



FY 2024/4
2Q Result Presentation Material

2Q Financial Result ,Main topics

1

Collaborative Research Agreement with Tohoku University of Medicine

2

“Gamma Wave Sound” won the Creative Innovation Category Gold and ICC Summit Award at the “ACC TOKYO CREATIVITY AWARDS”

3

iwasemi™ RC-α won the CES 2024 Innovation Award

4

Provided “VUEVO subtitle transparent display” to the “Japan-ASEAN Young Business Leaders Summit.”

5

Findings Presented at Neuroscience 2023 Conference “Study Confirms that Sound Stimulation Synchronizes Gamma Waves in the Human Brain.”

Summary income statement

	2022/10	2023/10	2023/10	YoY Change
	¥1,000	¥1,000	\$1,000	%
Revenue:				
Service	121,866	73,430	485	(39.70)
Products	36,773	225,709	1,490	513.80
Total revenue	158,639	299,139	1,975	88.60
Cost and expenses:				
Cost of services	23,121	16,710	111	(27.70)
Cost of products	24,053	126,820	837	427.30
Research and development	339,283	279,436	1,845	(17.60)
Selling, general and administrative expenses	643,892	1,051,796	6,944	63.30
Total cost and expenses	1,030,349	1,474,762	9,737	43.10
Loss from operations	(871,710)	(1,175,623)	(7,762)	34.90
Interest expense	(13,423)	(15,811)	(104)	17.80
Other income, net	133	41,407	273	31,033.10
Loss before income taxes	(885,000)	(1,150,027)	(7,593)	29.90
Income tax expense	—	—	—	—
Net loss	(885,000)	(1,150,027)	(7,593)	29.90

Summary balance sheet

	2023/4	2023/10	2023/10
	¥1,000	¥1,000	\$1,000
Assets			
Current assets:			
Cash and cash equivalents	2,135,513	2,420,667	15,982
Accounts receivable – trade	198,892	13,614	90
Inventories	123,119	180,022	1,189
Deferred offering costs	260,689	-	-
Prepaid expenses and other current assets	326,202	355,076	2,344
Total current assets	3,044,415	2,969,379	19,605
Property and equipment, net	507,778	490,358	3,238
Intangible assets, net	14,068	15,212	100
Operating lease right-of-use assets, net	46,046	466,432	3,080
Other assets	105,347	141,026	931
Total assets	3,717,654	4,082,407	26,954
Liabilities and stockholders' equity			
Current liabilities:			
Accounts payable	549,449	156,194	1,031
Accrued expenses and other current liabilities	203,842	194,890	1,287
Current portion of long-term borrowings	1,013,332	1,013,332	6,690
Total current liabilities	1,766,623	1,364,416	9,008
Long-term borrowings, net of current portion	21,113	14,447	95
Operating lease liabilities, net of current portion	5,956	459,071	3,031
Other liabilities	25,536	18,400	122
Total liabilities	1,819,228	1,856,334	12,256
Common stock, no par value	100,000	1,074,970	7,097
Additional paid-in capital	6,180,678	6,683,382	44,127
Accumulated deficit	(4,382,252)	(5,532,279)	(36,526)
Total stockholders' equity	1,898,426	2,226,073	14,698
Total liabilities and stockholders' equity	3,717,654	4,082,407	26,954

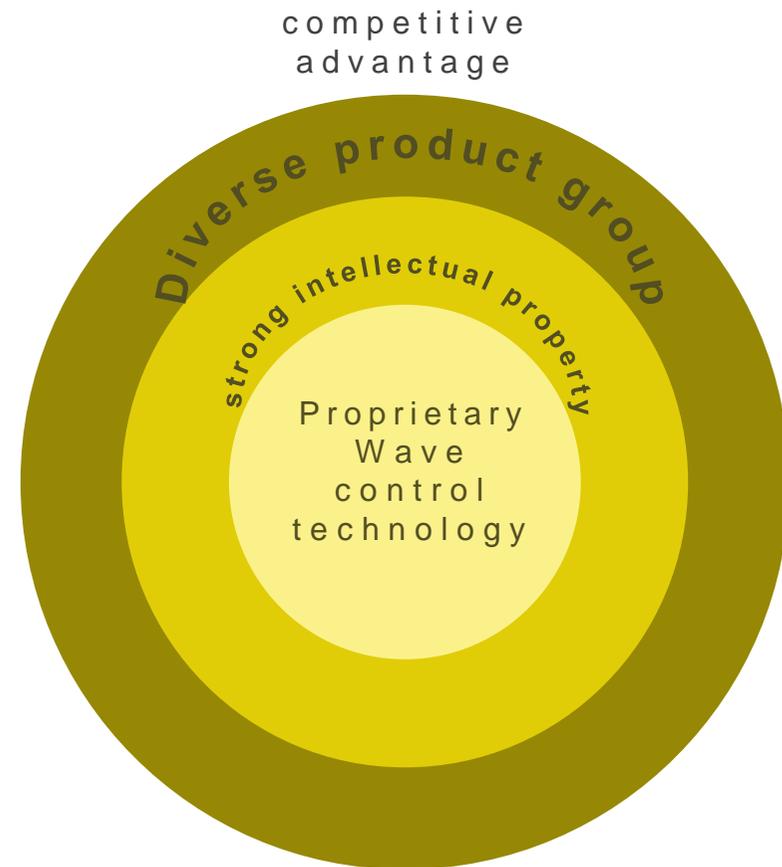
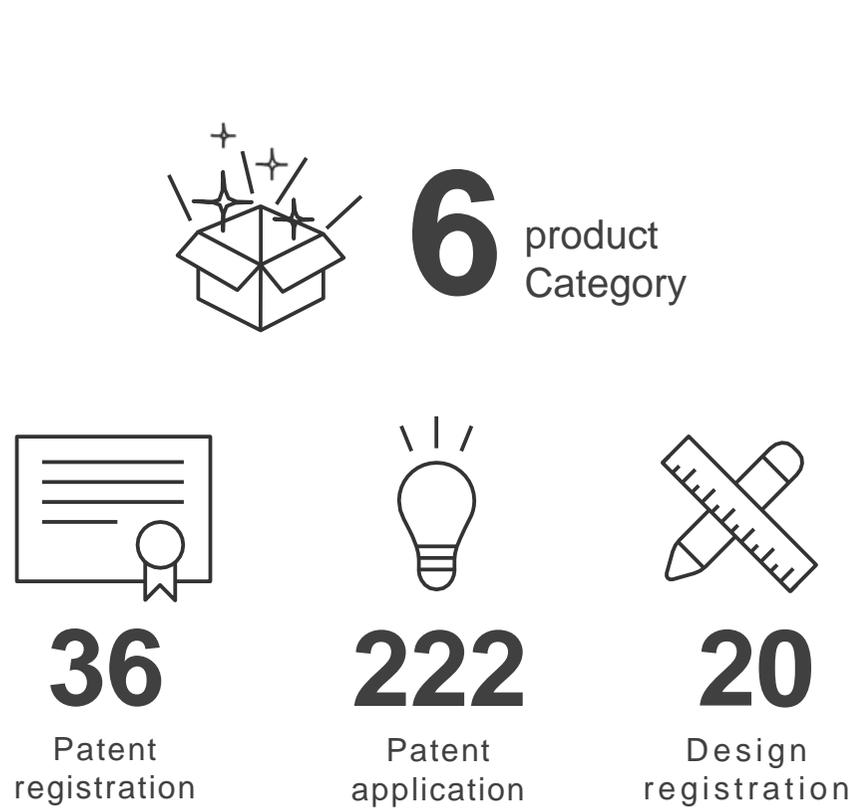
Summary Cashflow Statement

	2022/10	2023/10	2023/10
	¥1,000	¥1,000	\$1,000
Cash flows from operating activities:			
Net loss	(885,000)	(1,150,027)	(7,593)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	38,896	101,331	669
Stock-based compensation	32,768	3,355	22
Foreign exchange losses (gains)	4,043	(35,940)	(237)
Asset retirement obligation accretion	332	490	3
Changes in operating assets and liabilities:			
Accounts receivable-trade	(39,831)	185,278	1,223
Inventories	(30,511)	(56,903)	(376)
Prepaid expenses and other current assets	(13,250)	(25,179)	(166)
Operating lease right-of-use assets, net	30,909	66,973	442
Other assets	(1,678)	(35,681)	(236)
Accounts payable	24,123	(382,095)	(2,523)
Accrued expenses and other current liabilities	9,501	(16,123)	(105)
Operating lease liabilities	(31,968)	(40,544)	(268)
Net cash used in operating activities	(861,666)	(1,385,065)	(9,145)
Cash flows from investing activities:			
Purchases of property and equipment	(47,351)	(64,797)	(428)
Purchases of intangible assets	(1,970)	(3,963)	(26)
Net cash used in investing activities	(49,321)	(68,760)	(454)
Cash flows from financing activities:			
Proceeds from borrowings	250,000	-	-
Repayments of borrowings	-	(6,666)	(44)
Repayments of finance lease liabilities	(6,972)	(8,022)	(53)
Payments of offering costs	(24,151)	(237,222)	(1,566)
Proceeds from issuance of convertible preferred stock	2,171,103	-	-
Proceeds from issuance of common stock upon initial public offering - net of underwriting discounts and commissions	-	1,949,940	12,874
Net cash provided by financing activities	2,389,980	1,698,030	11,211
Effect of exchange rate changes on cash and cash equivalents	-	40,949	270
Net increase in cash and cash equivalents	1,478,993	285,154	1,882
Cash and cash equivalents at beginning of period	1,795,963	2,135,513	14,100
Cash and cash equivalents at end of period	3,274,956	2,420,667	15,982
Non-cash investing and financing activities:			
Operating lease right-of-use assets obtained in exchange for lease liabilities	2,716	487,359	3,218
Property and equipment acquired under finance leases	3,996	-	-
Purchases of property and equipment included in accounts payable	8,332	21,089	139
Offering costs included in accounts payable and, accrued expenses and other current liabilities	23,417	23,025	152

R&D content	Product	Basic research/ advanced development	Business Development	Launched
Hair care	SonoRepro			●
Beauty care (beautiful hair encouragement, skin care)	to be decided	●		
Skin disease treatment	to be decided	●		
Wound treatment	to be decided	●		
Gamma wave sound care speaker	kikippa			●
Gamma wave sound care (other than speakers)	to be decided		●	
Dementia care by sound	to be decided	●		
Hearing-impaired support and minutes creation	VUEVO (wireless microphone)			●
Hearing-impaired support and next-generation communication	VUEVO (smart glass)		●	
Simultaneous translation support	VUEVO (subtitle transparent display)		●	

R&D content	Product	Basic research/ advanced development	Business Development	Launched
Sound absorption in offices	iwasemi (HX- α / SQ- α / RC- α)			●
Sound absorption outside the office	to be decided	●		
Sound insulation in residences (Sound insulation structure allowing air to pass through but not sound)	to be decided		●	
Sound insulation in non-residential areas	to be decided	●		
Reduction of man-hours in reinforcement inspection process	KOTOWARI v360		●	
Reduction of man-hours for processes other than reinforcement inspection	to be decided	●		
People flow analysis	KOTOWARI FAC+			●
Indoor location information measurement	hackke			●

We believe that our core technology, wave control technology, and diverse product portfolio differentiate our company from many competitors.



Appendix.

Company name	Pixie Dust Technologies Co., Ltd.
Listed market	NASDAQ Capital Market (Ticker PXDT)
CEO, COO	Yoichi Ochiai, Taiichiro Murakami
Mission	We are the serial incubator that provides solutions towards faith and trust
Business summary	Product development and sales using wave control technology
Establishment	May 2017
location	8th floor, Yaesu Central Tower, Tokyo Midtown Yaesu, 2-2-1 Yaesu, Chuo-ku, Tokyo
number of employees	78 people (as of the end of May 2023)
Number of issued shares	14,864,867 shares(as of the end of January 2024)
Market capitalization	\$119 million (as of the end of January 2024)



Tokyo Head Office



Research facility (technotope)



Yoichi Ochiai

Representative Director, CEO / PxDT co-founder

He received a Ph.D. (Applied Computer Science) from the University of Tokyo in 2015. He has been an assistant professor at University of Tsukuba since 2015. His main research interest is human-computer interaction called "Digital Nature", which is an environment that fuses the digital with the analogue, blurring the boundary between nature and artifice. He has received numerous awards and accolades, including the 2015 World Technology Award (IT Hardware) from the World Technology Network, the 2020 Innovators Under 35 Japan by MIT Technology Review and the Future 50 by Project Management Institute. His laboratory conducts pioneering research in a wide range of fields including science, engineering, culture, art, vernacularity(practical considerations and local traditions), and computer science. For instance, in the field of ultrasound technology, they have proposed new computational methods for acoustic holography and are focusing on the development of acoustic levitation technology*. Regarding AI, they began research on a localized version of the Large Language Model (LLM) as early as 2020, when it was still relatively unknown to the general public, and provided an application to assist ordinary people in generating novels**. Recently, they have been actively researching abstract language objects (ALO) using the LLM***. He has published numbers of academic papers on computer science, including generative AI, large language models, and computer-generated holograms. His recent representative publications are as follows:

***(1) Y. Ochiai, N. Kondo, T. Fushimi, "Towards Digital Nature: Bridging the Gap between Turing Machine Objects and Linguistic Objects in LLMs for Universal Interaction of Object-Oriented Descriptions", arXiv:2304.04498 (2023)

* (2) T. Fushimi, K. Yamamoto, and Y. Ochiai, "Target Acoustic Field and Transducer State Optimization using Diff-PAT", AIP Advances 11, 125007 (2021)

** (3) H. Osone, J.-L. Lu, and Y. Ochiai. 2021. BunCho: AI Supported Story Co-Creation via Unsupervised Multitask Learning to Increase Writers' Creativity in Japanese. In CHI Conference on Human Factors in Computing Systems Extended Abstracts (CHI '21 Extended Abstracts), May 8-13, 2021, Yokohama, Japan.



Taiichiro Murakami

Representative Director, COO / PxDT co-founder

Completed master's course in biomaterials at the University of Tokyo. He supported industrialization of technologies focusing on R&D, digitization and new business strategies at Accenture Strategy Consulting Headquarters. Participated in launch of a new organization "Open Innovation Initiative" that evaluates startup companies' technologies and derive these technologies to large companies. Also participated in launch of an innovation base "Digital Hub." He serves as a committee member for the Ministry of Economy, Trade and Industry's "Guideline Formulation Committee on Contracts Between Large Enterprises and R&D Ventures," and also holds a concurrent position as an Executive Advisor for the general incorporated association, "Mitou Foundation."

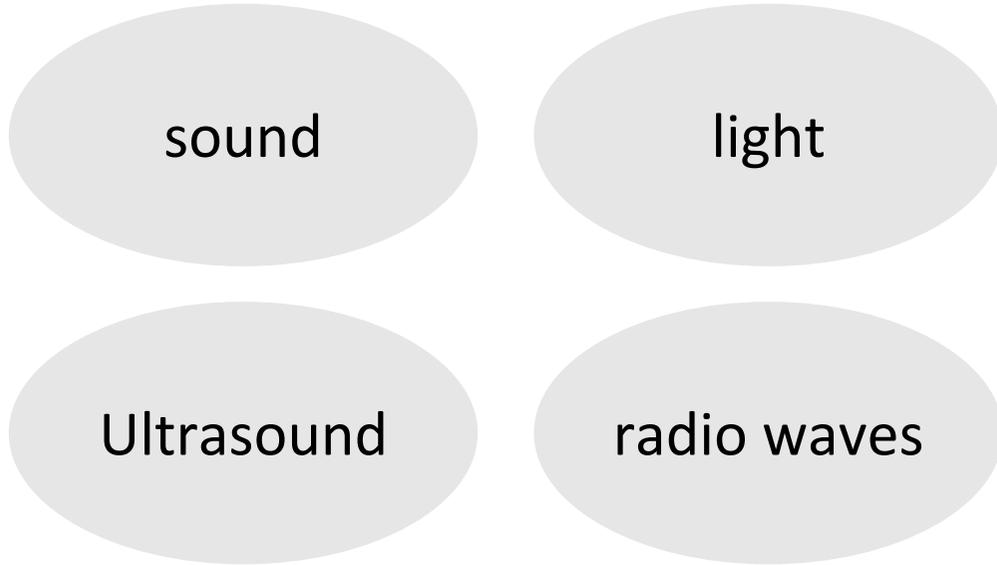


Takayuki Hoshi

Director, CRO / PxDT co-founder

He received a Ph.D (Information Science and Technology) from the University of Tokyo in 2008. He is an expert of wave control technology based on full use of physics and mathematics. He developed the world-first scannable prototype of airborne ultrasound tactile display in 2008 and he demonstrated the world-first 3D acoustic manipulation in 2013. He was awarded Significant Contribution to Science and Technology in 2014 by NISTEP, MEXT, Japan. He is currently working on social implementation of wave control technology through industry-academia collaboration and open innovation

What can be explained using wave principle



physical quantity specifying features of wave

$$v \text{ (wave speed)} = f \text{ (frequency)} \times \lambda \text{ (wavelength)}$$

For example, the sound speed is calculated as $331.5 + 0.6 \times \text{temperature}$ (m/s). Accordingly, if the temperature is 15 degrees, the sound speed is approximately 340 m/s.

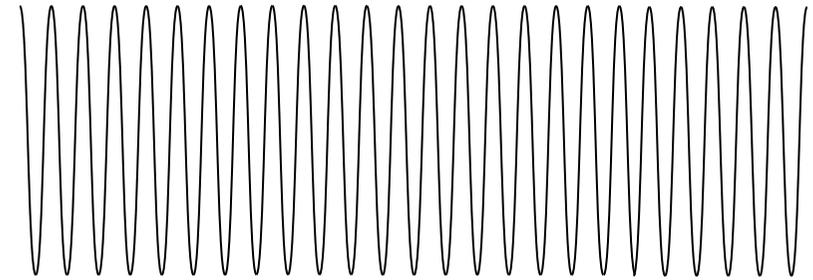
Frequency refers to the number of fluctuations per second, with its unit being Hertz (Hz). Sounds that have frequencies too high for human ears to hear are classified as ultrasound.

The spatial length of a wave is known as the wavelength, and its unit is meters (m). If the sound speed remains constant, a decrease in frequency results in a longer wavelength.

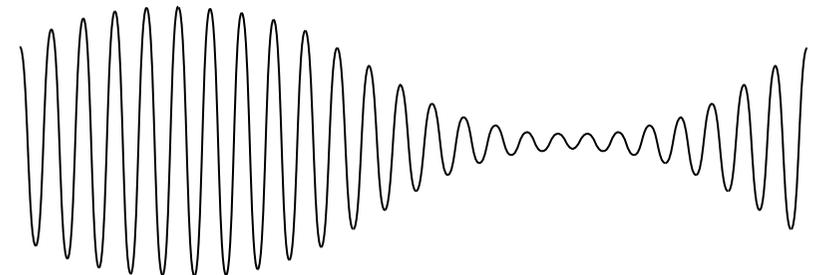
example.) kikipa case



When 1,000Hz sound is emitted from TV



40Hz amplitude modulation (in case of sine wave)



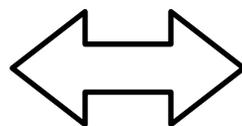
A series of methodologies to manipulate behaviors of sound and light as designed in an abstract layer and to exploit their unique properties.

Abstract/Mathematics

Mathematically treating wave properties common to sound and light, and optimize through computer simulations and control by using electronic circuits.

Wave equation

$$\frac{1}{c^2} \frac{\partial^2 u(x, t)}{\partial t^2} = \frac{\partial^2 u(x, t)}{\partial x^2}$$

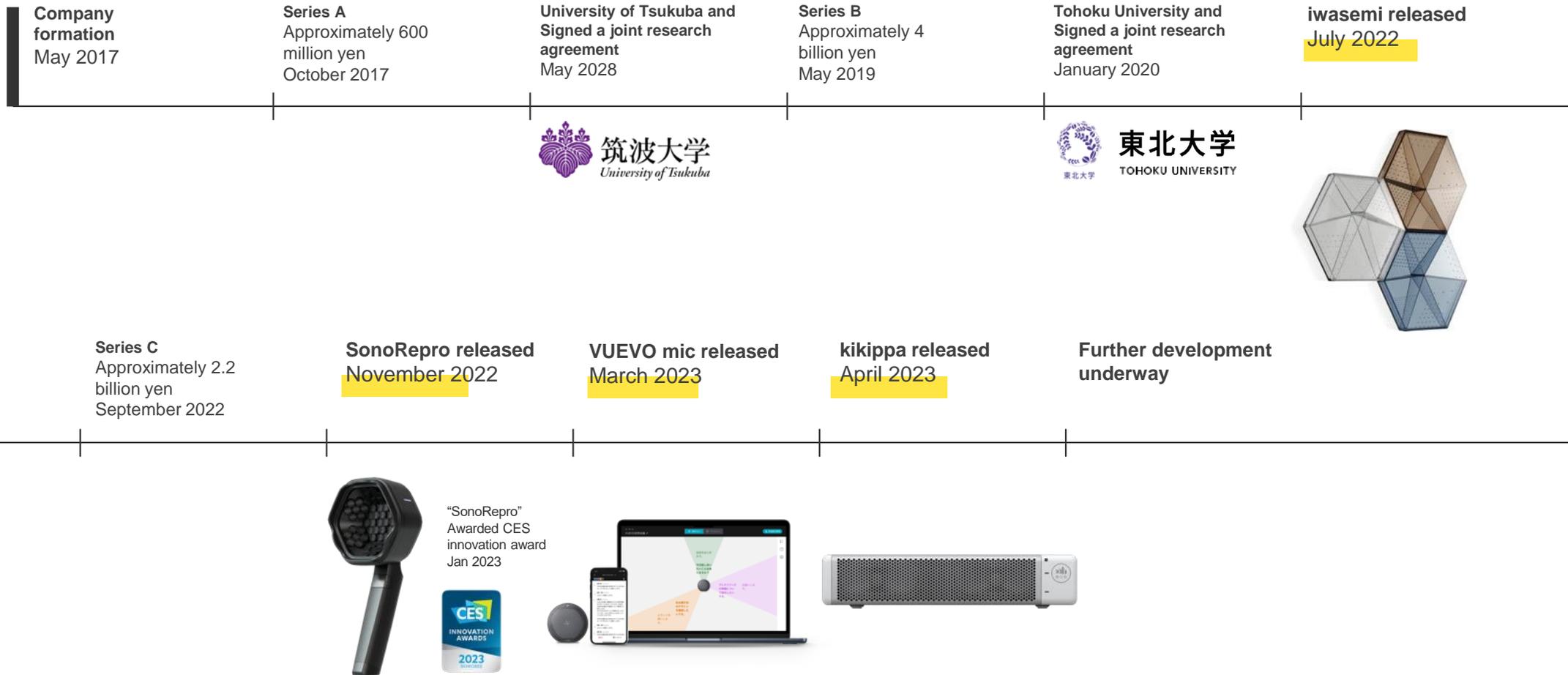


Concrete/Physics

Understand and skillfully utilize differences in physical phenomena of sound and light, differences in frequency/wavelength, and differences in characteristics of media and target objects.

Wave	Perceivable	Imperceptible
Light	Visible light	Ultraviolet light Infrared light Electromagnetic waves
Sound	Audible sound	Ultrasound

Our company launched four products in the previous fiscal year (May 2022 – April 2023).





Winner of CES 2024 Innovation Awards



2023 ACC TOKYO CREATIVITY AWARDS Creative Double winner of Innovation Category Gold and ICC Summit Award



2023 kikippa Good Design Award winner



Winner of CES 2023 Innovation Awards



2022 Representative Director and CEO Ochiai will be appointed to the World Economic Forum Selected as Young Global Leaders 2022



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



2020 2nd IP BASE AWARD Startup Category Grand Prix Winner



Winner of University Venture Award 2019, Early Edge Award



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

By combining our unique wave control technology* and computer science, we develop technologies including personal care devices and metamaterials**.



**"Wave control technology" is our proprietary technology that emits waves to affect objects, measures waves to obtain and analyze information about objects, and interferes with waves to obtain desired effects.

** "metamaterial" is a material designed to have properties not found in nature. These materials usually have artificially designed structures that are smaller than the wavelength of the waves of interest, such as light or sound.

Personal care & diversity

Workspace & digital transformation

SonoRepro™

Home ultrasonic scalp care device

Overview

SonoRepro is a scalp care device released in Japan in November 2022. The product was developed using non-contact vibration pressure stimulation using ultrasonic waves, which is one of our proprietary technologies. Resembling a shower head, users utilize it by positioning it over the intended area of the scalp.

Provided Value

SonoRepro is intended for daily use. We conducted a clinical trial in collaboration with Anfa, a preventive medicine company, and demonstrated that non-contact vibratory pressure stimulation increases the proportion of hair in the anagen phase and reduces the proportion of hair in the telogen phase.

Daily Care with Advanced Technology

A large device using non-contact vibratory pressure stimulation has been introduced at D Clinic, which specializes in scalp/hair, since 2021. SonoRepro has miniaturized this large device to enable full-fledged hair care at home.



SonoRepro™

Home ultrasonic scalp care device

overview

SonoRepro has multiple sales channels and is priced at 125,000 yen.

Currently, the product is only available in Japan.

retail store

Bic camera



b8ta



Yodobashi Camera

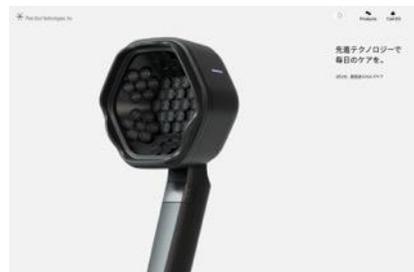


Tsutaya Books



EC site

Own EC site



Amazon, Rakuten etc.



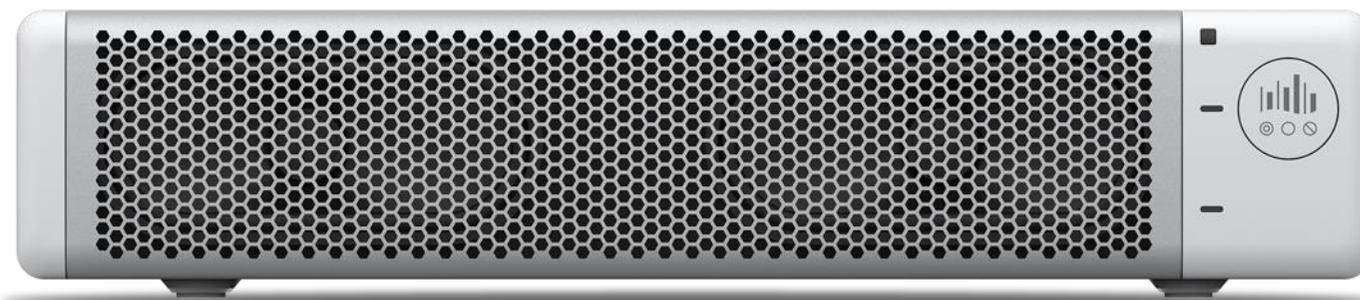
lease

kikito, Rentio, airCloset Mall



kikippa™

gamma wave sound care



Overview

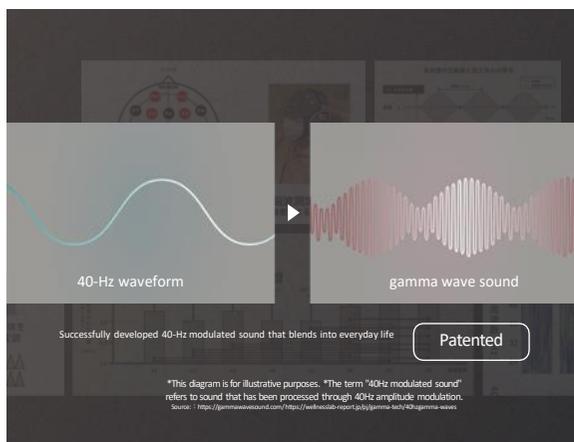
kikippa can be used as a desktop speaker

With a functioning acoustic stimulation device, it will be released in Japan in April 2023.

It was released in kikippa uses our technology to amplitude modulate everyday sounds such as TV and radio broadcasts. Users can connect kikippa to a television set, radio, or other audio device using an audio cable. kikippa was developed in collaboration with Shionogi & Co., Ltd.

Provided Value

kikippa has a dedicated website and LINE integration feature. Users can view their own device usage history, and caregivers can check the usage status of their care recipients.



VUEVO™

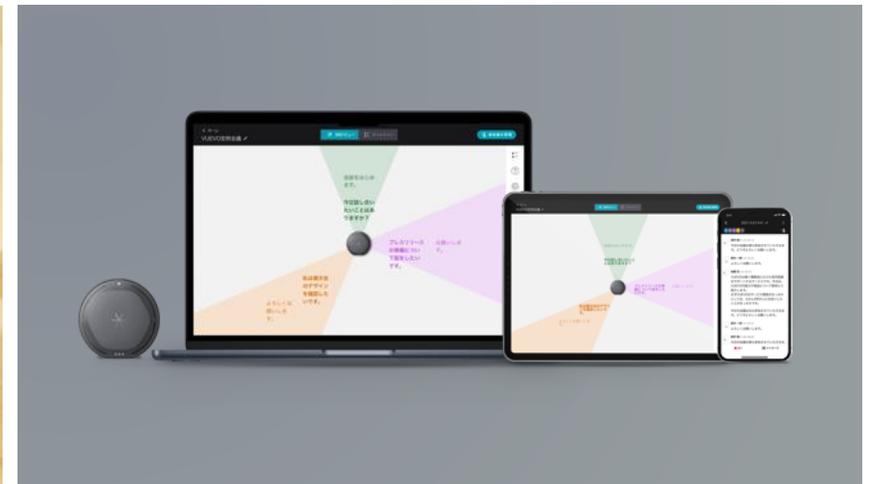
An innovative transcription service born from interviews with over 100 people with hearing loss (DHH)

Overview

VUEVO is a series of products designed to assist people who are hearing impaired. VUEVO microphones provide microphone-identified speaker direction and present utterances through an intuitive user interface on computers, tablets, and smartphones. VUEVO Glasses are wearable devices that superimpose speech content on the speaker in real space within the visual field of the user wearing glasses. VUEVO was developed in collaboration with Sumitomo Pharma Co., Ltd.

Provided Value

Unlike hearing aids, VUEVO can display a transcription of the audio and show you who is speaking. This is especially useful for group conversations. People with complete hearing loss can also use VUEVO. Due to the complementary nature of the product's features, it can be used in conjunction with existing hearing aids.



VUEVO™

Sale

PxDT sells and provides devices and monthly services to clients.

The device price is 45,000 yen, and the usage fee is 30,000 yen per month. The initial setup fee is 100,000 yen.

VUEVO sales website



VUEVO leaflet



VUEVO banner (for exhibitions)



iwaseMI™

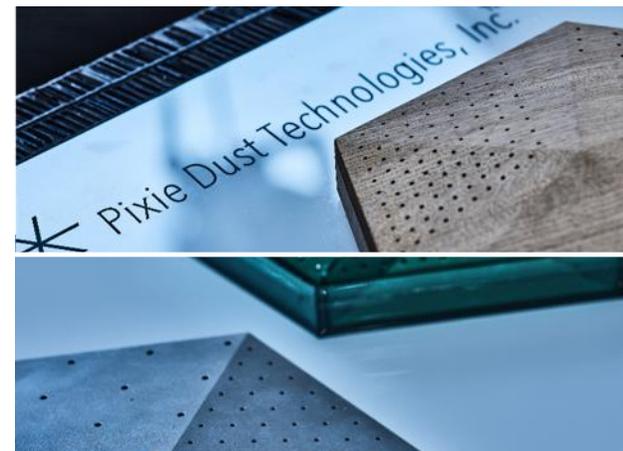
Paradigm shift from materials to structures

Overview

iwaseMI is a product series of sound-absorbing materials utilizing acoustic metamaterials designed with our proprietary technology. Advancements in computer performance and artificial intelligence have enabled large-scale simulations to be conducted at high speeds. Leveraging these technological resources, we developed a new acoustic metamaterial, leading to the release of multiple variations of iwaseMI.

Provided Value

Many existing sound-absorbing materials absorb sound based on the properties of the material, whereas iwaseMI absorbs sound through its structure. Thanks to this feature, we were able to develop iwaseMI, a lightweight sound-absorbing material offering a high level of design flexibility. It can be easily installed on an indoor wall using double-sided tape or magnets. If the resident moves, it can be moved to the new location and continue to be used.



Sound absorbing metamaterial

iwaseMI™ | IX-α

Released in July 2022



iwaseMI™ | RC-α

Released in December 2022



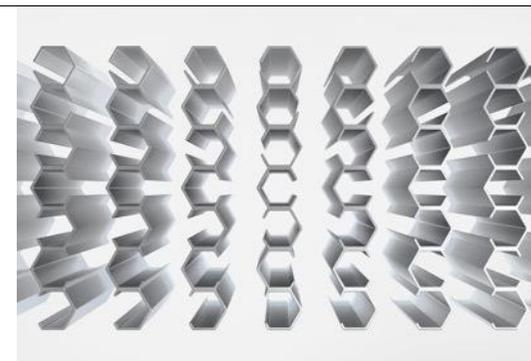
iwaseMI™ | SQ-α

Released in May 2023



Sound insulation metamaterial

Exploring the market with new technology



iwaseMI™

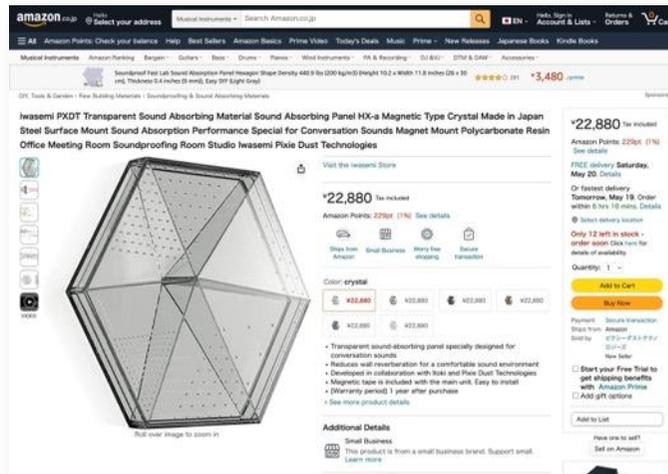
Sale

iwaseMI has multiple sales channels and is currently available in Japan. Additionally, in March 2023, we soft-launched a portion of iwaseMI to prominent American professionals such as architecture and interior design firms "iwaseMI™ RC-α" the CES 2024 Innovation Award in the "Home Appliances" category at the Eureka Park Japan Pavilion at CES 2024, held in Las Vegas, USA on January awarded y 9th to 12th, 2024.

In-house direct sales



Amazon Japan



Orgatec Tokyo 2023 situation



Sold by Itoki



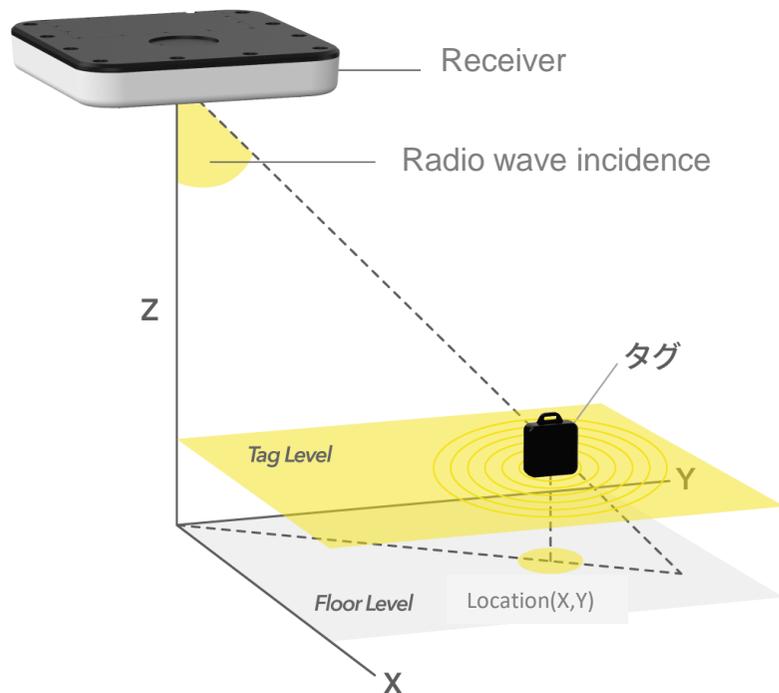
CES 2024
Innovation Awards



Precise Location information
change the world.

Overview

hackke is a technology that can detect location information of people and objects indoors with high precision and at a reasonable price. Compared to conventional low-precision Bluetooth positioning systems, the accuracy has been improved approximately 10 times, and positioning can be performed within 1 meter on average.



Provided Value

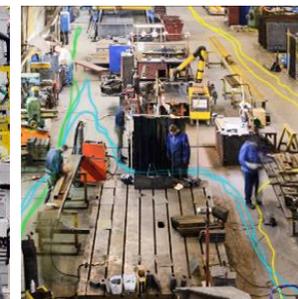
The 1m accuracy enables the visualization of people and object movements, facilitating the analysis of data to provide useful suggestions. For instance, in offices, hackke can manage and visualize the usage status of available workstations. In manufacturing facilities, distribution warehouses, construction sites, and similar settings, it can assist with asset management and tracking man-hours, thereby enhancing production and work efficiency. It also aids in determining suitable locations for materials and equipment and implementing security measures.



Confirm
location



Man-hour tally



Flow line
analysis



Usage
analysis

KOTOWARI™

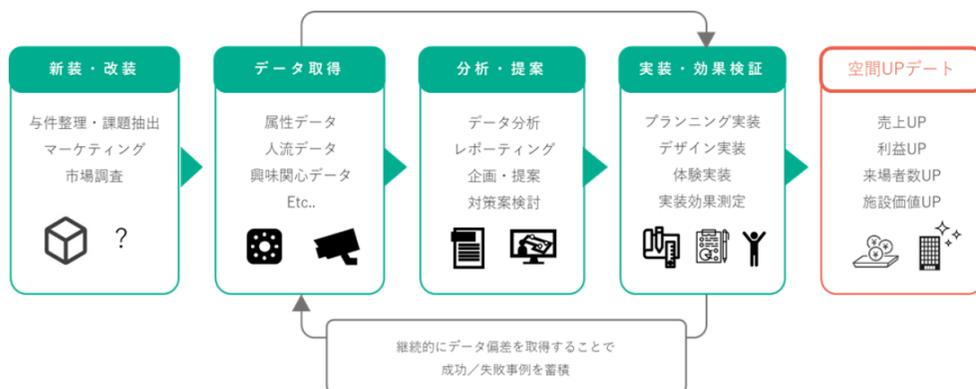
Spatial data solutions

Overview

By acquiring, storing, and utilizing spatial data such as video data and point cloud data, KOTOWARI handles events that occur in space as digital data, and solves various issues related to space creation through applications that comprehensively analyze them.

Sale

We have started providing FAC+ (Factas), a service that combines spatial data analysis and design to maximize spatial value. This service aims to solve problems for business operators and further improve the value of the experience for end users by combining quantitative data with the planning and design of space creation, which has traditionally been done based on sensitivity and sense.

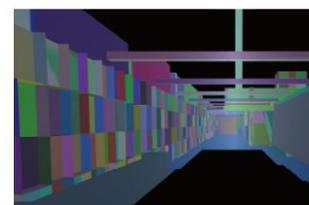


Value provided

Space creation begins with "planning and design," engaging various stakeholders in each phase, including "construction," "use and operation," and "maintenance." By analyzing images captured by cameras, spatial design based on data can be achieved, thereby maximizing the value of the space. Furthermore, analyzing footage from within a construction site enables the monitoring of construction progress without the need for on-site visits, thus leveraging digital advancements to address labor shortages within the industry.

R&D

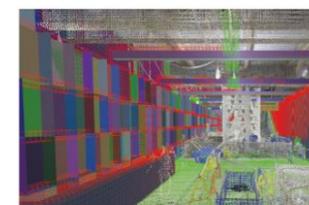
We are conducting research and development aimed at improving quality and productivity of confirmation work at construction sites. In particular, we are developing a solution that allows us to remotely check the finished product by superimposing 3D models such as BIM with point cloud data from the site.



BIM データ



点群データ



BIM と点群から生成した出来形ビュー
(緑エリア：施工完了、赤エリア：未完了)

This presentation includes forward looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, regarding, among other things, our plans, strategies and prospects -- both business and financial. Although we believe that our plans, intentions and expectations reflected in or suggested by these forward looking statements are reasonable, we cannot assure you that we will achieve or realize these plans, intentions or expectations. Forward looking statements are inherently subject to risks, uncertainties and assumptions. Many of the forward looking statements contained in this presentation may be identified by the use of forward looking words such as “believe,” “expect,” “anticipate,” “should,” “planned,” “will,” “may,” “intend,” “estimated,” and “potential,” among others. Important factors that could cause actual results, developments, and business decisions to differ materially from those anticipated in these forward looking statements include, among other things: (i) our expectations regarding our revenue, expenses, and other operating results; (ii) our efforts to successfully develop and commercialize our technologies and related products; (iii) the implementation of our strategic plans for our business and products and product candidates; (iv) the size of the market opportunity for our products and product candidates and our ability to maximize those opportunities; (v) our ability to obtain and maintain any needed regulatory approval of our product candidates; (vi) our expectations regarding success in testing for our product candidates; (vii) the costs and success of our marketing efforts, and our ability to promote our brands; (viii) our expectations regarding our ability, and that of our manufacturers, to manufacture our products; (ix) our competitive position and the development of and projections relating to our competitors or our industry; (x) our ability to obtain adequate financing in the future on terms acceptable to us; (xi) our ability to consummate strategic transactions, which may include acquisitions, mergers, dispositions, or investments; (xii) our ability to identify and successfully enter into strategic collaborations in the future, and our assumptions regarding any potential revenue that we may generate thereunder; (xiii) our ability to exploit the intellectual property rights jointly owned with our collaborators in a manner beneficial to us; (xiv) our ability to obtain, maintain, protect, and enforce intellectual property protection for our technologies and related products and services, and the scope of such protection; (xv) our ability to operate our business without infringing, misappropriating, or otherwise violating the intellectual property or proprietary rights of third parties; (xvi) our ability to respond to national disasters, such as earthquakes and tsunamis, and to global pandemics, such as COVID-19; (xvii) the regulatory environment in which we operate; (xviii) our plans with respect to use of proceedings from this offering; (xix) our ability to attract and retain qualified key management and technical personnel; and (xx) our expectations regarding the time during which we will be an emerging growth company and a foreign private issuer. Before you invest, you should carefully read our Annual Report on Form 20-F for the fiscal year ended April 30, 2023, as the same may be amended from time to time, and our other filings with the SEC, including the factors described in the “RISK FACTORS” section of the Annual Report and other documents that we have filed, and will subsequently file, with the SEC to better understand the risks and uncertainties inherent in our business and industry and for more complete information about us and the offering. You may get these documents for free by visiting EDGAR on the SEC’s website at www.sec.gov. These forward looking statements speak only as of the date of this presentation, and we do not undertake or accept any obligation or undertaking to release publicly any updates or revisions to any forward looking statements to reflect any change in our expectations or any change in events, conditions or circumstances on which any such statement is based, except as required by law. All forward looking statements attributable to Pixie Dust Technologies, Inc. or a person acting on its behalf are expressly qualified in their entirety by this cautionary language.