

# Pixie Dust Technologies

(NASDAQ: PXDT)

## Revenue & EPS Beat / Products Gaining Traction Quickly

**BUY**

**Current Price: US\$1.31**

**Fair Value: US\$4.45**

**Risk\*: 4**

Sector: Technology

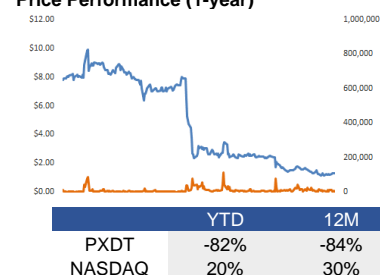
[Click here for more research on the company and to share your views](#)

### Highlights

- In FY2024 (12 months ended April 2024), Pixie generated 993M yen (\$6.3M) in revenue, **up 41% YoY, beating our estimate by 10%**, driven by stronger unit sales of its flagship SonoRepro and kikippa products.
- EBITDA and EPS remained negative, and worsened slightly, due to a 20% increase in G&A expenses, driven by higher marketing expenses. **2024 EPS was 7% higher than our estimate.**
- Pixie has **six commercialized products** (all launched in the past two years), and several others in R&D stages. One of its flagship products promotes hair growth and mitigates hair loss (SonoRepro). The company also offers products to individuals who are deaf or hard of hearing (VUEVO), and those interested in improving their cognitive abilities (kikippa).
- In August 2024, the company **launched the VUEVO Display**, a transparent screen that shows real-time dialogue subtitles/translations on both sides. It is primarily designed for public transportation counters and hotel reception desks frequented by foreign visitors.
- Subsequent to year-end, Pixie **secured a 1B yen loan** from a mid-tier Japanese bank. Given that Pixie is still in early stages of revenue generation, it is encouraging to see the company vetted by a financial institution.
- Shares are down 82% YTD despite strong growth in revenue and recent product launches. We believe **the market is underestimating the company's growth potential**, particularly given the quick and promising early adoption of its products.

Sid Rajeev, B.Tech, CFA, MBA  
Head of Research

### Price Performance (1-year)



### Company Data

52-Week Range	US\$1.13 - \$10.39
Shares O/S	15M
Market Cap.	US\$19M
Current Yield	N/A
P/E (forward)	N/A
P/B	2.0x

Key Financial Data (000s, JPY)			
YE: Apr 30th	2024	2025E	2026E
Cash	1,607,763	775,555	26,930
Working Capital	1,780,303	966,682	238,503
LT-Debt	1,007,781	2,007,781	3,007,781
Total Assets	3,382,601	2,587,147	1,871,623
Revenue	993,021	1,410,938	1,763,672
Net Income	(1,974,536)	(1,839,947)	(1,764,465)
EPS	(138)	(128)	(123)

\*See last page for important disclosures, rating, and risk definitions. All figures in JPY unless otherwise specified.

## Company Overview

Formed in 2017

80 employees

Six commercialized products, and 10+ products in pipeline in various stages of R&D, all driven by Pixie's wave control technology

Follows an asset-light business model by relying on third-party manufacturers

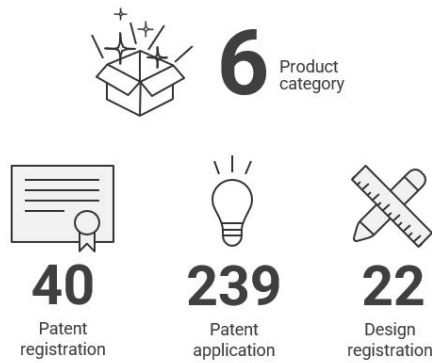
Commercializing applications through partnerships with industry players, and research entities

Three commercialized personal care products, all currently marketed in Japan

Three commercialized products for businesses, all available in Japan, with one also marketed in the U.S.

Headquartered in Tokyo, Pixie is focused on applying its proprietary wave control technology across a **wide range of applications** for consumers and businesses. Wave control technology is a **proprietary innovation** capable of manipulating sound and light waves to influence objects, gather and analyze their information, and manipulate their features to achieve desired effects.

## Portfolio



2024 Clio Health, 2024 D&AD Award



Winner of CES 2024 Innovation Awards



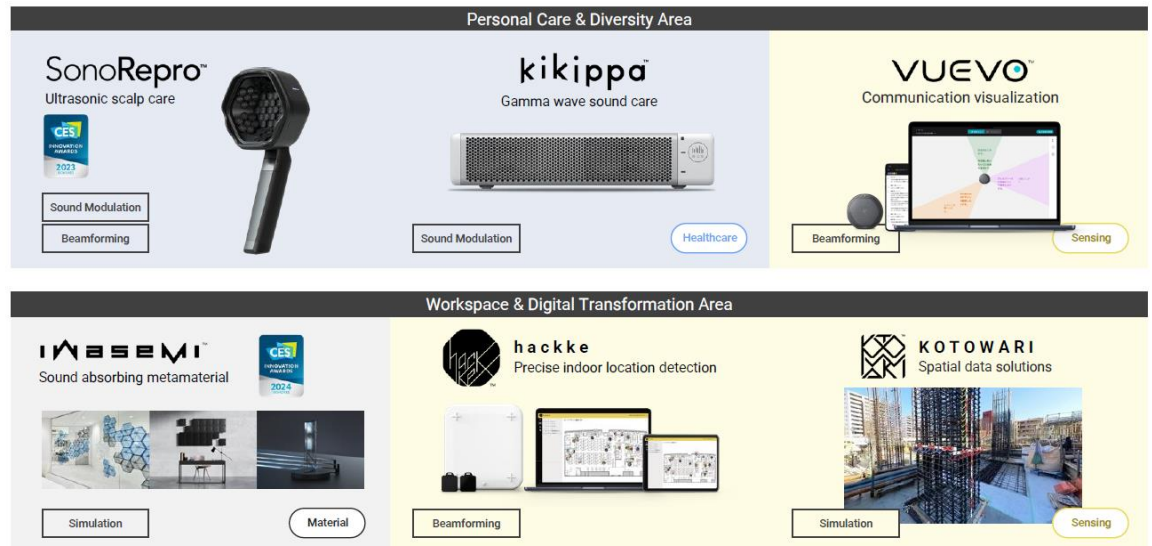
Winner of CES 2023 Innovation Awards



2022 Received the "Intellectual Property Achievement Award, Minister of Economy, Trade and Industry Award" in 2022



"Yoichi Ochiai x Japan Phil Project" Cannes Lions 2019 Winner of multiple awards including the 72nd Dentsu Advertising Award



Source: Company

The following section summarizes Pixie’s flagship products.

*These three products accounted for 65% of FY2024 revenue (57% in FY2023)*

*Compared to typical startups, we believe Pixie’s strategic partnerships with established players enhance its success potential by leveraging their expertise, resources, and distribution channels*

*SonoRepro is marketed as a scalp care device, while kikippa is marketed for its ability to stimulate a user’s auditory experience*

<b>SonoRepro</b> (Launched in 2022)	<b>kikippa</b> (Launched in 2023)	<b>VUEVO</b> (Launched in 2023)
Pixies has a non-exclusive <b>distribution agreement with Angfa</b> , a Japanese preventive medicine company; financial terms undisclosed	Developed in collaboration with <b>Shionogi Healthcare</b> (TSE: 4507/MCAP: US\$13B), a Japanese pharmaceutical company; financial terms undisclosed	Developed in collaboration with <b>Sumitomo Pharma</b> (TSE: 4506/MCAP: US\$1.8B), a Japanese pharmaceutical company; financial terms undisclosed
  <p style="text-align: center;">Source: Company</p>	  <p style="text-align: center;">Source: Company</p>	  <p style="text-align: center;">Source: Company</p>
A <a href="#">non-contact scalp care device</a> utilizing ultrasonic waves to stimulate the scalp, promoting hair growth and overall hair health; Intended for daily use, with each session requiring one minute of treatment.  Tests conducted by Pixie and its partner revealed significant improvements in hair diameter, scalp condition, and scalp water content.	An <a href="#">acoustic stimulation device/speaker</a> primarily designed for seniors to enhance cognitive abilities and prevent dementia. This device uses a proprietary algorithm to transform everyday sounds (like those from TVs or computers) into frequencies associated with gamma brainwaves. Gamma waves are the fastest signals produced by the brain. Third-party studies indicate a link between gamma waves and improved cognitive functions. kikippa connects directly to audio devices.	A <a href="#">tabletop microphone transcription service</a> designed for the deaf and hard of hearing (DDH); it displays the direction and content of a speaker’s voice in real-time. Compatible with computers and tablets, it enhances conversations in group settings like meetings or lectures. Pixie is currently developing smart glasses equipped with same technology.
<b>Number of devices sold to date</b> – 3,000+	<b>Number of devices sold to date</b> – undisclosed	In August 2024, the company launched the VUEVO Display, a transparent screen that shows real-time dialogue subtitles on both sides. It also features an interpretation function, aiding communication for both DHH individuals and those speaking different languages.
<b>Distribution</b> - 95+ retail and online stores/salons in Japan, including major consumer electronics retail chains, and Amazon Japan (NASDAQ: AMZN)	<b>Distribution</b> - Sold on partner Shionogi Healthcare’s online platform, consumer electronics stores, and other online stores	<b>Number of devices sold to date</b> – in early stages of commercialization
<b>Product Reviews</b> - <10 reviews on Amazon, and other online stores	<b>Product Reviews</b> - <10 reviews on Amazon, and other online stores	<b>Distribution</b> – Direct sales to businesses
<b>Device Price</b> - 125,000 yen (US\$815)	<b>Device Price</b> - 90,000 yen (US\$590)	<b>Product Reviews</b> – N/A
<b>Estimated product life</b> – three years	<b>Estimated product life</b> – five years	<b>Device Price</b> – VUEVO mic: 145,000 yen (US\$945), and monthly usage fees of 30,000 yen (US\$195) for connectivity
<b>Competition</b> – Directly competes with hair scalp massagers offered by large brands; SonoRepro’s advantages lie in its ability to stimulate the scalp without direct contact, ensuring cleanliness, and scalp protection. The price range of comparable devices is 85,000 (US\$550) to 200,000 yen (US\$1,300)	<b>Competition</b> – We are not aware of any direct competitors. However, the device competes with medical products/solutions designed for dementia prevention.	<b>Estimated product life</b> – five years  <b>Competition</b> - Pixie competes with hearing aids and speech-to-text apps. Its advantages include distinguishing speakers in meetings, and value-added features such as summarized minutes. Pixie is in the process of incorporating translation services.

## Financials (Year-End: Apr 30<sup>th</sup>)

Segmented Results (000s, JPY)	2021	2022	2023	2024	YoY
Services	512,772	636,265	521,763	469,867	-10%
Products	-	-	182,949	523,154	186%
<b>Revenue</b>	<b>512,772</b>	<b>636,265</b>	<b>704,712</b>	<b>993,021</b>	<b>41%</b>
Services (incl. D&A)	136,390	206,604	65,605	45,474	-31%
Products (incl. D&A)	-	-	77,035	286,428	272%
COGS (incl. D&A)	136,390	206,604	142,640	331,902	133%
<b>Gross Profit</b>	<b>376,382</b>	<b>429,661</b>	<b>562,072</b>	<b>661,119</b>	<b>18%</b>
Services - GM (incl. D&A)	73%	68%	87%	90%	
Products - GM (incl. D&A)	-	-	58%	45%	
<b>Gross Margin (Overall) - incl. D&amp;A</b>	<b>73%</b>	<b>68%</b>	<b>80%</b>	<b>67%</b>	

Segmented Results	2023	2024	% of Total	YoY
SonoRepro				
* Products Sold	1,432	1,545		8%
* Revenue (000s, JPY)	142,449	198,556	20%	39%
kikippa (Revenue - 000s, JPY)	170,008	386,795	39%	128%
VUEVO (Revenue - 000s, JPY)	89,725	64,209	6%	-28%
iwasemi				
* Products Sold	9,706	33,635		247%
* Physical dimensions (m2)	3,802	13,424		253%
* Revenue (000s, JPY)	57,440	130,768	13%	128%
KOTOWARI (Revenue - 000s, JPY)	122,704	166,427	17%	36%
Others (000s, JPY)	122,386	46,266	5%	
<b>Total Revenue (000s, JPY)</b>	<b>704,712</b>	<b>993,021</b>		<b>41%</b>

INCOME STATEMENTS (000s, JPY)	2021	2022	2023	2024	YoY
YE: Apr 30th					
Revenue	512,772	636,265	704,712	993,021	41%
Cost of Sales	84,658	131,458	32,064	142,184	343%
<b>Gross Profit</b>	<b>428,114</b>	<b>504,807</b>	<b>672,648</b>	<b>850,837</b>	<b>26%</b>
G & A	525,158	833,305	1,790,519	2,152,283	20%
R & D	601,731	694,072	686,557	512,997	-25%
<b>EBITDA</b>	<b>(698,775)</b>	<b>(1,022,570)</b>	<b>(1,804,428)</b>	<b>(1,814,443)</b>	<b>1%</b>
D&A	51,732	75,182	110,576	189,718	72%
<b>EBIT</b>	<b>(750,507)</b>	<b>(1,097,752)</b>	<b>(1,915,004)</b>	<b>(2,004,161)</b>	<b>5%</b>
Interest	17,672	24,777	28,748	31,365	9%
<b>EBT</b>	<b>(768,179)</b>	<b>(1,122,529)</b>	<b>(1,943,752)</b>	<b>(2,035,526)</b>	<b>5%</b>
Share-Based Compensation	-	-	65,537	3,577	-95%
Unusual/Non-Recurring Expenses	(8,695)	(13,025)	(43,798)	(64,567)	47%
Income Tax					
<b>Net Income</b>	<b>(759,484)</b>	<b>(1,109,504)</b>	<b>(1,965,491)</b>	<b>(1,974,536)</b>	<b>0%</b>
EPS	-126.58	-184.92	-290.28	-137.51	-53%
Shares	6,000,000	6,000,000	6,771,025	14,359,123	112%

Source: Company Filings, FRC

FY2024 revenue was up 41% YoY, beating our estimate by 10%

Product sales were up 186% YoY, fueled by product launches in FY2023

Services revenue come from providing R&D services to partners; however, this revenue stream will likely diminish moving forward

EBITDA and EPS remained negative, and worsened slightly due to a 20% increase in G&A expenses, driven by higher marketing expenses

2024 EPS was 7% higher than expected

The company does not disclose its marketing expenses; In FY2024, G&A expenses (including marketing) were 217% of revenue, down from 254% in FY2023

With rising revenue, we believe this ratio will decrease to 156% in FY2025, and continue to trend lower

Established companies in the Healthcare Equipment/Services sector typically allocate 5%-10% of revenue to marketing expenses

FCF decreased due to higher G&A expenses

Healthy balance sheet

Margins	2021	2022	2023	2024	Sector
Gross	83%	79%	95%	86%	26%
EBITDA	-136%	-161%	-256%	-183%	11%
EBIT	-146%	-173%	-272%	-202%	8%
Net	-148%	-174%	-279%	-199%	5%

Expenses (% of Revenue)	2021	2022	2023	2024	Sector
G & A	102%	131%	254%	217%	16%
R & D	117%	109%	97%	52%	

Summary of Cash Flows (000s, JPY)	2021	2022	2023	2024
YE: Apr 30th				
Cash Flows from Operations	(589,065)	(1,075,326)	(1,813,442)	(2,090,202)
Cash Flows from Investing	779,350	(74,702)	(89,284)	(183,911)
Cash Flows from Financing	289,354	(120,110)	2,242,276	1,711,752
Net Change	479,639	(1,270,138)	339,550	(562,361)
<b>Free Cash Flows</b>	<b>(607,642)</b>	<b>(1,145,810)</b>	<b>(1,893,802)</b>	<b>(2,263,080)</b>

Liquidity & Capital Structure (000s, JPY)	2022	2023	2024	Sector (Healthcare Equipment/Services)
YE: Apr 30th				
Cash	1,795,963	2,135,513	1,607,763	
Working Capital	1,791,708	1,277,792	1,780,303	
Current Ratio	6.76	1.72	4.88	1.70
Total Debt	790,000	1,034,445	1,021,113	
Total Debt / Capital	33%	35%	42%	23%
LT Debt / Capital	32%	1%	41%	15%

	Warrants	Strike Price	Value
	3,600	\$1.38	\$4,966
	93,000	\$0.18	\$17,186
	234,000	\$1.98	\$463,320
	30,000	\$1.99	\$59,796
	422,400	\$1.99	\$841,928
	219,600	\$1.99	\$437,707
	87,600	\$0.01	\$578
<b>Total Outstanding</b>	<b>1,090,200</b>	<b>\$1.67</b>	<b>\$1,825,481</b>
<b>In-the-Money</b>	<b>180,600</b>	<b>\$0.10</b>	<b>17,765</b>

Source: Company Filings, FRC

## FRC Projections and Valuation

As FY2024 G&A expenses were higher than expected, we are lowering our 2025 EPS estimate

As a result, our DCF valuation decreased from US\$6.19 to US\$5.70/share

We are not making any material changes to our revenue forecasts, with our models predicting that Pixie's two flagship products will capture 1% of their target markets in Japan by 2030, without considering any international expansion

For conservatism, we are not assigning any upside from the company's other products

JPY, 000s (except EPS)	2025E (Old)	2025E (New)	2026E (Introducing)
Revenue	1,410,938	1,410,938	1,763,672
EBITDA	-1,366,273	-1,564,687	-1,429,246
Net Profit	-1,682,512	-1,839,947	-1,764,465
EPS	-113.19	-128.14	-122.88

SonoRepro	2025E	2026E	2030E	Target Markets
Unit Sales	6,563	8,203	30,429	2,760,000
Price (Yen)	125,000	125,000	125,000	125,000
<b>Revenue (Yen)</b>	<b>820,312,500</b>	<b>1,025,390,625</b>	<b>3,803,625,000</b>	<b>345,000,000,000</b>
kikippa				
Unit Sales	6,563	8,203	39,911	3,620,000
Price (Yen)	90,000	90,000	90,000	90,000
<b>Revenue (Yen)</b>	<b>590,625,000</b>	<b>738,281,250</b>	<b>3,591,945,000</b>	<b>325,800,000,000</b>
Service Revenue (Yen)	48,953,333	24,476,667	24,476,667	24,476,667
<b>Total Revenue (Yen)</b>	<b>1,410,937,500</b>	<b>1,763,671,875</b>	<b>7,395,570,000</b>	<b>670,800,000,000</b>

DCF Model (000s, JPY)	2025E	2026E	2030E	Terminal
EBIT (1-tax)	(1,763,891)	(1,638,410)	1,947,873	
Non-Cash Expenses	199,204	209,164	254,240	
Change in Working Capital	(18,587)	(20,446)	(29,935)	
Cash from Operations	(1,583,274)	(1,449,691)	2,172,179	
CAPEX	(172,878)	(172,878)	(172,878)	
Free Cash Flow	(1,756,152)	(1,622,569)	1,999,301	
Present Value	(1,613,053)	(1,330,674)	1,042,016	11,925,297

Discount Rate	12%
Terminal Growth	3%

Present Value (000s, JPY)	11,842,545
Cash - Debt (000s, JPY)	586,650
Fair Value (US\$)	\$85,761,442
Shares O/S	15,036,106
<b>Value per Share (US\$)</b>	<b>\$5.70</b>

Source: FRC

### Comparables Valuation

Pixelie vs Major Consumer Electronics/Healthcare Equipment Companies	EV/Revenue (forward)
Intuitive Surgical	20.80
Boston Scientific	7.67
Andon Health	5.10
Abbott Laboratories	4.89
Johnson & Johnson	4.65
Medtronic	3.98
GE HealthCare	2.35
Sony	1.57
InMode	1.53
Cosonic Intelligent	1.40
Samsung	1.40
Koninklijke Philips	1.30
Pixelie Dust (PV of 2027E)	0.86x
Healthcare Equipment/Services Sector	1.40x
Consumer Electronics Sector	0.90x
<b>Average</b>	<b>2.41x</b>
<b>Pixelie's Discount</b>	<b>-64%</b>

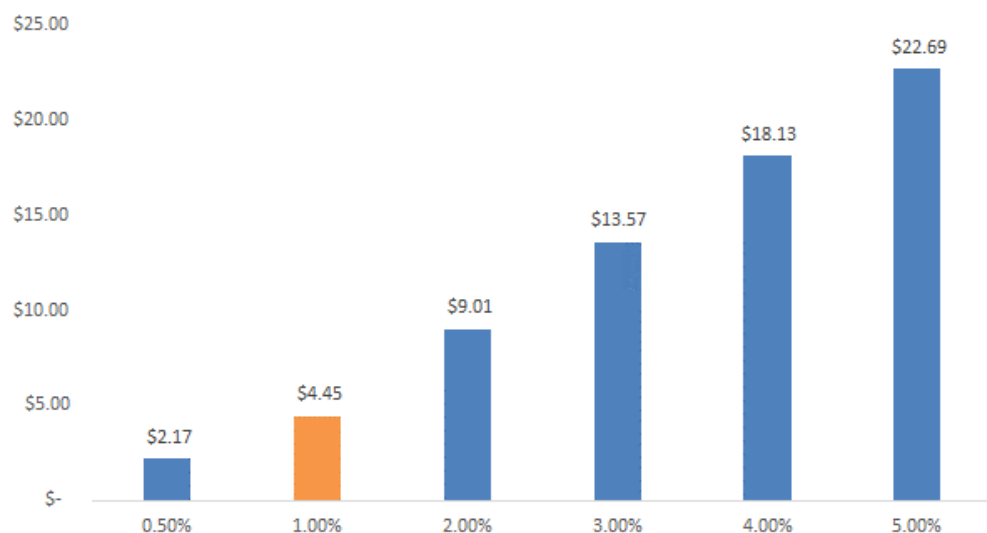
Source: FRC/S&P Capital IQ

Pixelie is trading at 0.9x forward revenue (previously 1.4x) vs the sector average of 2.4x (previously 2.8x), implying a 64% discount

Applying 2.4x to our revenue forecast for Pixelie, we arrived at a comparables valuation of US\$3.19/share (previously US\$4.23/share)

We are **reiterating our BUY rating**, and adjusting our fair value estimate from US\$5.21 to US\$4.45/share (the average of our DCF and comparables valuations). Our valuation hinges heavily on the success of Pixelie's two flagship products. While Pixelie's technology is a recent innovation, we believe that product distribution by major Japanese retail chains and electronic stores, coupled with strong sales growth, **suggests promising market acceptance.**

#### Market Share Assumption



Source: FRC

Our valuation is highly sensitive to our market share assumptions

*We are maintaining  
our risk rating of 4  
(Speculative)*

## Risks

We believe the company is exposed to the following key risks (not exhaustive):

- Limited operational history
- EBITDA has not yet turned positive
- **Competition**
- Need to **pursue equity financings** to fund working capital, and R&D, until EBITDA turns positive
- No guarantee that the company will be able to expand its products internationally



## Appendix

INCOME STATEMENTS (000s, JPY)			
YE: Apr 30th	2024	2025E	2026E
Revenue	993,021	1,410,938	1,763,672
Cost of Sales	142,184	282,188	705,469
<b>Gross Profit</b>	<b>850,837</b>	<b>1,128,750</b>	<b>1,058,203</b>
G & A	2,152,283	2,206,090	1,985,481
R & D	512,997	487,347	501,968
<b>EBITDA</b>	<b>(1,814,443)</b>	<b>(1,564,687)</b>	<b>(1,429,246)</b>
D&A	189,718	199,204	209,164
<b>EBIT</b>	<b>(2,004,161)</b>	<b>(1,763,891)</b>	<b>(1,638,410)</b>
Interest	31,365	76,056	126,056
<b>EBT</b>	<b>(2,035,526)</b>	<b>(1,839,947)</b>	<b>(1,764,465)</b>
Share-Based Compensation	3,577		
Unusual/Non-Recurring Expenses	(64,567)		
Income Tax			
<b>Net Income</b>	<b>(1,974,536)</b>	<b>(1,839,947)</b>	<b>(1,764,465)</b>
EPS	-137.51	-128.14	-122.88

BALANCE SHEETS (000s, JPY)			
YE: Apr 30th	2024	2025E	2026E
Cash	1,607,763	775,555	26,930
A/R & Others	472,015	519,217	571,138
Inventories	158,780	174,658	192,124
<b>Current Assets</b>	<b>2,238,558</b>	<b>1,469,429</b>	<b>790,192</b>
PP&E	576,868	550,542	514,256
Others	567,175	567,175	567,175
<b>Total Assets</b>	<b>3,382,601</b>	<b>2,587,147</b>	<b>1,871,623</b>
Debt	13,332	13,332	13,332
A/P & Others	444,923	489,415	538,357
<b>Current Liabilities</b>	<b>458,255</b>	<b>502,747</b>	<b>551,689</b>
Debt	1,007,781	2,007,781	3,007,781
Others	491,068	491,068	491,068
<b>Total Liabilities</b>	<b>1,957,104</b>	<b>3,001,596</b>	<b>4,050,538</b>
Share Capital	7,782,285	7,782,285	7,782,285
Retained Earnings	-6,356,788	-8,196,735	-9,961,200
<b>Total Liabilities &amp; SE</b>	<b>3,382,601</b>	<b>2,587,147</b>	<b>1,871,623</b>

<b>CASH FLOW STATEMENTS (000s, JPY)</b>			
<b>YE: Apr 30th</b>	<b>2024</b>	<b>2025E</b>	<b>2026E</b>
Net loss for the period	-1,974,536	-1,839,947	-1,764,465
<b>Items not involving cash</b>			
D&A	189,718	199,204	209,164
Share-Based Compensation	3,577		
Others	-54,378		
<b>FFO</b>	<b>-1,835,619</b>	<b>-1,640,743</b>	<b>-1,555,301</b>
Changes in WC	-254,583	-18,587	-20,446
<b>Cash From Operating Activities</b>	<b>-2,090,202</b>	<b>-1,659,330</b>	<b>-1,575,747</b>
PP&E	-172,878	-172,878	-172,878
Others	-11,033		
<b>Cash For Investing Activities</b>	<b>-183,911</b>	<b>-172,878</b>	<b>-172,878</b>
Equity	1,740,123		
Debt	-13,332	1,000,000	1,000,000
Others	-15,039		
<b>Cash From Financing Activities</b>	<b>1,711,752</b>	<b>1,000,000</b>	<b>1,000,000</b>

**Fundamental Research Corp. Equity Rating Scale:**

**Buy** – Annual expected rate of return exceeds 12% or the expected return is commensurate with risk

**Hold** – Annual expected rate of return is between 5% and 12%

**Sell** – Annual expected rate of return is below 5% or the expected return is not commensurate with risk

**Suspended or Rating N/A**— Coverage and ratings suspended until more information can be obtained from the company regarding recent events.

**Fundamental Research Corp. Risk Rating Scale:**

**1 (Low Risk)** - The company operates in an industry where it has a strong position (for example a monopoly, high market share etc.) or operates in a regulated industry. The future outlook is stable or positive for the industry. The company generates positive free cash flow and has a history of profitability. The capital structure is conservative with little or no debt.

**2 (Below Average Risk)** - The company operates in an industry where the fundamentals and outlook are positive. The industry and company are relatively less sensitive to systematic risk than companies with a Risk Rating of 3. The company has a history of profitability and has demonstrated its ability to generate positive free cash flows (though current free cash flow may be negative due to capital investment). The company's capital structure is conservative with little to modest use of debt.

**3 (Average Risk)** - The company operates in an industry that has average sensitivity to systematic risk. The industry may be cyclical. Profits and cash flow are sensitive to economic factors although the company has demonstrated its ability to generate positive earnings and cash flow. Debt use is in line with industry averages, and coverage ratios are sufficient.

**4 (Speculative)** - The company has little or no history of generating earnings or cash flow. Debt use is higher. These companies may be in start-up mode or in a turnaround situation. These companies should be considered speculative.

**5 (Highly Speculative)** - The company has no history of generating earnings or cash flow. They may operate in a new industry with new, and unproven products. Products may be at the development stage, testing, or seeking regulatory approval. These companies may run into liquidity issues and may rely on external funding. These stocks are considered highly speculative.

**Disclaimers and Disclosure**

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