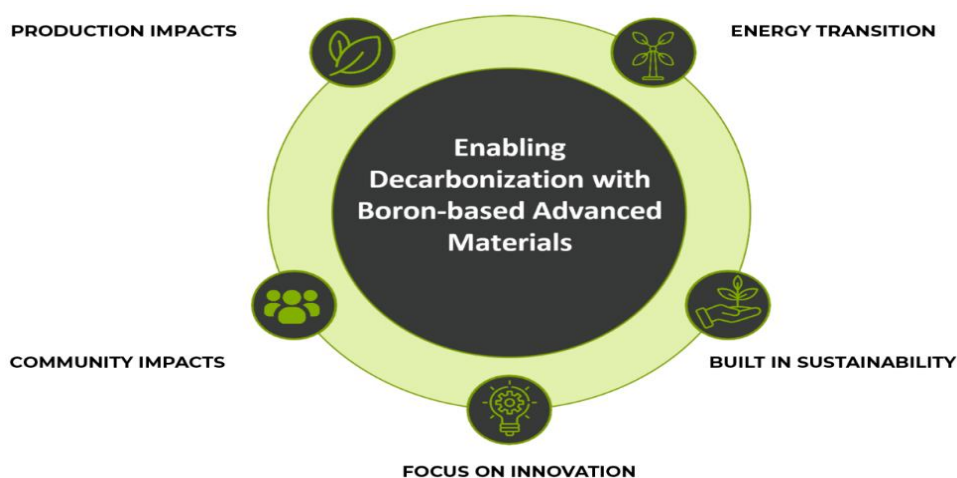
Process

5EA focuses its operations on energy efficiency in order to minimize resource use and disruption of its surrounding environment by in-situ extraction (to lower GHG emissions), water recycling (to minimize consumption), natural heat sources (to lower GHG emissions), integrated derivative production (to increase logistics efficiency and use of energy resources).

People

5EA focuses on partnerships and collaboration via workforce investment (offering personal growth and well-being), knowledge creation (specialized training, technical and research collaborations), community development (job creation, skills training, local infrastructure to create opportunities for suppliers, partners and local businesses).

Figure 3 - 5EA contribution to UN SDGs

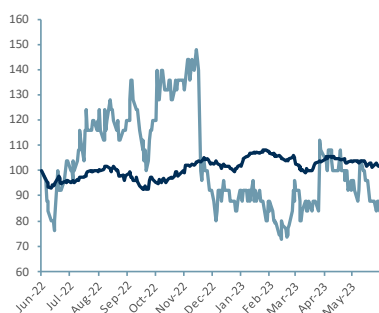


Sources: ACF Equity Research Graphics; Company reports.



52 Wk. Lo/Hi

0.09 – 0.20



QPM (lighter line) vs. S&P ASX 200 ESG price relative

Friday, 09 June 2023

Close Price	0.17
52 wk Range Low	0.09
52 wk Range High	0.20
MCAP (m)	183.37
EV (m)	138.99
Index: Public	XASX
Financial YE	30-Jun
Reporting Currency	AUD
Listing Currency	AUD

Business Activity

Metals & Mining

Key Metrics

Gross debt (m)	0.54
Cash (m)	44.92
Net Debt (Cash) (m)	-44.38
Net Operating Cash (m)	-32.85
Revenue (m)	N/A
Net Income (loss) (m)	-38.37

Key Ratios

(Net Cash) / Shareholder Equity %	-24.20%
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Mining Sector Research**ASX Market Index****Analyst Team**

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ACF ESG Rating Score: 3**Queensland Pacific Metals (QPM)****Critical Minerals Explorer**

Queensland Pacific Metals (ASX: QPM) is a junior explorer of critical metals (nickel [Ni], cobalt sulfate [CoSO₄x], high-purity alumina [Al₂O₃], haematite [Fe₂O₃]) for lithium-ion batteries and electric vehicles. QPM is focused on its 100% owned Townsville Energy Chemicals Hub (TECH) project (in North Queensland) – a modern, sustainable battery metals refinery. A pre-Feasibility was completed in 2020 and a Definitive FS is scheduled for 4Q22. Once operational, TECH will be carbon negative, sustainable, and a clean and green production facility as per its ISO-compliant assessment. QPM will issue a sustainability report with metrics to showcase its efforts in reducing GHG emissions, by 2H23, and is working towards achieving the Responsible Minerals Assurance Process (RMAP) certificate and Nickel Mark certificate.

- **ESG** culture: solid ESG agenda that attracts large-caps (e.g. GM) focused on tracking the entire value chain;
- **E**: ISO compliant – Independent Life Cycle Assessment verification completed;
- **S**: the 'economy of a village' drives sustainability;
- **G**: ESG-focused board making ESG a board requirement.

Queensland Pacific Metals**Company details**<https://qpmetals.com.au/>

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ESG References<https://qpmetals.com.au/sustainability/esg/>**FYE22 Annual Report**<https://wcsecure.weblink.com.au/pdf/QPM/02574824.pdf>

Queensland Pacific Metals

Queensland (QPM) has a top down ESG approach that starts at the board level and trickles down through to management, employees, the community and the entire value chain. To avoid the suggestion of greenwashing, QPM is adamant about obtaining and maintaining environmental compliance certificates such as the ISO 14040 Series.

QPM is also focused on the development and use of new technologies, including blockchain, in order to track the entire supply chain.

Market interest and investment

In Oct 2022, QPM announced a binding off-take agreement and investment agreement with General Motors Holding LLC (NYSE:GM) for a conditional commitment (equity subscription) of up to US\$ 69m. GM is granted the right to purchase all uncommitted nickel and cobalt sulfate produced in the first 15 years of the TECH Project phase 1. GM's offtake P1 rights are extended to the life of project and GM is granted the right to purchase 100% of nickel and cobalt sulfate during the P2 expansion of the project.

Waste management

QPM's TECH Project has zero solids discharge – it is a zero-process liquid discharge plant. The project does not have a tailings dam. QPM uses a patented recovery and recycling DNi Process™ (owned by Altilium Group), which is an environmentally friendly process that extracts nickel, cobalt and other precious metals from the laterite ore (surficial, weathered rinds formed on ultramafic rocks that make up ~73% of the work nickel resources). The DNi Process™ boasts >98% nitric acid recycling.

Carbon negative

In Nov 2021, QPM had an ISO-compliant (International Organization for Standardization) Life Cycle Assessment completed by Minviro Ltd (a UK-based company that provides mining & metals companies with an understanding of their environmental impacts). The assessment highlighted that the TECH project is net-zero and significantly carbon negative, estimated to reduce carbon emissions by 238 kt p.a..

Figure 4 - QPM TECH Project credentials

Category	Credentials
CO2 emissions	Reducing AUS GHG emissions by 238,000 tons CO2e ISO - compliant
Environment	Fostering and building a high-performance culture Inclusive and actively building a diverse workforce
Waste	All major metals in laterite ore extracted and refined Project residue ~20% of ore mass
Community	Working with traditional land owners Community sponsorship for health and exercise

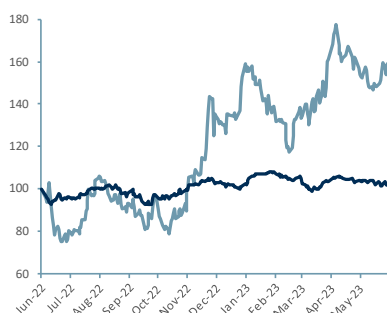
Sources: ACF Equity Research Graphics; Company reports.



BELLEVUE
GOLD

52 Wk. Lo/Hi

0.62 – 1.54



BGL (lighter line) vs. S&P ASX 200 ESG price relative

Friday, 09 June 2023

Close Price	3.65
52 wk Range Low	0.62
52 wk Range High	1.54
MCAP (m)	1,486.00
EV (m)	1,400.63
Index: Public	XASX
Financial YE	30-Jun
Reporting Currency	AUD
Listing Currency	AUD

Business Activity

Metals & Mining

Key Metrics

Gross debt (m)	35.02
Cash (m)	120.39
Net Debt (Cash) (m)	-85.37
Net Operating Cash (m)	-12.70
Revenue (m)	0.89
Net Income (loss) (m)	-22.84

Key Ratios

(Net Cash) / Shareholder Equity %	-5.74%
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Mining Sector Research

ASX Market Index

Analyst Team

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mining@acfequityresearch.com

ACF ESG Rating Score: 3

Bellevue Gold (BGL)

The “Green Gold” Miner

Bellevue Gold (ASX: BGL) is an Australian gold explorer expanding its current high-grade gold resource. The company’s primary asset, the Bellevue Gold Project (BGP), has a mineral resource of 9.8Mt @ 9.9 g/t and is expected to become one of Australia’s top 20 gold mines in production. Bellevue’s first sustainability report (2020) was one of the first pre-production, pre-revenue published by an ASX company. Its 2022 report highlights the intention to become Australia’s first “Green and Gold” miner, achieving net zero emissions by 2026. Bellevue is aligned with the UNSDG’s and TCFD recommendations and has added GRI and SASA reporting framework to expand transparency.

- **ESG** culture: dedicated to building an industry-led company, with ESG at the centre;
- **E**: will have an 80% renewable energy plant in place to power the Bellevue Gold Project in the 2H2023;
- **S**: annual employee incentive programmes in place; aboriginal employment above the industry average;
- **G**: in 2022 met all 35 recommendations under the eight ASX Corporate Governance Principals and Recommendations.

Bellevue Gold

Company details

<https://www.bellevuegold.com.au>

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West Perth, WA, Australia 6005
+61 08 6373 9000

Contact details

Luke Gleeson, Chief Sustainability Office
lgleeson@bellevuegold.com.au

2022 Sustainability Report

<https://wcsecure.weblink.com.au/pdf/BGL/02623800.pdf>

Bellevue Gold

BGL is committed to promoting ESG initiatives and sees it as a cornerstone of the company's operations. Its commitment attracts like-minded employees and business partners to further expand operations.

Internal due diligence and culture

BGL set out its PACE core values at its first strategy meeting in 2020: (1) passion, (2) accountability, (3) care, and (4) excellence. BGL has monthly on-site meetings to discuss sustainability with employees and places great emphasis on diversity and inclusion for all.

Influencing the supply chain

BGL is setting up a Supplier Code of Conduct to set out the company's expectations from suppliers based on BGL's ESG principles. For a recent power supply contract, all tenderers were asked to complete a Modern Slavery Self-Assessment Questionnaire to identify if solar panels could be sourced with a low risk of modern slavery.

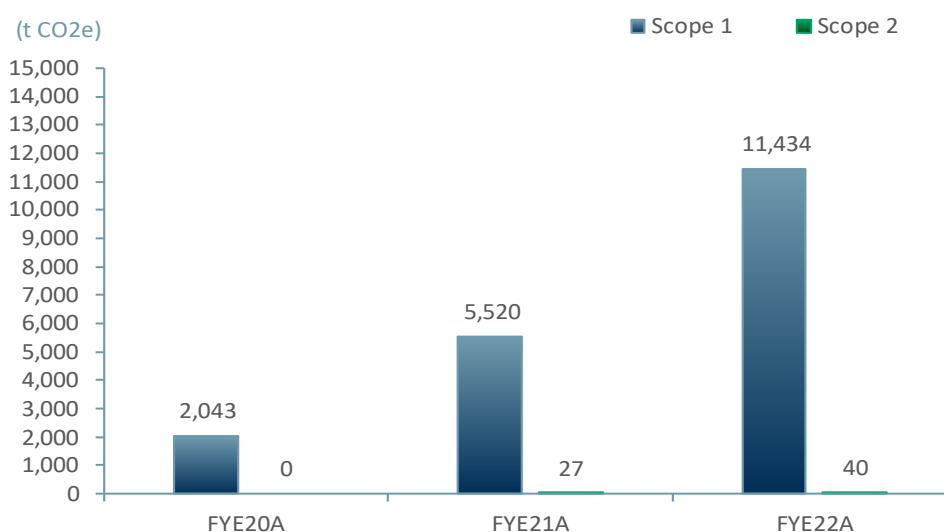
Market and investor reception

BGL's ESG plans have been warmly received by the market and investors. This is endorsed by BlackRock, Bank of Nova Scotia and Van Eck's substantial investments in the company. Their holdings represent ~35% of BGL's issued equity.

Forecasting emissions

BGL does not currently report on Scope 3 but recognizes the importance of reducing these emissions through a successful carbon reduction policy. BGL has engaged energy and carbon strategists Energetics to advise on Scope 3. Although not yet in production, it is forecasted that Bellevue Gold will have the lowest carbon intensity versus other Australian gold mines, the lowest Scope 1 and Scope 2, and the cleanest power supply.

Figure 5 - BGL GHG emissions FYE20-22A



Sources: ACF Equity Research Graphics; Company reports.

Notes: Scope 1 is based on site usage (principally diesel) and Scope 2 is for the Perth office's usage.



52 Wk. Lo/Hi

1.61 – 2.64



IMD (lighter line) vs. S&P ASX 200 ESG price relative

Friday, 09 June 2023

Close Price	3.65
52 wk Range Low	1.61
52 wk Range High	2.64
MCAP (m)	947.73
EV (m)	947.85
Index: Public	XASX
Financial YE	30-Jun
Reporting Currency	AUD
Listing Currency	AUD
Business Activity	
Metals & Mining	

Key Metrics

Gross debt (m)	45.00
Cash (m)	44.88
Net Debt (Cash) (m)	0.12
Net Operating Cash (m)	0.00
Revenue (m)	372.85
Net Income (loss) (m)	43.04

Key Ratios

(Net Cash) / Shareholder Equity %	0.01%
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Mining Sector Research**ASX Market Index****Analyst Team**

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mining@acfequityresearch.com

ACF ESG Rating Score: 3**IMDEX Limited (IMD)****The Global Mining Technology Solution Provider**

IMDEX Limited (ASX: IMD) is a global mining technology company that provides advanced solutions to the mineral exploration and mining industry. IMD's products include fluid additives, downhole instrumentation and software solutions for data management and analysis. Its technologies are designed to improve efficiency and accuracy of the mineral exploration and mining processes, reduce costs and enhance safety and sustainability. IMD has a strong commitment to ESG principles and recognizes that the mining industry has a significant impact on the environment and local communities. IMD is a member of the International Council on Mining and Metals (ICMM) and the Global Mining Guidelines Group (GMG), which promote best practices and sustainable development in the mining sector.

- **ESG** culture: maintaining a low carbon footprint via an environmental policy, a Procurement Policy, & an ESG committee;
- **E**: limiting its environmental impact by reducing Scope 1 & 2 GHG emissions, water usage and waste generation via its technology;
- **S**: diversity - established the GEDx Committee & evolved the Women-EQ program;
- **G**: managing risks of its global business; IMD's ESG Committee will begin reporting to the board in FY2024.

IMDEX Ltd**Company details**

<https://www.imdexlimited.com/>

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Kym Clements, Investor Relations
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2022 Sustainability Report

<https://www.imdexlimited.com/media/investors/IMDEX-FY22-Annual-Report.pdf>

IMDEX Limited

IMD is committed to promoting ESG initiatives and has released two Sustainability reports – in 2021 and 2022. The company is also committed to targeted R&D combined with geoscience to enable sustainable mining practices for its clients.

Internal due diligence and culture

While IMD is in its early stages of Sustainability reporting (its first report was published in 2021), the company is taking several steps to enhance company disclosure. **In FY23 the ESG Committee will become a part of the Audit, Risk and Compliance Committee. In FY24 the ESG Committee will begin reporting to the board.**

Influencing the supply chain

IMD has a global and complex process for its products. Raw materials, components, finished products and business support are delivered via supply chains in North & South America, Europe, Africa and Asia Pacific. IMD’s Supplier Code of Conduct sets out the company’s minimum expectations from its suppliers, their subsidiaries and subcontractors. All suppliers must comply with human rights obligations under the Universal Declaration of Human Rights and modern slavery acts.

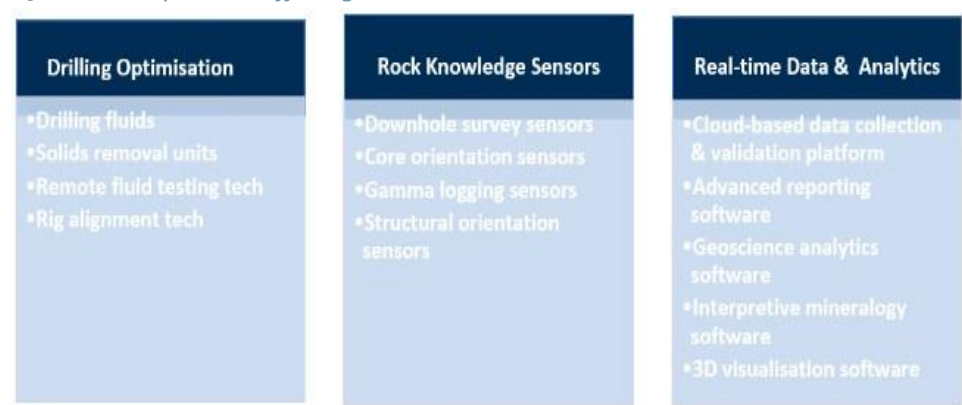
Keeping the IMDEX team safe

Health, Safety and Wellbeing are a company priority. IMD’s Quality, Health, Safety and Environment (QHSE) standards cover all individuals at all locations. Its 6 largest sites are ISO 3001:2015 and ISO 45001:2018 certified. The IMDEX Academy is an online remote training program for employees and clients that cover an array of Health, Safety & Hazard requirements.

Forecasting emissions

IMD is currently capturing its Scope 1 and Scope 2 GHG emissions. These will begin to be reported on in the FY2023 Sustainability Report.

Figure 6 - IMD product offering

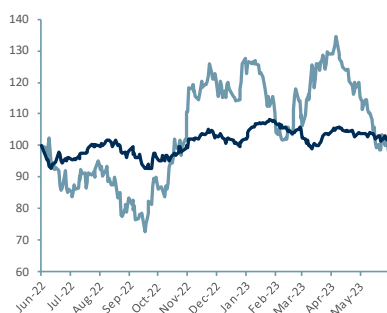


Sources: ACF Equity Research Graphics; Company reports.



52 Wk. Lo/Hi

1.34 – 2.51



PRU (lighter line) vs. S&P ASX 200 ESG price relative

Friday, 09 June 2023

Close Price	3.65
52 wk Range Low	1.34
52 wk Range High	2.51
MCAP (m)	2,482.90
EV (m)	2,228.04
Index: Public	XASX
Financial YE	30-Jun
Reporting Currency	AUD
Listing Currency	AUD

Business Activity

Metals & Mining

Key Metrics

Gross debt (m)	4.06
Cash (m)	258.92
Net Debt (Cash) (m)	-254.86
Net Operating Cash (m)	576.80
Revenue (m)	1,240.00
Net Income (loss) (m)	302.92

Key Ratios

(Net Cash) / Shareholder Equity %	-10.26%
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Mining Sector Research**ASX Market Index****Analyst Team**

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ACF ESG Rating Score: 4

Perseus Mining (PRU)

The Responsible Gold Miner

Perseus Mining (ASX & TSX: PRU) is a mid-cap Australian based company engaged in gold production, mineral exploration, and gold project development in the African region of Ghana and Cote d'Ivoire. PRU recently acquired Orca Gold Inc. and now owns 70% of the Block 14 Development Project in Sudan. PRU's objective is to produce ~500,000 ounces of gold per year with a cash margin no lower than US \$400/oz. In 2022, PRU reported revenues of US \$1,125m (vs. \$680m in 2021) with operating profits of US \$350m (vs. \$199m in 2021). In 2019, PRU published its first consolidated Sustainability Report aligned to key reporting frameworks (GRI, TCFD & IFC).

- **ESG** culture: a strong and deeply held belief that responsible gold mining can produce a sustainable environmental future;
- **E**: further assessment of the impact of climate change across PRU's operation has identified additional routes for emission reduction;
- **S**: the implementation of a social performance framework – linked to host countries UNSDG programs;
- **G**: continues to make significant progress by its governance framework in line with the World Gold Council.

Perseus Mining

Company details
<https://www.perseusmining.com>

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Contact details

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2022 Sustainability Development Report

<https://www.perseusmining.com/wp-content/uploads/2022/10/Perseus-2022-Sustainable-Development-Report-1.pdf>

Sustainable Mining Approach

<https://www.perseusmining.com/sustainable-mining-sustainable-returns/>

Perseus Mining

PRU's sustainability agenda continues to strengthen and evolve alongside its expanding operations. Its wide-ranging efforts and engagement with local communities and host governments creates shared sustainable values for all.

Internal due diligence and culture

Sustainability is deeply rooted in PRU's culture and operations driven by CEO Jeff Quartermaine and PRU's Group General Manager for Sustainability that oversees and assists operations to drive social and environmental performance. PRU has a company value policy, a code of conduct and sustainability policies in place. The main principals are Teamwork, Integrity, Commitment and Achievement.

Influencing the supply chain

PRU has 1,200+ employees and 2,700 contractors across operations and works with 1,000+ suppliers who provide services and products in Africa, Australia, Europe and NA - putting PRU in a strong position to influence the supply chain. All suppliers are engaged through contracts and frameworks aligned with PRU's values. In 2022, PRU released its first Modern Slavery statement to address potential human rights risks.

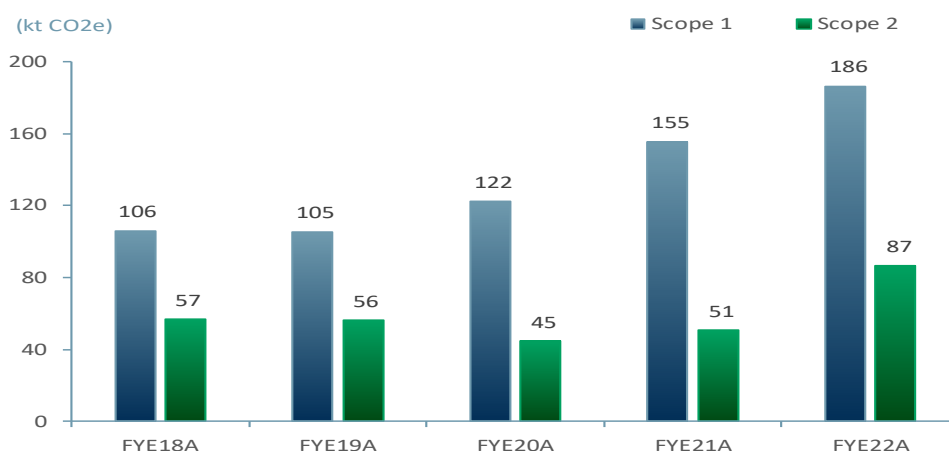
Economic contribution

A key element of PRU's commercial and social operations is to give back to the community. PRU strives to be a partner of choice for host governments and communities by having impactful and uplifting local engagement and open and constructive relationships. PRU does not make political contributions and does not participate in the activities of political parties. In FYE22, PRU's reported its economic contribution to Ghana and Cote d'Ivoire as US \$498m.

Forecasting emissions

PRU engages third-party assurance providers to examine its sustainability and management systems every 2-3 years and assess its commitments and actions.

Figure 7 - PRU GHG emissions FYE18-22A



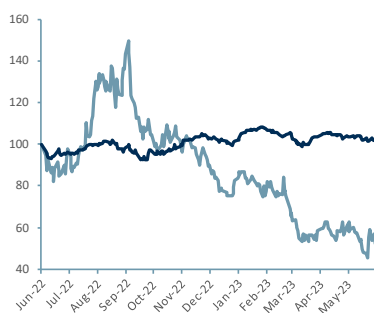
Sources: ACF Equity Research Graphics; Company reports.

Notes: Yaouré transitioned into development phase in 2020, driving Scope 1 and 2 emissions increase.



52 Wk. Lo/Hi

0.48 – 1.64



NMT (lighter line) vs. S&P ASX 200 ESG price relative

Friday, 09 June 2023

Close Price	0.56
52 wk Range Low	0.48
52 wk Range High	1.64
MCAP (m)	306.77
EV (m)	263.73
Index: Public	XASX
Financial YE	31-Dec
Reporting Currency	ASX
Listing Currency	ASX

Business Activity

Metals & Mining

Key Metrics

Gross debt (m)	1.12
Cash (m)	44.16
Net Debt (Cash) (m)	-43.04
Net Operating Cash (m)	-24.48
Revenue (m)	N/A
Net Income (loss) (m)	-21.21

Key Ratios

(Net Cash) / Shareholder Equity %	-14.03%
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Mining Sector Research**ASX Market Index****Analyst Team**

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ACF ESG Rating Score: 4**Neometals Ltd (NMT)****Minerals for Green Energy**

Neometals (ASX & AIM: NMT) is an emerging, sustainable battery materials producer with operations in Australia, Europe, and North America. NMT has three mineral processing technologies that support decarbonization and the green energy transition: 1) Lithium-ion Battery Recycling, 2) Vanadium Recovery – from steel waste, and 3) Lithium Chemicals (ELi®) – converting lithium salt into lithium hydroxide. NMT has a sustainability working group with an official board, risk and sustainability committee. ESG is also a rolling agenda item for every meeting at the board level. In 2022, NMT published its third sustainability report with metrics and its climate risk evaluation is aligned with TCFD guidelines.

- **ESG** culture: sustainability = integral part of day-to-day operations;
- **E**: LCA (Life Cycle Analysis) across all projects = transparency;
- **S**: emphasis on human capital - employee wellbeing and talent development programmes in place;
- **G**: ahead of target - FYE22A 46% of new appointments were female.

Neometals Ltd**Company details**
<https://www.neometals.com.au>

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Jeremy McManus, IR jmcmamus@neometals.com.au

2022 Sustainability Report

<https://www.neometals.com.au/wp-content/uploads/2022/09/NM2494-sustainability-report-2022-WEB.pdf>

May 2023 Greener Battery Materials Presentation

<https://www.neometals.com.au/wp-content/uploads/2023/05/20230502-Corporate-Presentation-FWeb.pdf>

Neometals Ltd

NMT recognises that climate change is one of the most urgent challenges the world faces and is committed to reducing consumption of raw materials in the electric vehicle (EV) and green energy space by supplying recycled materials as well as battery raw materials produced with decarbonisation and the circular economy borne in mind.

Internal due diligence and culture

NMT appointed an ESG Manager in 2022 to focus on its sustainability pillars: Ethics & Accountability, Community Benefit, People and Environmental Care. In 2021, NMT conducted a comprehensive materiality assessment to engage the importance of specific ESG issues to its stakeholders and employees. NMT's management remuneration is linked to its ESG achievements.

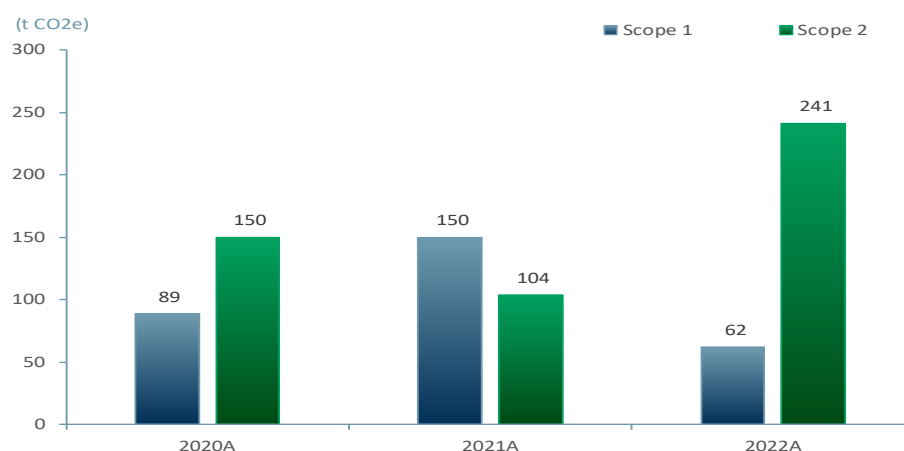
Influencing the supply chain

NMT is strategically well positioned to meet the growing demand for environmentally and ethically sourced battery materials across the supply chain. NMT is developing a supplier code of conduct – it collaborates with suppliers who share its ESG commitment, and will begin a supplier due diligence process in 2Q23 that involves risk screening of its suppliers and customers.

NMT partnerships

In Jul 2020, NMT established a JV (Primobius GmbH) with engineering firm SMS group to commercialise NMT's proprietary lithium battery recycling process and in 2021 commissioned a lithium-ion battery (LIB) recycling demonstration plant (DP) in Hilchenbach, Germany. In May 2022, NMT's JV (Primobius) entered an agreement with Mercedes-Benz (XETRA: MBG.DE) recycling subsidiary LICULAR GmbH to design and build a LIB recycling plant in Kuppenheim, S. Germany. NMT also has partnerships in its vanadium recovery business (H2 Green Steel) and its lithium chemical business where its technology is commercialised via a 70% owned JV partnered with Portugal's largest chemical company (Bondalti).

Figure 8 - NMT GHG emissions FYE20-22A



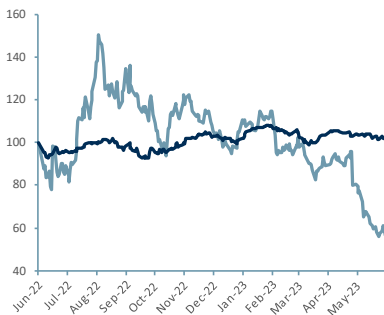
Sources: ACF Equity Research Graphics; Company reports.

Notes: Results of the LCA study are pending and will aim to identify further areas to reduce GHG from operations.



52 Wk. Lo/Hi

A\$3.50 – 9.88



VUL (lighter line) vs. S&P ASX 200 ESG price relative

Friday, 09 June 2023

Close Price	\$7.36
52 wk Range Low	\$3.50
52 wk Range High	\$9.88
MCAP (m)	\$598.35
EV (m)	\$425.93
Index: Public	XASX
Financial YE	30-Jun
Reporting Currency	EUR
Listing Currency	AUD

Business Activity

Metals & Mining

Key Metrics

Gross debt (m)	€ 3.00
Cash (m)	€ 175.42
Net Debt (Cash) (m)	-€ 172.42
Net Operating Cash (m)	-€ 14.84
Revenue (m)	€ 14.22
Net Income (loss) (m)	-€ 26.90

Key Ratios

(Net Cash) / Shareholder Equity %	-28.82%
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Mining Sector Research**ASX Market Index****Analyst Team**

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ACF ESG Rating Score: 4**Vulcan Energy Resources (VUL)****Lithium Producer**

Vulcan Energy Resources (ASX & FSE: VUL) founded in 2018, aims to decarbonise lithium production through developing the world's first carbon neutral, zero fossil fuels business, with the co-production of renewable geothermal energy on a mass scale. It will do this through its unique flagship Zero Carbon Lithium™ Project, and its renewable energy and heat businesses. VUL estimates production by late 2024/early 2025, with ESG at the forefront of the company's ideas, customs, and social behaviour. VUL also has an Audit, Risk and ESG committee, and published its first stand-alone Sustainability Report in 2022. Vulcan aims to continue expanding its ESG data reporting to include year on year comparisons, as the company scales up to commercial operations and beyond.

- **ESG** culture: future-focused and forward thinking, committed to a net Zero -Carbon future with a course of actions to achieve this;
- **E**: signed up to the UN Global Compact 10 principals early 2022;
- **S**: key performance indicators for ESG have been implemented within the company;
- **G**: gender and diversity targets set with currently over 30% female.

Vulcan Energy Resources**Company details**
<https://v-er.eu>

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Contact details

Storm Taylor, ESG Lead

staylor@v-er.eu
2022 Sustainability Report
<https://www.investi.com.au/api/announcements/vul/691db3f5-fc0.pdf>
2022 Sustainability & ESG Framework
https://v-er.eu/wp-content/uploads/2022/06/FINAL-VEL_220607_ESG-Framework-v244.pdf

Vulcan Energy Resources

For a relatively new company not yet in full production, VUL has put climate and environmental issues at the forefront of its journey - engaging with a number of different industry experts in ESG to help achieve its short- and medium-term ambitions.

Internal due diligence and culture

VUL was created with the decarbonization of the electric vehicle industry in mind. The drive to be sustainable and environmentally focused began with the founder Dr Francis Wedin and is centred around three key themes: **(1)** improving the quality of life for people and planet, **(2)** maximising shareholder returns without compromising the needs of future generations, and **(3)** sustainable innovation and excellence in execution. VUL has appointed an ESG Lead to be fully responsible and focused on ESG and sustainability. This role includes reporting what VUL is doing to external markets and working with the team to drive ESG initiatives and focus on collaborative effects.

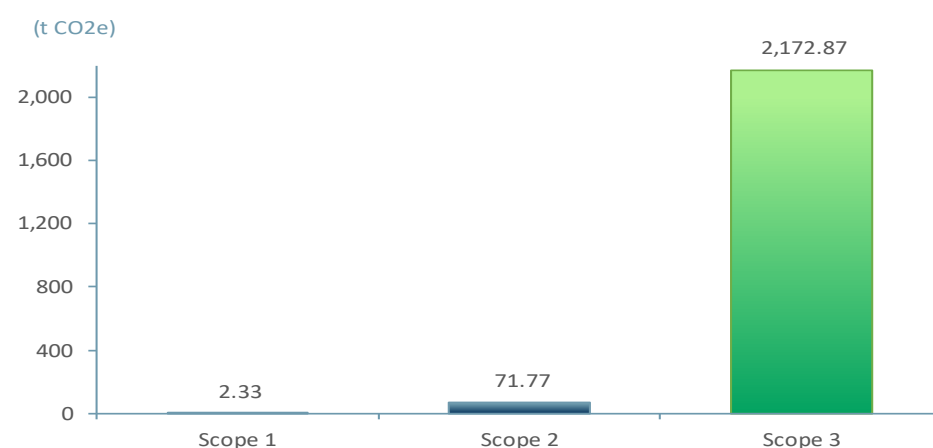
Influencing the supply chain

VUL is well placed to influence the supply chain in the future. The company has already entered into a binding offtake agreement with important auto manufacturers including Renault Group, Volkswagen Group and Stellantis, including having the world's first upstream investment by a top-tier automaker into a listed lithium company (Stellantis) and signing a heat offtake agreement with MVV for the city of Mannheim.

Forecasting emissions

VUL's emissions have been scored in accordance with GHG rules covering Scope 1, Scope 2, and Scope 3 emissions. The organization is carbon neutral certified for 2021 and has commissioned an external lifecycle assessment for its lithium product.

Figure 9 - VUL GHG emissions 2021A



Sources: ACF Equity Research Graphics; Company reports.

Notes: Natur3Lich Insheim is not included in the 2021 Scope as it was acquired outside the calendar year.



52 Wk. Lo/Hi

1.34 – 5.49



HAS (lighter line) vs. S&P ASX 200 ESG price relative

Friday, 09 June 2023

Close Price	3.65
52 wk Range Low	1.34
52 wk Range High	5.49
MCAP (m)	180.99
EV (m)	163.76
Index: Public	XASX
Financial YE	30-Jun
Reporting Currency	AUD
Listing Currency	AUD

Business Activity

Metals & Mining

Key Metrics

Gross debt (m)	151.88
Cash (m)	169.11
Net Debt (Cash) (m)	-17.23
Net Operating Cash (m)	-14.92
Revenue (m)	2.13
Net Income (loss) (m)	-13.57

Key Ratios

(Net Cash) / Shareholder Equity %	-9.52%
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Mining Sector Research**ASX Market Index****Analyst Team**

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ACF ESG Rating Score: 4

Hastings Technology Metals (HAS)

Rare Earths Explorer

Hastings Technology Metals Ltd. (ASX: HAS) is an Australian resources company with two rare earths projects in W. Australia: Yangibana and Brockman. The Yangibana deposits contain Neodymium (Nd), Praseodymium (Pr), Dysprosium (Dy) and Terbium (Tb); all used in permanent magnets. HAS released its FYE22 Climate Change and Sustainability reports aligned with TCFD & GRI, respectively with metrics on Scopes 1 & 2 for Yangibana - currently in the construction phase with first production expected in 2024/25E. The company's reports provide near-term targets for current and future GHG emissions, showcasing HAS' transparency and accountability.

- **ESG** culture: top-down approach and inclusive of everyone in the organisational food chain;
- **E**: annual GHG emissions measurements in accordance with National Greenhouse and Energy Reporting Act 2007;
- **S**: supplier code of conduct promoting transparency along the supply chain and managing risks;
- **G**: board approval to set diversity targets and an increase of the number of women on the board (women in leadership is at 37%).

Hastings Technology Metals

Company details
<https://hastingstechmetals.com/>

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Lisa.McGrath@hastingstechmetals.com

2022 Sustainability Report
<https://hastingstechmetals.com/investor-relations/quarterly-reports-2/>
2022 Climate Change Report
<https://hastingstechmetals.com/investor-relations/quarterly-reports-2/>

Hastings Technology Metals Ltd

Hastings' ESG approach is to be transparent and set targets to map out emissions ahead of time. HAS is a leading junior resources company on the ESG pathway by reporting ESG performance metrics including GHG emissions even though HAS is still in the development and construction stage.

Internal due diligence and culture

Hastings has produced its FYE22 Sustainability report with metrics. All of its policies have gone through a review in 2022, recommended for approval by the relevant subcommittee of the Board and then approved by the board. Each policy is assigned a manager to oversee implementation programs, e.g., anti-bribery and corruption is under legal counsel, human rights is under the HR manager. Once approved, the policies were circulated to the entire organisation. This internal practice ensures that all of management have reviewed the policies and individuals in the organisation are given the information and tools to adhere to the company's ESG culture, which drives its sustainability mandate. Organisational involvement helps build an ESG culture in the company.

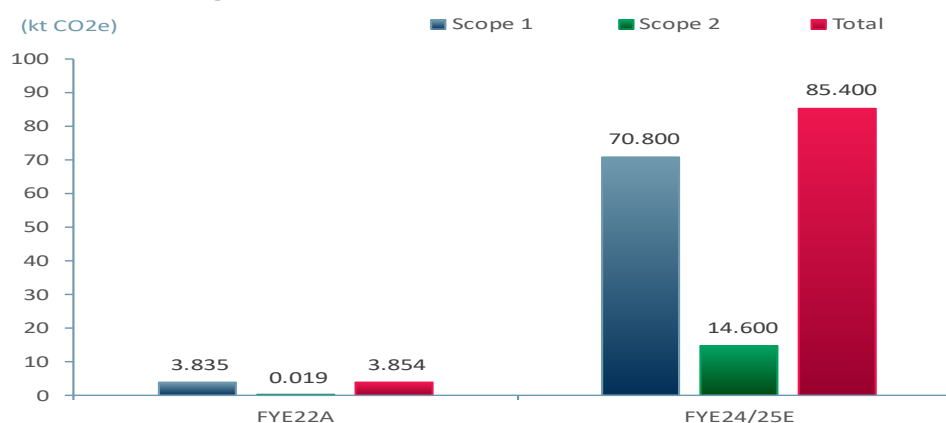
Influencing the supply chain

Hastings recently released a supplier code of conduct with a focus on instilling social transparency along the supply chain. HAS' ESG approach can encourage small/medium suppliers/operators to align themselves with the company's culture, enhancing their own transparency and accountability whilst mitigating risks.

Forecasting emissions

HAS reports on Scopes 1 and 2 emissions for its operational Yangibana project (exhibit 1). Scopes 1 & 2 are forecasted to increase to 85.400kt in FYE24/25E up from 3.854kt in 22A (1 kilo ton = 1.016 metric tons) due to the project transitioning from construction to operations. HAS will continue to measure its GHG emissions annually in accordance with the National Greenhouse and Energy (NGER) Reporting Act 2007 and the NGER (Measurement) Determination 2008.

Figure 10 - HAS Yangibana GHG emissions FYE22A & FYE24/25E



Sources: ACF Equity Research Graphics; Company reports.

Notes: FYE24/25E Scope 1 includes Onslow plant.

9. Glossary

The glossary below contains a selection of terms found in this document or that are common or key to discussions about ESG.

AUM	Assets Under Management – Total market value of all financial assets that a financial institution (e.g. mutual fund, venture capital, or broker) manages.
Biodiversity	Biodiversity is the variety of life on Earth – The different animals, plants and micro-organisms, their genes and the ecosystems in which they live.
CDP	Carbon Disclosure Project - UK based organisation that supports companies and cities in making environmental reporting a business norm.
COP21	21 st Conference of the Parties (COP) – Paris climate conference that took place in 2015 and established the agreement to keep global temperature well below 2°C.
EIB	European Investment Bank – Publicly owned financial institution with shareholders from the EU member states.
ESG	Environmental, Social, and Governance – Metrics that measure the sustainability of a company or business.
FIs	Financial Institutions - Regulated institutions setup to control money supply in markets. (e.g. commercial and investment banks, brokerage firms, insurance companies, and asset management funds.)
GBP	Green Bond Principles – Clarify the approach to Green Bond issuances.
GIIN	Global Impact Investing Network – Non-profit organisation that promotes impact investing.
GFSG	Green Finance Study Group – Created to identify institutional and market barriers to green finance.

GHG [emissions]	Greenhouse gas emissions – The release of gases such as carbon dioxide (CO ₂), methane (CH ₄), nitrous oxide (N ₂ O) and fluorinated gases into the atmosphere that contribute climate change.
GRI	Global Reporting Initiative – An international independent standards organization promoting sustainability reporting by businesses, governments and other organizations.
GSIA	Global Sustainable Investment Alliance – Globally increases the visibility of sustainable investment organisations.
ICGN	International Corporate Governance Network – Global organisation that promotes Corporate Governance standards.
IGCC	Investor Group on Climate Change - Largest global investor membership body that focuses on climate change. (AUM of USD 2 trillion)
MSCI	Morgan Stanley Capital International – US finance company that provides equity, fixed income, and multi-asset tools.
MSCI KLD 400 Social Index	MSCI KLD 400 - Market cap-weighted stock index of 400 publicly traded companies that have met certain standards of social and environmental excellence. (Focuses on Socially Responsible Investing (SRI)).
NGFS	Network for Greening the Financial System – A group of central bankers that promote sustainability to financial institutions.
PCB	Private Client Broker – A broker whose clients are private individuals.
SASB	Sustainability Accounting Standards Board – Non-profit that sets financial reporting standards.
SBN	Sustainable Banking Network – Unique, voluntary community of financial regulatory agencies.
Scope 1	Scope 1 emissions – Direct GHG emissions produced by an organization or entity from sources that are owned/controlled by them.

Scope 2	Scope 2 emissions – Indirect GHG emissions associated with the consumption of purchased or imported electricity, heat or steam by an organization.
Scope 3	Scope 3 emissions – All other indirect GHG emissions that occur in the value chain of an organization.
SFSG	Sustainable Finance Study Group – Previously known as the Green Finance Study Group.
TCFD	Task Force on Climate-related Financial Disclosures – A global initiative that aims to improve and standardize the disclosure of climate-related financial risks and opportunities by companies and organizations.
TEG	EU Technical Experts Group on sustainable finance – Was set up to develop a cohesive classification system for sustainable economic activities.
UNFCCC	United Nations Framework Convention on Climate Change – An international treaty established to address the issue of climate change and its impacts (It is a legally binding agreement).
UNGC	United Nations Global Impact – Non-binding initiative to encourage businesses to adopt sustainable policies.
UN PRI	United Nations Principles for Responsible Investment – International network that promotes the integration of ESG factors into investment practices and decision-making.
UNSDGs	United Nations Sustainable Development Goals – A set of 17 goals adopted by the UN in 2015 as part of the 2030 Agenda for Sustainable Development.
Wellbeing/Wellness programme	A wellbeing/wellness programme – A structured initiative implemented by organizations to promote the physical, mental and emotional wellbeing of their employees or members.

Check the Independence of Research

As a result of MiFID II and the unbundling of commissions in the UK and Europe and various comparable unbundling legislation originating in the US, over time, the payment models for research have changed. This also means that nano to mid-cap and even some larger cap companies can no longer obtain research via their broker or investment banking relationship as it is no longer commercially viable to do so.

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Is the research provided by a broker and paid for after it has been produced.	NO	<input checked="" type="checkbox"/>
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Christopher Nicholson
Managing Director
Head of Research
ACF Equity Research Ltd

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