

### MORNING COMMENT

## PYX Resources

### Full Year Results for the year ending 31 December 2022

PYX is a producer of premium-quality zircon (ZrSiO<sub>4</sub>) from mineral sands in Indonesia. Today PYX provides its results for the year ending 31 December 2022. Production and sales metrics were all improved: zircon production up 25% over CY 2021 to 9.1kt (all of which was sold) with first production of rutile (in January) and ilmenite (in June) producing 7.5kt in year (only a small portion sold as PYX awaits export permits). Financially, PYX has turned a corner and is now EBITDA positive (underlying EBITDA of \$0.4m vs a \$0.8m loss in 2021). With the recently announced award of an exploration and mining licence at Tisma (23.2.2023) PYX can put together a plan to begin production from two sites and add incremental expansion units to both. Our model shows first production from Tisma in 2024, with continued, incremental expansions at both to reach production of 200kt/yr zircon by the end of the decade. These expansions should make PYX a global leader in the production of zircon. We today revise our fair value for PYX and now see fair value at 98p/sh based on a simple average between a combined NPV<sub>10</sub> for Tisma and Mandiri and 4x EBITDA for 2028e based on peer analysis.

Today's operational update puts the achievements of PYX in 2022 firmly into the spotlight (Table 1). There has been an increase in zircon production and sale volumes (both 9.1kt) with a YoY increase in zircon produced of 25% (compared with the previous year). During the year PYX started production of rutile (January) and ilmenite (June) with joint production volumes of 7.5kt and sales volumes of 0.3kt. Sales of rutile and ilmenite will take place once an export licence is gained. The background to the year was a robust zircon price environment with the average price realised up 36% compared to the previous year at \$2,457/t.

Table 1: Key statistics FY 2022 (ending December 2022)

	FY 2022	FY 2021	Variance
Zircon produced	9.1kt	7.2kt	+25%
Titanium dioxide minerals produced	7.5kt	-	
Yearly average price zircon (USD/t)	2,457	1,811	+36%
<b>Total produced</b>	<b>16.6kt</b>	<b>7.2kt</b>	<b>+129%</b>
<b>Total sold</b>	<b>9.5kt</b>	<b>6.9kt</b>	<b>+38%</b>
Sales revenue (\$m)	22.7	12.4	83%
Cash cost of production (\$m)	(17.3)	(10.4)	-66%
EBITDA (\$m)	(9.3)	(4.3)	-114%
<b>Underlying EBITDA (\$m)</b>	<b>0.4</b>	<b>(0.8)</b>	<b>153%</b>
EBIT (\$m)	(9.5)	(4.5)	-110%
Net loss before tax (\$m)	(9.5)	(4.5)	-110%
Net loss after tax (NLAT) (\$m)	(9.4)	(4.3)	-118%
<b>Cash (\$m)</b>	<b>7.2</b>	<b>6.6</b>	<b>9%</b>

Source: WH Ireland Research, PYX Resources

Underlying EBITDA turned positive at \$0.4m for the year as it turned the corner from an underlying loss of \$0.8m in 2021. Overall EBITDA was a loss of \$9.3m when the non-cash share-based payments and loss on fair value change of financial instruments are included, which was an eps loss of 2.2p/sh. PYX remains debt free with cash of \$7.2m (end Dec 2022).

Year end December	2020A	2021A	2022A	2023E	2024E
Revenue (\$m)	9.0	12.4	22.7	34.6	63.4
EBITDA	(14.0)	(4.5)	(9.3)	15.4	36.9
PBT (\$m)	(14.1)	(4.5)	(9.5)	13.4	34.9
EPS (c)	(5.8)	(1.1)	(2.2)	2.0	5.5
P/E (x)	(3.0)	(16.6)	(8.2)	9.0	3.2
EV/EBITDA	N/A	N/A	N/A	5.8	2.4
Net cash (\$m)	3.5	6.6	7.2	8.9	30.7
Net assets (\$m)	4.5	83.0	83.6	97.1	122.0

Source: Company accounts, WH Ireland estimates

## CORPORATE

Share Price (last close) 17p

Ticker	PYX
Index	LSE
Sector	Mining
Market Cap	£81m

### Marketing Communication

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PYX was awarded an exploration and mining licence for its second deposit at Tisma in early 2023. With production expansions expected at Mandiri and with a new production centre at Tisma expected to be in production in 2024 we see PYX increasing production and revenues and lowering its costs to achieve increasing profit margins and more cash – which we expect to be recycled into the business and pay organically for its own plant expansions.

Corporately, PYX is setting up a distribution warehouse at Port Klang in Malaysia to make exports quicker and cheaper for its expanding customer base. PYX has also entered into funding arrangements with L1 Capital Global Opportunities Master fund (RNS 11.3.2022) and GGY Global Yield fund (RNS 3.10.2022) to provide the capital for PYX's production expansion ambitions.

### We reiterate the strong investment case for PYX

- **Strong, scalable production base.** PYX has a plan to take its 9kt/yr zircon production to 48kt/yr within 5 years and then to 100kt. There is also production expected from Tisma. PYX has access to large resources (263.5Mt of inferred resources (JORC) with an average assemblage value (mid-2022) of \$1,680/t).
- **High grade:** There are few other high-grade zircon projects in the world.
- **Surface deposits:** Little or no stripping is required and the mineral sands are unconsolidated. Operating costs are low and will fall as production scales up.
- **Short time to production – fast track:** No long construction time – simple plant build, fed with material from the mineral resource quickly. Leaves no lasting trace.
- **Mineral assemblage sets PYX aside from its peers:** PYX's resource base sets it apart from its competitors. These are high-grade zircon deposits compared with their peers Premium zircon – with its low radioactivity (U+Th <500ppm), low alumina and high whiteness attracts a premium.
- **Absence of a zircon project pipeline a positive for PYX:** The current market value for PYX does not fully reflect the lack of global projects for zircon. With growing demand, an uncertain supply and a poor project pipeline, we expect a robust zircon price for several years to come. It is during these years that PYX will be established as a significant global zircon producer, in our view
- **Use of zircon growing:** The use of zircon is growing and new-industry applications are being found for which zircon is proving necessary in the carbon transition. For example, zircon alloys are used in many sectors (nuclear reactors and the automotive industry). Zircon is also used in hydrogen cells and in ceramic roof tiles to cool buildings.
- **Strong returns:** Our simple DCF model returns strong NPVs using a long-term zircon price less than today (we use \$2,000/t). Returns are driven by the grade (high) and capex/opex (low) against our conservative pricing as the mineral sands sector enters a boom. We risk the operations lightly as there is little operational risk with much of PYX derisked by ongoing operations with 0.8x NPV included in our model for capital risk.

Table 2: Updated valuation table for PYX resources

Asset		\$m	£m*	Risk**	GBP/sh***
Mandiri / Tisma	NPV <sub>10</sub>	870.3	725.3	0.8x	122
PYX Resources	4x PE 2028E	515.1	429.2	0.8x	72
<b>Arithmetic</b>					97
Net cash	WHI end 2022	7.2	6.0	1.0x	1
<b>PYX Resources</b>					<b>98</b>

Source: WH Ireland Research, PYX Resources

\* GB:USD exchange rate 1.2:1. \*\* subjective risk. \*\*\*per share calculations based on 447m shares in issue

**We have revised our fair value for PYX to 98p/share.** We value PYX on a mixed basis using a simple average between NPV<sub>10</sub> and a peer multiple EV/EBITDA of 4x; which values PYX at a small discount to the large producer (Iluka (ASX:ILU, N/R) with an EV/EBITDA of 4-5x, but at a premium to the lower insitu value, bulk producers of ilmenite (e.g Kenmare (LSE:KMR, N/R) and Base Resources (AIM:BSE, N/R) with P/E's of ~2-3x. PYX has a simple business model to produce premium zircon (and minor rutile and ilmenite) at high margins. We view it as relatively low risk, with the biggest risk at this early stage of evolution as access to capital.

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Outperform	0	0.0	0	0.0
Market Perform	0	0.0	0	0.0
Underperform	0	0.0	0	0.0
Sell	0	0.0	0	0.0
<b>Total</b>	<b>66.0</b>	<b>100.0</b>	<b>66.0</b>	<b>100.0</b>

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PYX Resources (PYX)	2,3,4,5	Corporate	05.04.22

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