

UB **V**ENTURES
SaaS Annual Report
2022

The Key to
**Industry
Transformation**

The Second Chapter of SaaS: Transitioning from Bubble to Established Industry

In 2022, listed SaaS companies suffered a dramatic fall in stock prices. IPOs struggled far more than expected, and global crossover investors have fallen quiet after a period of trend-setting activity.

Has the era of emerging SaaS come to an end? If we look at the fundamentals, the number of listed SaaS companies with ARR (annual recurring revenue) exceeding JPY 10 billion has increased to seven, with top players reaching JPY 20 billion.

Furthermore, private vertical SaaS companies have been undergoing robust growth and large-scale fundraising. The amount of funds raised by private SaaS companies reached a record high of JPY 206.3 billion.

SaaS is increasingly being used not only by early adopters but also the majority, namely regional companies and SMEs, an indication of its steady progress toward becoming an established industry.

On the other hand, we are seeing an even starker gap between the winners and losers in the SaaS market. Those that have been late to shift to a resource-efficient management model, as well as those dependent on a single product and reaching the limit of growth, have not been able

to break out of low valuations.

Indicators such as burn multiple (investment efficiency) and ARR per employee have also become common as the market looks for higher profit margins and management efficiency in addition to growth rates.

I suggest that we view 2022 as a year of going back to the basics of management: quality of growth, profit-earning capacity, and sound capital efficiency, which had previously been obscured by the SaaS bubble.

This report consists of four parts: "Overview," a summary of the latest data on the SaaS market; "Insight," which describes the latest trends for 2023; "Vertical SaaS Landscape Updates," an



Osamu Iwasawa

UB Ventures
Managing Partner & CEO

Osamu IWASAWA is a Managing Partner and CEO of UB Ventures. Prior to founding UB Ventures, Osamu worked as an equity/industry research analyst at Lehman Brothers and Barclays Capital. He was later a management consultant at Nomura Research Institute, where he specialised in M&A advisory, business strategy planning, and turnaround management, before joining Uzabase in 2011. As an executive officer, Osamu took charge of business development at SPEEDA, before moving to Hong Kong in 2013 to help establish SPEEDA's Asia business. After serving as Head of the Asia business, he returned to Tokyo and founded UB Ventures in February 2018. He has an M.E. in Civil Engineering from Keio University.

analysis of the growth factors of the rapidly expanding vertical SaaS market; and "SaaS Meets Industrial IoT," which highlights the emerging trend of integration between hardware and SaaS.

SaaS has the potential to emerge as an industry at the core of Japan's international competitiveness.

Now is an important time for us to keep addressing the fundamental issues in the SaaS ecosystem without being distracted by superficial outcomes.

The SaaS bubble has burst; in its second chapter, we are witnessing the establishment of the SaaS industry.

Theme:
ARR

Top SaaS players maintain growth as ARR reaches JPY 20bn; seven companies generate ARR over JPY 10bn

- Horizontal SaaS
- ▼ Vertical SaaS

Factors enabling Japanese SaaS to surpass ARR JPY 10bn

Dominating Japan's major SaaS market segments such as ERP and CRM (Sansan)

Building a robust partner community to ensure widespread use of versatile products (Cybozu)

Multiple product offerings in back-office domain

- Suite (freee, Money Forward)
- Best of Breed (RAKUS)

Providing de facto standard functionalities in specific industries (Infomart)

* If ARR is not disclosed, it is calculated by quarterly non-consolidated sales x 4, etc. (CloudSign includes usage-based revenue).

* While the data focuses on recurring sales, the same standard may not apply across all figures. The data mainly covers B2B SaaS.

* Money Forward's disclosed SaaS ARR (including Home Premium and others) was JPY 15,06bn.

* Uzabase's disclosed Group ARR (including the NewsPicks business) was JPY 14.3bn.

* Aggregated from data available as of end November 2022.

ARR
20billionARR
10billion

Rank	Company	Detail [SaaS Business line]	ARR (JPY bn)	ARR Growth rate (%YoY)
1	Sansan	Business card management, invoice processing ● Company-wide	20.8	21.9
2	RAKUS	Expense reimbursement, invoicing ● Cloud business sales	20.1	34.8
3	Cybozu	Groupware ● Cloud-related business	19.4	23.0
4	freee	Accounting/ERP ● Company-wide	16.5	36.3
5	Money Forward	Accounting/ERP ● Business (Sole Proprietors + Corporations) + X	13.1	47.9
6	Uzabase	Corporate/industry analysis, ABM ● SaaS business	11.8	29.0
7	Infomart	Order management ▼ Company-wide	10.0	13.1
8	SMS	Nursing care management ▼ Nursing care business (Kaipoke)	8.4	18.0
9	Plus Alpha Consulting	Talent management ● Company-wide	7.8	32.1
10	Safie	Cloud recording ● Company-wide	6.9	32.4
11	PLAID	Online customer analysis ● Consolidated revenue	6.6	14.3
12	HENNGE	ID management ● HENNGE ONE business	5.6	18.2
13	kaonavi	Talent management ● Company-wide	5.5	32.6
14	PKSHA Technology	AI chatbot, FAQ ● AI SaaS	4.9	23.9
15	Chatwork	Collaboration ● Chatwork business	4.3	33.4

Rank	Company	Detail [SaaS Business line]	ARR (JPY bn)	ARR Growth rate (%YoY)
16	Bengo4.com	Electronic contract ● CloudSign	4.1	53.8
17	Medley	Online medical care ▼ Medical Platform	4.0	51.0
18	Wantedly	Recruitment ● Recurring earnings	3.8	21.1
19	Link and Motivation	Employee engagement ● Motivation Cloud Series	3.7	30.1
20	Yappli	Low-code app development ● App operation platform business	3.5	30.3
21	AI inside	AI inside ● AI OCR Recurring	3.4	32.2
22	Smaregi	POS register ▼ Cloud service monthly usage fee	3.1	43.9
23	User Local	Website analysis ● Company-wide	3.1	25.0
24	TeamSpirit	ERP ● Company-wide	2.9	17.4
25	Nulab	Project management ● Company-wide	2.6	14.4
26	SpiderPlus	Construction drawing management ▼ ICT business unit	2.6	28.0
27	Cyber Security Cloud	Web security ● Company-wide	2.4	30.6
28	Startia Holdings	Marketing automation ● Digital marketing business	2.2	16.0
29	oRo	ERP ● Cloud solution business, recurring customer revenue	2.1	19.0
30	Photosynth	Entry/exit management ● Company-wide	1.9	27.6

Theme:
Valuation
Multiples

Valuations in adjustment phase with weakness in emerging stocks; EV/Revenue remains flat since late 2022 after bottoming at 4.5x

EV / Revenue based on forecasts of top SaaS companies



Criteria for high multiples:





Sustained growth and margins beyond ARR JPY 10bn

Japanese SaaS stocks entered a major adjustment phase reflecting global weakness in emerging stocks. Their average EV/Revenue multiple has remained flat since bottoming at 4.5x in June.

Companies with high multiples around 10x include Money Forward, which is expected to sustain growth beyond ARR of JPY 10bn, as well as RAKUS and Plus Alpha Consulting, which are achieving both growth and profitability.

With interest rates expected to rise further in 2023 and beyond, it is likely that investors will increasingly focus on profit generation.







Top 4 companies by EV/Revenue
as of December 30, 2022

—	 楽! ラクス	10.3x
—	 Money Forward	9.8x
—	 プラスアルファ コンサルティング	9.8x
—	 SPIDERPLUS	7.1x

Theme:
IPO

Weak market reflected in smaller deals and lower valuations

SaaS IPOs since end of 2021, when the market worsened

	Product type	ARR at time of IPO (JPY bn) YoY (%)	Market Cap. based on offering price (JPY bn) Initial price change (%)	PSR (x) time of offering / as of Dec 30, 2022
	Management system for tutoring schools Nov 15, 2022	JPY 0.4bn +74.1%	JPY 2.5bn +58.6%	4.0x → 2.7x
	Process support for home nursing stations Sep 16, 2022	JPY 1.3bn +46.2%*1	JPY 11.8bn +130.0%	7.8x → 16.1x
	Project management June 28, 2022	JPY 2.5bn +20.0%*2	JPY 6.5bn -4.5%	2.3x → 1.5x
	Store marketing Dec 24, 2021	JPY 1.1bn +119.0%	JPY 6.3bn +19.3%	2.7x → 1.3x
	Booking management for barbers / hair salons Dec 22, 2021	JPY 0.8bn +50.2%	JPY 11.9bn -8.0%	17.9x → 4.1x
	Financial service system Dec 22, 2021	JPY 0.9bn +302.0%*3	JPY 62.9bn -23.3%	23.7x → 5.3x

IPOs held back in 2022

Three IPO deals were conducted by pure SaaS players in 2022: POPER, provider of the business management platform Comiru; eWeLL, which provides iBow to home nursing stations, and Nulab, provider of the project management tool Backlog.

In 2022, with the decline of emerging stocks, some companies were reported to have postponed their IPOs. Newly listed SaaS companies tended to be relatively small, with ARR between several hundred million and 2.5 billion yen.

In 2022, with the decline of emerging stocks, some companies were reported to have postponed their IPOs. Newly listed SaaS companies tended to be relatively small, with ARR between several hundred million and 2.5 billion yen.

In half of all IPOs, the stock initially priced lower than the offering price, indicating poor market conditions.

While PSR multiples temporarily rose following some IPOs, they converged to industry levels after a certain period.

*1 Calculation: Cloud service revenue in Q4 of fiscal year ended Dec 31, 2021 multiplied by 4

*2 Growth rate: 2020-2022 CAGR

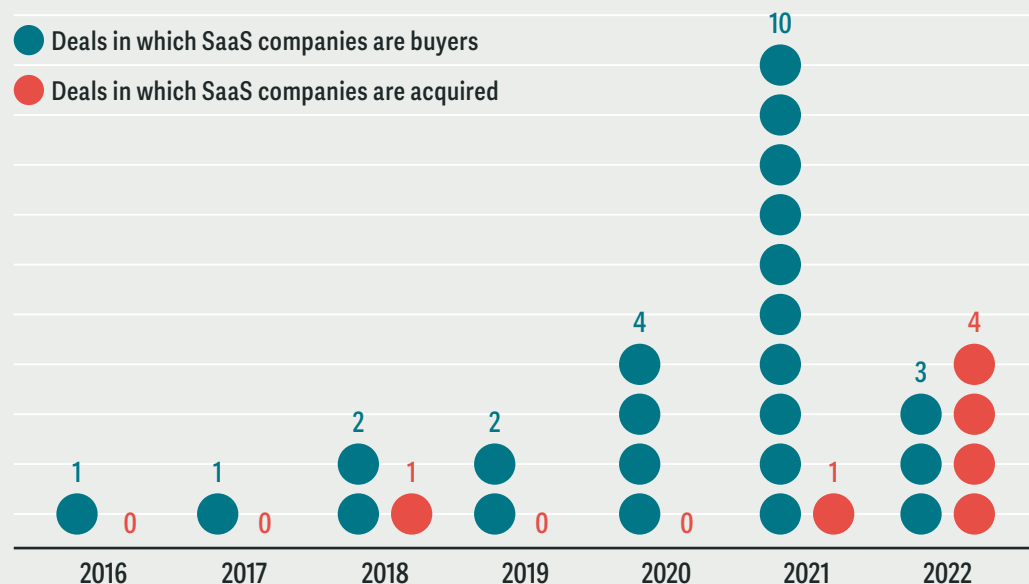
*3 As ARR is not disclosed, refers to full-year revenue of Financial Infrastructure business.

Theme:
M&A

Lower valuations have led to a number of SaaS companies being acquired. Growth methods other than IPO are on the rise

Notable M&As of Japanese SaaS companies in 2022

Buyer => Target	Announcement date	Buyer	Target	Target industry	Voting interest (%)	Deal value (JPY mn)
● SaaS → SaaS	2022.12.16	Chatwork	MINAGINE	HR management system	100	600
● Fund → SaaS	2022.11.9	THE SHAPER (The Carlyle Group)	Uzabase	Business intelligence platform	100	55,633
● Business corporation → SaaS	2022.10.5	Teijin	3 Sunny	Healthcare business assistance SaaS	100	-
● SaaS → associated industry	2022.8.5	Plus Alpha Consulting	Growth Up	Recruiting service for new graduates	65	960
● Business corporation → SaaS	2022.5.22	DeNA	Allm	Medical/healthcare-related mobile ICT business	57.5	29,254
● Business corporation → SaaS	2022.5.20	CareerIndex	ContractS	CLM/contract management service	53	399
● SaaS → SaaS	2022.5.9	freee	Mikatus	Cloud system for tax accountants	100	2,075



[Coverage]

* M&A deals in which Japanese companies whose main business is SaaS are either buyers or targets.

* The acquisition of Fringe81 by Sansan in 2021 was an acquisition of preferred shares. Sansan is considering making Fringe81 a consolidated subsidiary in the future.

* Data compiled from timely disclosures and press information; "-" indicates undisclosed; minority investments are also included.

Visible trend of PE funds and business corporations acquiring SaaS companies

Up to 2021, as SaaS companies continued to expand, they acquired various businesses to gain entry into adjacent areas. In 2022, as valuations declined, there was an increased trend of SaaS companies being the target of acquisition.

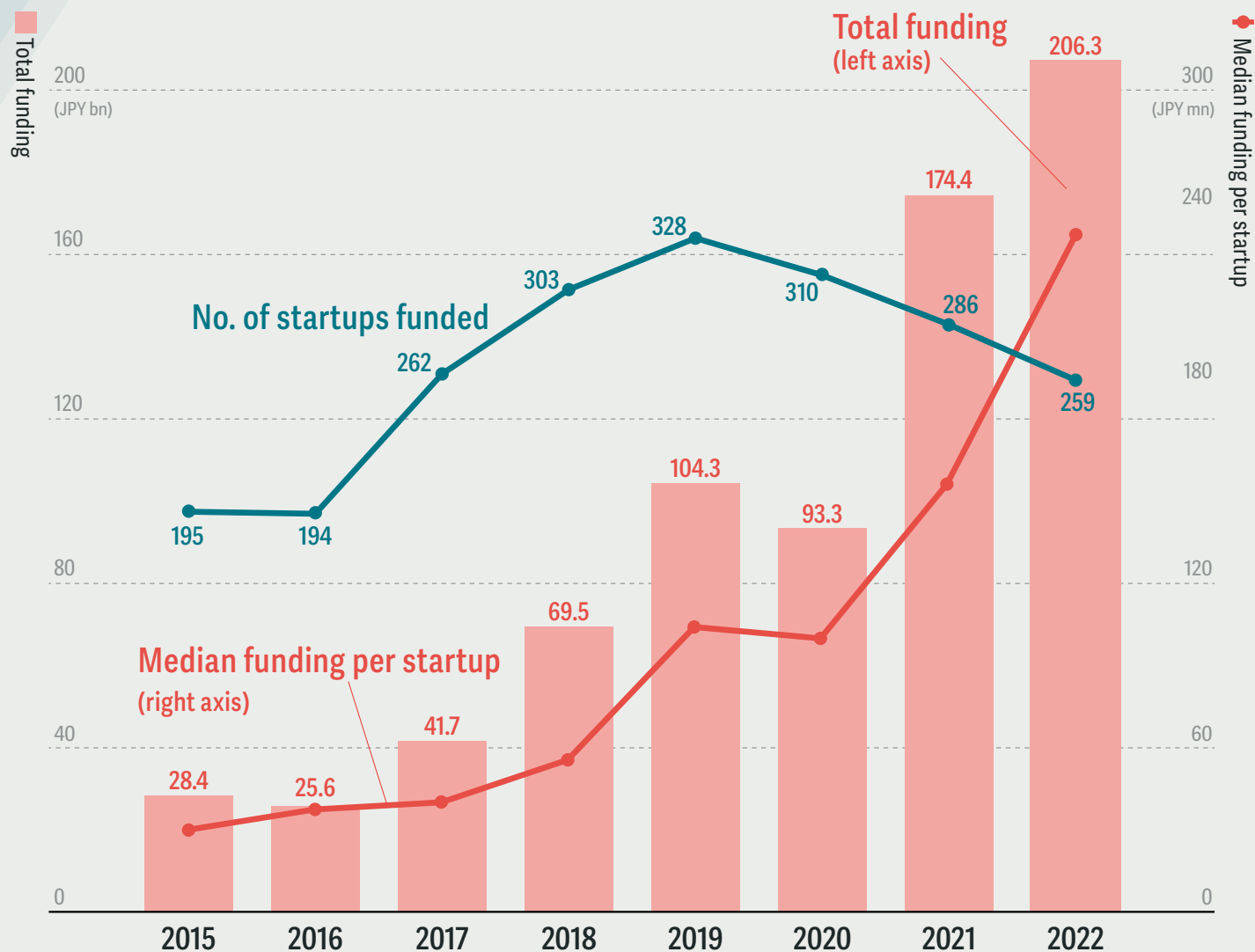
Several notable acquisitions were made by business corporations: DeNA invested JPY 29.2bn in Allm, which provides solutions in the medical/healthcare field, making it a subsidiary. ContractS (formerly Holmes) became a consolidated subsidiary of CareerIndex, a company listed on the TSE Prime Market.

A wide variety of M&A deals have taken place: KKR's acquisition of Yayoi and Carlyle's TOB of Uzabase are examples of large investments by PE funds, which have strong synergies with the subscription business.

Among SaaS companies, Money Forward, PLAID, Chatwork, and others have established CVCs to explore investment opportunities in startups with potential synergies with their own products.

Theme:
Startup
Funding

Total amount and No. of funding of Japanese SaaS startups



Due to maturation of SaaS ecosystem, the number of funded startups decreased while funding per startup increased

While the number of SaaS startups raising funds continued to decrease over the past year, the median amount raised increased to JPY 260 million, a sign that the investment stage is maturing. Even during what was called a slow market, companies such as LegalOn Technologies (former LegalForce), and ANDPAD raised over JPY 10 billion in 2022.

Top 10 Japanese SaaS startups by funded amount in 2022

Company	Total funding (JPY bn)
LegalOn Technologies	13.7
ANDPAD	10.7
KAKEHASHI	7.7
Ubie	6.3
jinjer	5.2
SUPER STUDIO	5.0
JOSYS	4.6
XICA	4.5
oVice	4.0
alt	3.5

Theme:
Efficiency in
ARR acquisition

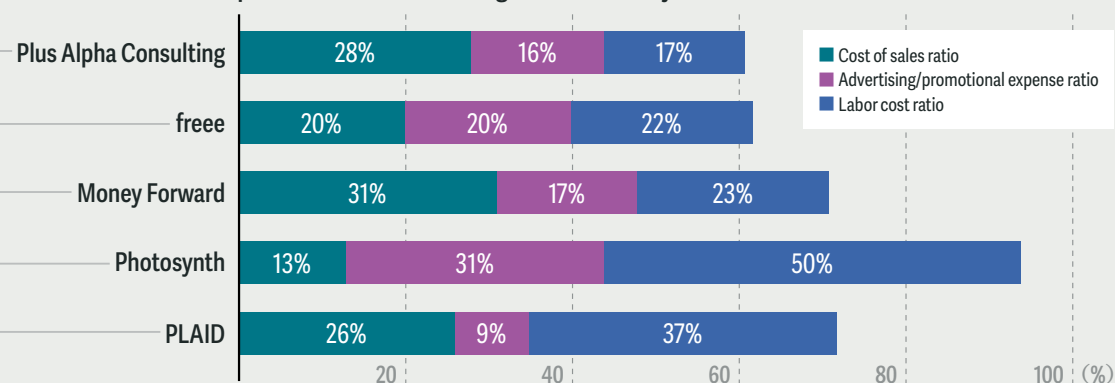
Investors are interested not only in growth but also in underlying efficiency and profitability

Cost for
SaaS companies to
acquire
JPY 100mn
in new ARR

Gross Burn (cost of sales + SG&A) / New ARR

Company	(x)
Plus Alpha Consulting	2.8
User Local	2.9
Cyber Security Cloud	3.4
AI inside	3.6
rakumo	3.6
kaonavi	3.7
Smaregi	4.2
CYND	4.3
freee	4.3
RAKUS	4.3
CS-C	4.6
Chatwork	4.8
Sansan	5.6
Cybozu	5.7
SpiderPlus	5.8
Money Forward	5.9
Safie	5.9
HENNGE	6.0
Yappli	6.2
Uzabase	6.4
Photosynth	6.5
TeamSpirit	7.9
Infomart	8.5
PLAID	9.8

Cost breakdown of top/middle/bottom tiers of growth efficiency



Summary of cost breakdown for Japanese SaaS companies

Entering 2022, many investors emphasized the importance of investment efficiency at SaaS companies in addition to traditional growth and profit indicators.

High-growth companies are also expected to demonstrate disciplined investment and underlying strength, with prominent U.S. venture capital firms setting benchmarks for capital efficiency indicators such as burn multiple (net burn / new ARR).

Among Japanese SaaS companies, large differences can be seen in the efficiency of new ARR acquisition relative to costs spent.

Plus Alpha Consulting (2.8x) has been acquiring customers efficiently, keeping its advertising and

personnel expense ratios in the 10% range while recently showing high ARR growth. freee (4.3x) and Money Forward (5.9x) both continue to make upfront investments at a loss, with similar SG&A compositions, but they differ in terms of efficiency due to the difference in cost ratios.

Companies with high ARR acquisition costs, such as PLAID (9.8x) and Photosynth (6.5x), are making substantial upfront investments, with labor cost to sales ratios exceeding 30%. With uncertainty in the capital markets, attention towards efficiency indicators continues to be high.

With uncertainty in the capital markets, attention to efficiency indicators continues to be high.

* Calculation: Gross burn (cost of sales + SG&A expenses) divided by newly acquired ARR for the latest quarter.

* Data based on the most recent quarter as of December 31, 2022. Cost of sales and SG&A expenses are converted to 12 months from the latest quarter.

* In cases where ARR is not disclosed, newly acquired ARR is estimated by calculating the YoY change of quarterly recurring revenue multiplied by 4, or similar methods.

SaaS Insights

- ▶ Potential of SaaS Market
- ▶ Diversifying methods of financing
- ▶ Issues and solutions for PLG in Japan
- ▶ Sales partnership strategy to capture majority segment

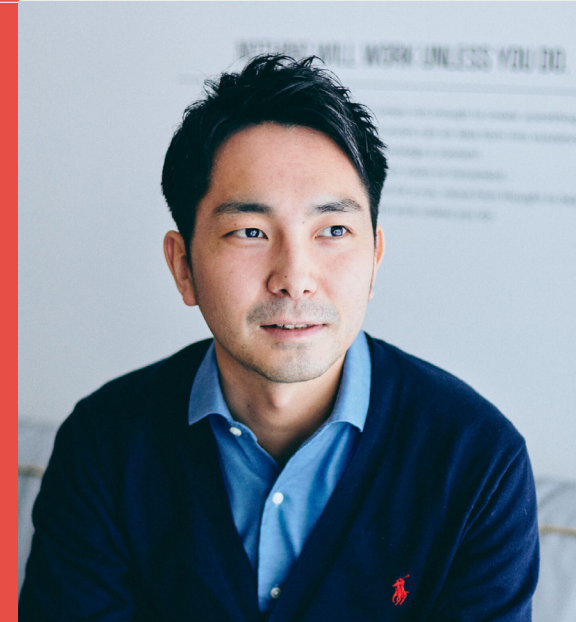
As SaaS starts to penetrate the majority segment of the market, new possibilities and issues are arising.

Many companies benchmark the success of their SaaS products at ARR JPY 10 billion. However, given the market size in Japan, only a small number of companies would be able to reach that benchmark.

Meanwhile, looking at the activities of top SaaS players in Japan, we can see robust strategies that ensure sustained growth.

Moreover, for SaaS to spread from early adopters in urban areas to SMEs in regional economies, there seems to be a necessity for startups to expand sales through partners, in addition to the common approach of direct sales.

What are the key strategies and tactics deployed in the growth of SaaS? We will highlight the real situation based on data collected by UB Ventures.



Takuya Oshika

Principal, UB Ventures

Takuya joined Uzabase in 2013 and worked as a SPEEDA consultant supporting customers at financial institutions and professional firms. He later led the launch of SPEEDA's overseas business, and took charge of the launch of its Customer Success team, management of multiple offices, customer assistance with corporate/industry research, as well as product/content planning and development. He joined UB Ventures in February 2021.

Theme:
Potential of Japanese SaaS Market

Companies need to consider market potential by product category and develop multiple product offerings early on

No. of Japanese companies
(by capital)

Enterprises
28,000
(1.8%) ▶ Capital JPY 100mn+

Mid-size companies
115,000
(7.3%) ▶ Capital JPY 30mn -100mn

Small companies
1,430,000
(90.9%)

Ratio of SaaS usage among Japanese companies*

× **39%** =

The market size of an single SaaS product is capped at around JPY 16-20 billion. Whether companies can sustain growth will depend on the ability to deploy additional products and/or expand into adjacent areas such as Fintech and marketplace, based on their awareness of market potential in Japan.

Limit of market size for single SaaS product

Estimated

JPY 16-20bn

Estimated limit of the SaaS market for large enterprises

JPY 19.6bn

28,000 companies x 39% x average price (JPY 1.8mn/year)

Estimated limit of the SaaS market for mid-sized companies

JPY 16.1bn

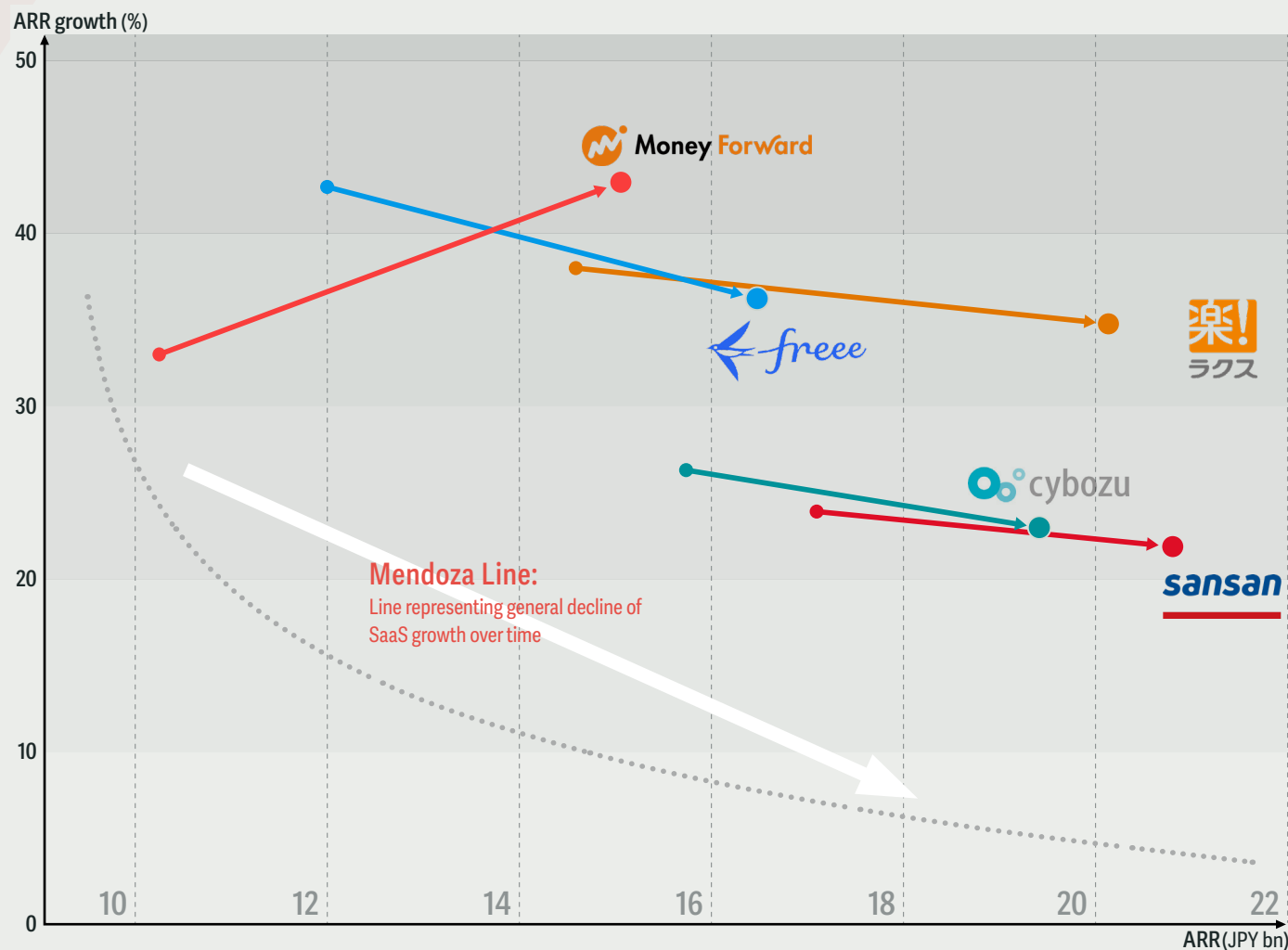
115,000 companies x 39% x average price (JPY 360,000/year)

* Calculation based on survey of 515 companies by Gartner Japan (as of June 2021)

Theme:
Potential of Japanese SaaS Market

Top SaaS companies with ARR over JPY 10 billion launching multiple products and maintaining high growth following IPO

2021 and 2022 ARR growth rates of top 5 SaaS companies in Japan



Post-PMF speed of growth determines continuous growth of ARR

ARR growth rates of U.S. and Japanese SaaS companies tend to decline by around 20% each year.*1

Meanwhile, the top Japanese SaaS companies with ARR over JPY 10bn have maintained the same level of growth as they continue to expand.

Institutional investors often demand consistent 20% growth from growth stocks.

On the other hand, with increased expectations for profits, which puts pressure on advertising and personnel expenses, it is worth watching whether or not this trend can be maintained.

Three reasons for Money Forward's accelerating growth

- 1 Shift in customer mix**
For the enterprise product Money Forward Cloud, the share of mid-sized companies has expanded to 35% of sales in the last four years.
- 2 Cross-selling of products with the core system at the center**
"We are increasingly taking large-scale orders, such as companies with 500 employees ordering six of our products, which generates JPY 8 mn in ARR."
(comment by IR) *2
- 3 M&A of companies in adjacent areas**
Adding HITTO and R&AC into the group to capture synergies

*1 From "The Mendoza Line for SaaS Growth," Bessemer Venture Partners

*2 From summary of Q&A at full-year financial results briefing for the fiscal year ended November 30, 2022

Theme:
Finance

2022 marked the advent of venture debt in Japan. What is the outlook for 2023?

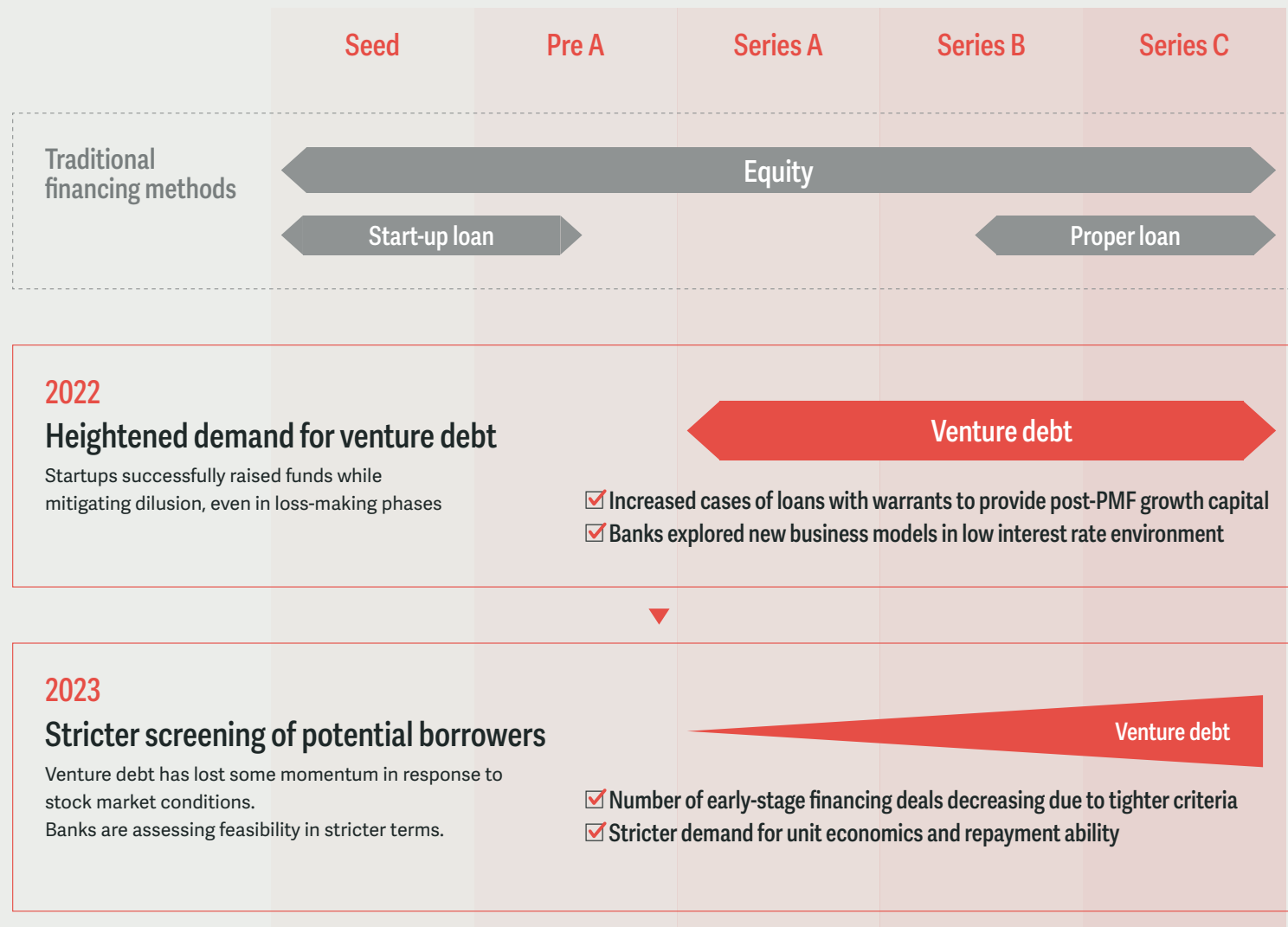
Surge in demand for venture debt to complement equity financing; stricter screening observed as a trend in 2023

Since around 2022, there has been an increasing interest in new financing methods, including venture debt and revenue-based finance.

As valuations worsened in the private equity market, the significant dilution resulting from equity financing has surfaced as an issue.

Many startups have attempted debt financing, turning to venture debt, which allows for even loss-making startups to borrow money.

Meanwhile, the screening process in venture debt is becoming stricter, reflecting the ongoing deterioration of market conditions and interest rate hikes.



Theme:
FinanceSuccess and failure cases in venture debt
among SaaS startups

Timing

After PMF

Use of funds

Growth investment

(e.g., advertising/promotion, labor expenses,
recruitment expenses)

Source of repayment

Cash flow from
business growthLeveraging growth
while mitigating dilution

Success!

Timing

After initial user acquisition

Use of funds

Business development,
channel development, etc.(activities that entail high uncertainty, better
to be covered by equity)

Source of repayment

Lacking capital, resulting in
a down round or need for
drastic restructuring to
turn profitableSince the funds are not invested directly
in growth, the company fails to generate
cash flow for repayment and is
forced to spend significant costs in
managing cash to repay the debt.

Failure...

Since the factors considered in debt transactions, including venture debt, are different from those in equity financing, companies need to communicate based on an understanding of the points the banks are most interested in.

For instance, as many SaaS startups assume losses in their business plans due to growth investment, they need to be highly aware of the feasibility of their cash flow for repaying the debt when explaining their prospects to the banks.

Given the recent environment surrounding equity financing, planning to repay debt with future equity financing would entail a high level of uncertainty. Therefore, the decisive factor in utilizing venture debt is whether the company can create a positive cycle of growth investment and additional cash flow.






Mr. Yuki Tanaka

Deputy General Manager,
Venture Business Division
SBI Shinsei Bank

Mr. Tanaka worked in debt collection and solution sales at a megabank and later led corporate revival projects at a consulting firm. He has been involved in startup investment/financing since 2013 and venture debt since 2017.

SaaS startups utilizing venture debt (order by date of disclosure)

Company	Method	Amount	Disclosure date
 FULL KAITEN	Loan with warrants	JPY 200mn	2022.1.6
 KAKEHASHI	Loan with warrants	JPY 1.3bn	2022.2.17
 unilabo	Loan with warrants	JPY 300mn	2022.7.27

* The charts are created by UB Ventures based on research/interviews and do not represent the views of SBI Shinsei Bank.

Theme:
Product Led Growth

How can PLG products overcome the chasm particular to Japan?

While products can go viral, customers' decision-making process and sales channels present obstacles

Since the emergence of Slack and Zoom, product-led growth (PLG) has become common, leading to a wide range of user experiences.

For a SaaS company to reach enterprises that become early adopters, a direct approach by its sales team becomes necessary to navigate the complicated decision-making process and sales channels.

Moreover, since many of the companies in the majority segment have depended on systems integrators, IT trading companies, and OA equipment dealers for their IT infrastructure, partnering with such vendors can open the path to introduce SaaS products.

PLG remains highly effective for SaaS to quickly reach a wide range of users. On this premise, the key to winning in Japan through PLG would be to understand the particular sales channels in Japan and organize sales forces accordingly.

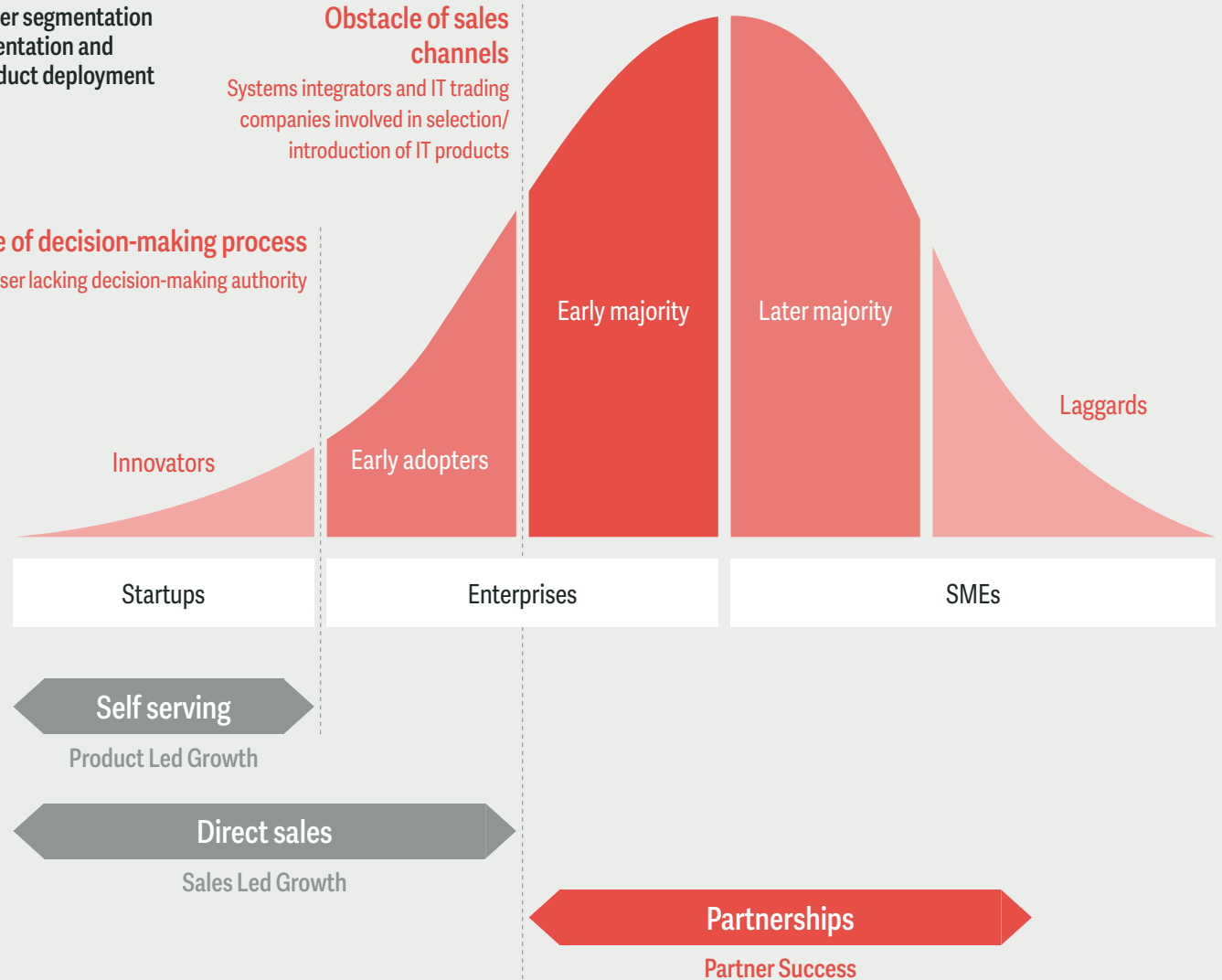
General customer segmentation in SaaS implementation and strategy for product deployment

Obstacle of sales channels

Systems integrators and IT trading companies involved in selection/introduction of IT products

Obstacle of decision-making process

End user lacking decision-making authority



Theme:
**Partner
Strategy**

As SaaS shifts its main target to the majority segment, 80% of listed SaaS companies have established a partner program

Background of growing sales partnerships for SaaS products



SaaS companies

IT sales channels

In Japan, systems integrators and IT trading companies are widely involved in introducing IT products to companies. A survey shows that SMEs purchase IT products directly from the vendor 24% of the time*, which suggests that direct sales alone is not enough to reach the majority segment of the market.

Efficiency of sales activities

While SaaS companies can reach customers efficiently through digital marketing and direct sales in metropolitan areas, the cost-effectiveness worsens significantly when opening offices and acquiring customers in rural areas.



Partners

Users' demand

End-users' demand for SaaS is rapidly increasing, due to the need to build remote working environments and comply with the Electronic Bookkeeping Law, raising the necessity for partner companies to offer a competitive lineup of products.

Exploring business opportunities

In addition to conventional distributors, telecom companies and financial institutions are leveraging their customer networks from their core businesses to promote digital transformation. Partnerships across industries are accelerating, such as Happo-en, a wedding hall operator, acting as a sales agent for EventHub.

High-growing SaaS companies leveraging partnerships



Ratio of partner sales
90%

Direct sales



Ratio of partner sales
70%

Direct sales



Ratio of partner sales
60%

Direct sales



Ratio of partner sales
48.7%

Direct sales

*Data of LINE WORKS based on interview with CraftData, Zoom based on media materials, Cybozu based on 2021 full-year financial briefing materials, Ai inside based on Q2 2023 financial briefing materials

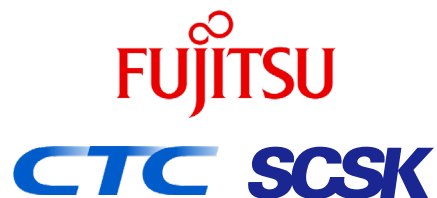
Theme:

Partner
Strategy

Who are the actors delivering SaaS to the majority segment?
Players in different industries willing to sell SaaS, in addition to systems integrators and IT trading companies

Players with IT-related core businesses

Sler

IT trading companies, copy machine manufacturers,
OA trading companiesPlayers aiming to leverage own sales network
and accelerate core business with SaaS

Financial institutions



Accounting/tax firms

Mobile carriers,
telecom companiesFinding good fit with own product is
key for partnership

Before the advent of SaaS, software sales channels were widely covered by IT/OA trading companies and systems integrators, which provided servers, network construction, maintenance services, etc.

Such partner companies specializing in IT services often have nation-wide sales networks, and can become powerful channels for SaaS companies that do not have offices in local regions.

Additionally, entities with large customer bases, such as financial institutions, mobile carriers, and telecom companies, are increasingly offering SaaS solutions to support their customers' digitalization efforts.

Accounting firms and tax accountants are also acting as consultants and sales agents through services provided by free and Money Forward.

"In addition to whether a potential partner has a nation-wide network, it is important to find one that works well with the SaaS product on offer. For instance, a SaaS product in the HR domain might have significant synergies with an operator of HR consulting services."

Mr. Akikuni PartnerSuccess COO

* Logos are for partner companies that handle multiple products of listed SaaS companies, as confirmed by publicly available documents.

Vertical SaaS Landscape Updates

- ▶ Potential of vertical SaaS
- ▶ Startups increasing presence in fundraising and major industries
- ▶ Growth strategy

Vertical SaaS is no longer a small market: A symbolic trend that proves this point accelerated in 2022.

Amid a challenging environment for financing, later-stage companies such as ANDPAD and KAKEHASHI procured large funds, and are rapidly enhancing services in non-SaaS business domains.

Players are emerging in major industries in Japan: In the manufacturing sector, CADDi, the provider of an order management platform, released a SaaS solution.

Many startups are entering the enterprise core system market, where dynamic trends are expected in 2023.



Shinya Iwashita

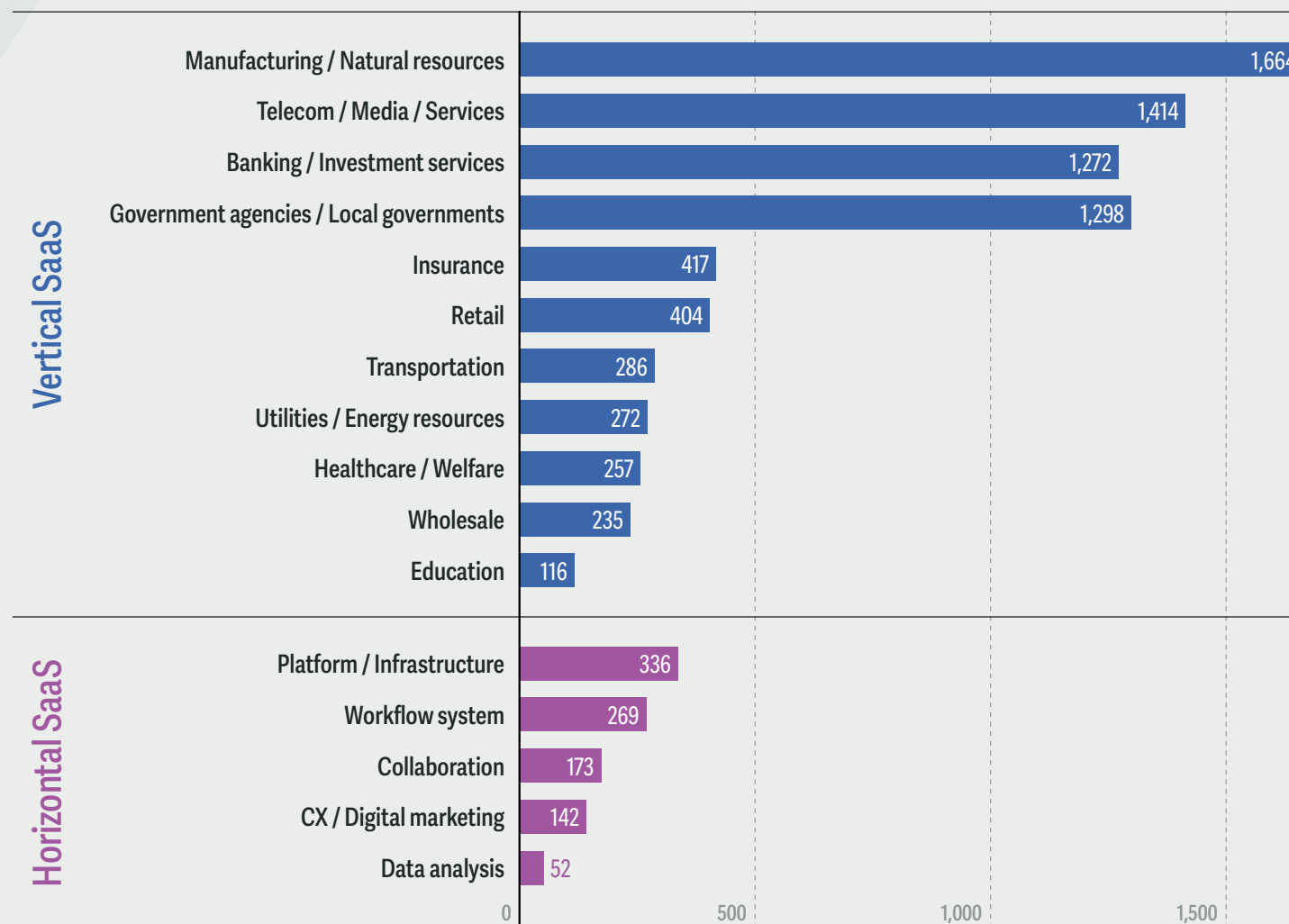
Senior Associate, UB Ventures

Shinya started his career at JGC, a plant engineering company, where he engaged in multiple plant construction projects across Japan and abroad. Afterwards, he joined Nomura Securities' investment banking division in 2018, where he was involved in the sourcing and execution of M&A and financing deals mainly for Japanese manufacturing companies. Shinya joined UB Ventures in November 2021.

Theme:
Market size
Horizontal vs. Vertical SaaS

Major industries in Japan spend huge amounts on IT.
Delivering value across sectors and expanding TAM are keys
for the growth potential of SaaS companies.

2022 spending forecasts by sector in Japan (JPY bn)



Signs of emergence of vertical SaaS giants

Up to recently, vertical SaaS was typically thought of as niche B2B cloud systems. However, in the last several years, notable players have emerged in major Japanese sectors including manufacturing and construction.

By multiplying the IT spendings of each sector by the ratio of cloud spending, we can see that there is a potential market worth over JPY 1 trillion in the major industries.

CADDi, originally the provider of an order management platform for the manufacturing sector, released its SaaS product CADDi DRAWER, which aggregates core data such as drawing images, aiming to establish it as an ERP system.

As another challenger in a huge traditional sector, Shippio (which can be described as a Japanese version of Flexport) is expanding in the transportation industry as the first digital forwarder in Japan.

Startups expanding in major sectors in Japan

Company	Target sector	Enterprise value
ANDPAD	Construction	JPY 85.4bn
CADDi	Manufacturing	JPY 48.1 bn
Finatext Holdings	Finance	JPY 24.2bn
10X	Retail	JPY 14.9bn
Shippio	Logistics	JPY 10bn+

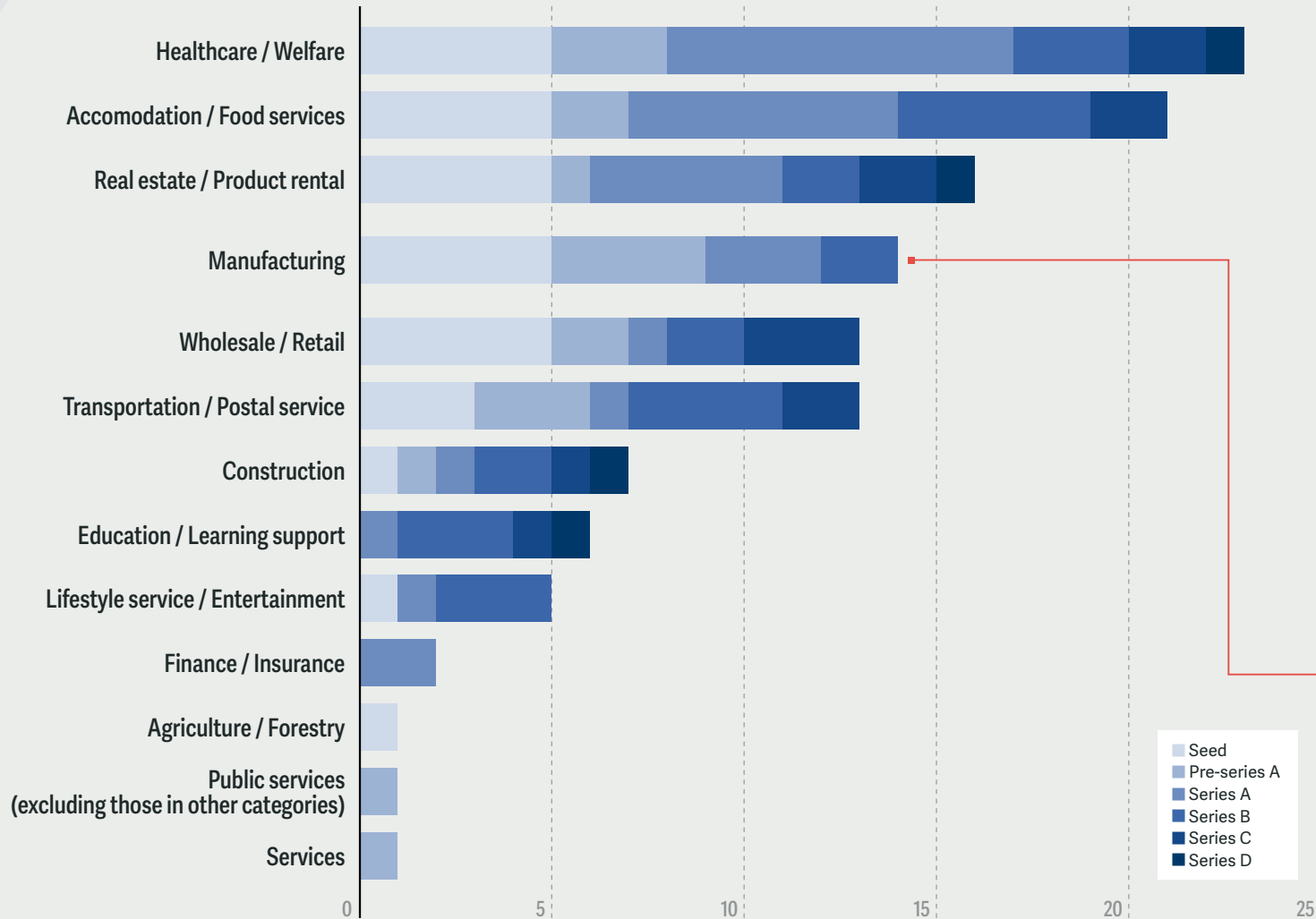
Enterprise value according to INITIAL

*Calculations are as follows, referring to sources listed below. Vertical: Ratio of cloud spending (28%) applied to IT spending forecast by sector (2022); Horizontal: Ratio of SaaS (58%) applied to software market size by category (2022 estimate)
Sources: Gartner "Market Insight: Cloud Shift 2018 to 2022," "Forecast: Enterprise IT Spending by Vertical Industry Market, Worldwide, 2019-2025, 4Q21 Update;" Fuji Chimera Research Institute "New Markets of Software Business 2022"

Theme:
Vertical SaaS /
Private companies

Early-stage vertical SaaS startups in various domains raised funds regardless of the market slowdown

No. of vertical SaaS companies by financing round



Early-stage companies (i.e. seed, pre-A) represent a large portion of vertical SaaS

In the early stage, which tends to be less affected by the slowdown of the capital market, a large number of financing rounds took place in 2022. Looking at the number of start-ups, the healthcare/welfare and accommodation / food service industries have seen a large number of deals and maturation in stage. In the past year, deals increased in the manufacturing sector, where few had been made previously, indicating a spillover effect on domestic industries.

SaaS spreading into manufacturing sector

QUANDO
On-site communication

Tokyo Factory
Image data management for production sites

Leaner TECHNOLOGIES
Cloud service for procurement/purchasing divisions

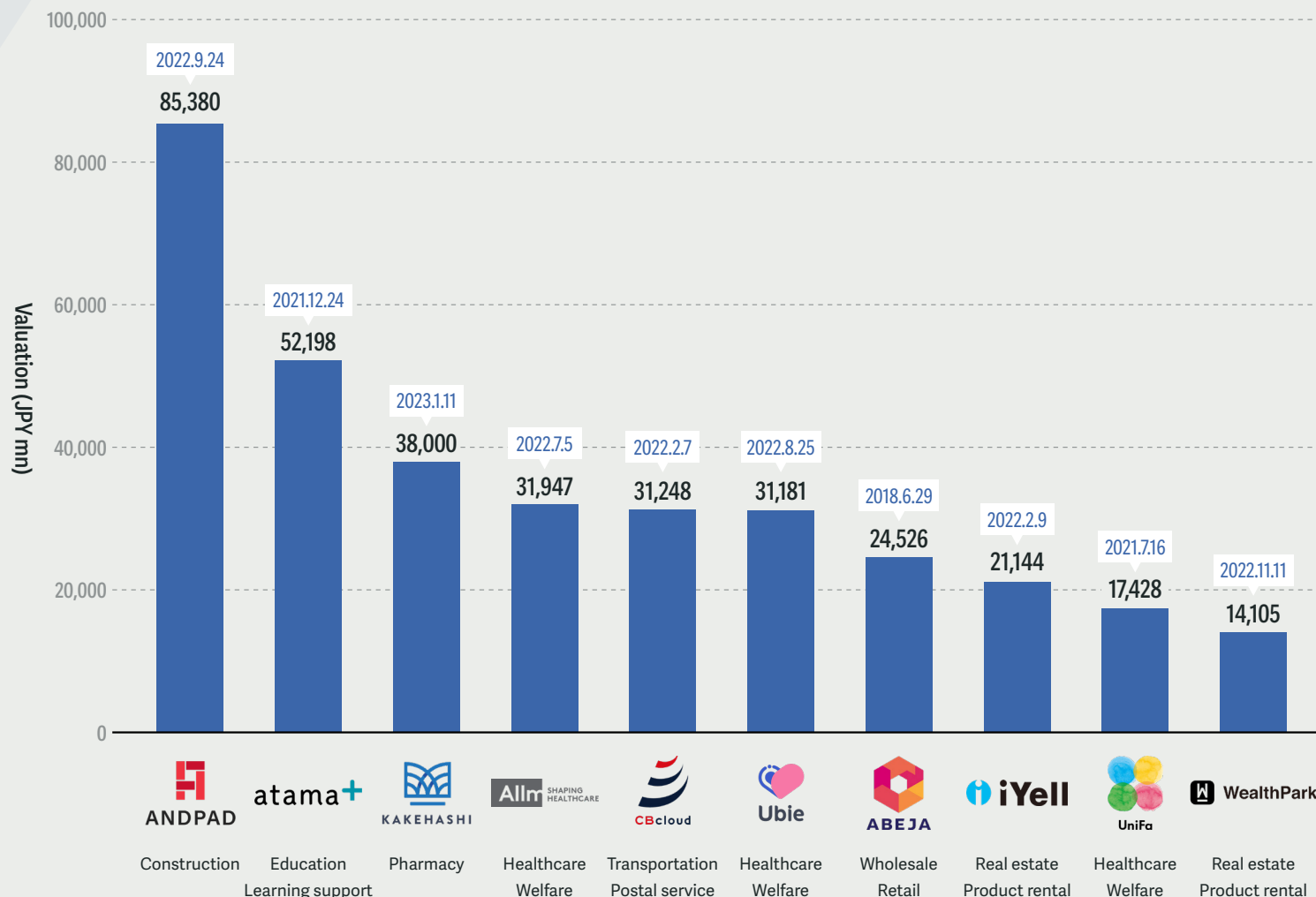
Source: Compiled by UB Ventures based on each company's data on financing in the last five years

Theme:
Vertical SaaS /
Private companies

Large-funding rounds taking place in 2022 and beyond, led by ANDPAD and KAKEHASHI

Top 10 vertical SaaS startups by valuation

* Dates in the graph as of latest financing round



Even in a slow market, decline in valuation is limited

Even since late 2021, when valuations of SaaS startups fell across the board, large-scale financing rounds have been taking place.

A notable case is ANDPAD's series-D round, in which the company raised approximately JPY 12.2billion.

In addition to expanding its service to the whole construction industry, ANDPAD is allocating funds to overseas expansion, as it maintains a cycle of high growth, favorable valuation, and aggressive investment.

On the other hand, financing has not been a simple task even for high-growth companies. "We had been counting on overseas crossover investors, but their appetite declined, forcing us to make drastic corrections from our initial financing plan," says Mr. Nakagawa, CEO of KAKEHASHI.

In 2023, as investors seem to wait and watch, companies need to prove whether they can deliver value to entire industries and achieve stable growth.

* Based on SaaS startup data compiled by UB Ventures, company valuations referring to calculations by INITIAL

Theme:
Vertical SaaS
Growth methods

Three growth strategies for vertical SaaS companies

Companies need to engage in one or more of the below strategies to expand TAM in their targeted domains.

1



Integration

Offer multiple functions and products to cover entire business processes

Case study



Starting with AirREGI, a POS register system that can be used from zero payment, the company offers 16 services that cover all aspects of store operations, including reservations and employee shift management.

2



Cross Vertical

Offer the same product in adjacent areas and/or similar industries

Case study

SpiderPlus & Co.

SPIDERPLUS, a service for managing construction drawings, is mainly offered to subcontractors such as electric and HVAC services. In recent years, it has expanded into neighboring areas including the plant construction and maintenance industries.

3



All Categories

Wide coverage from SMBs to large enterprises

Case study

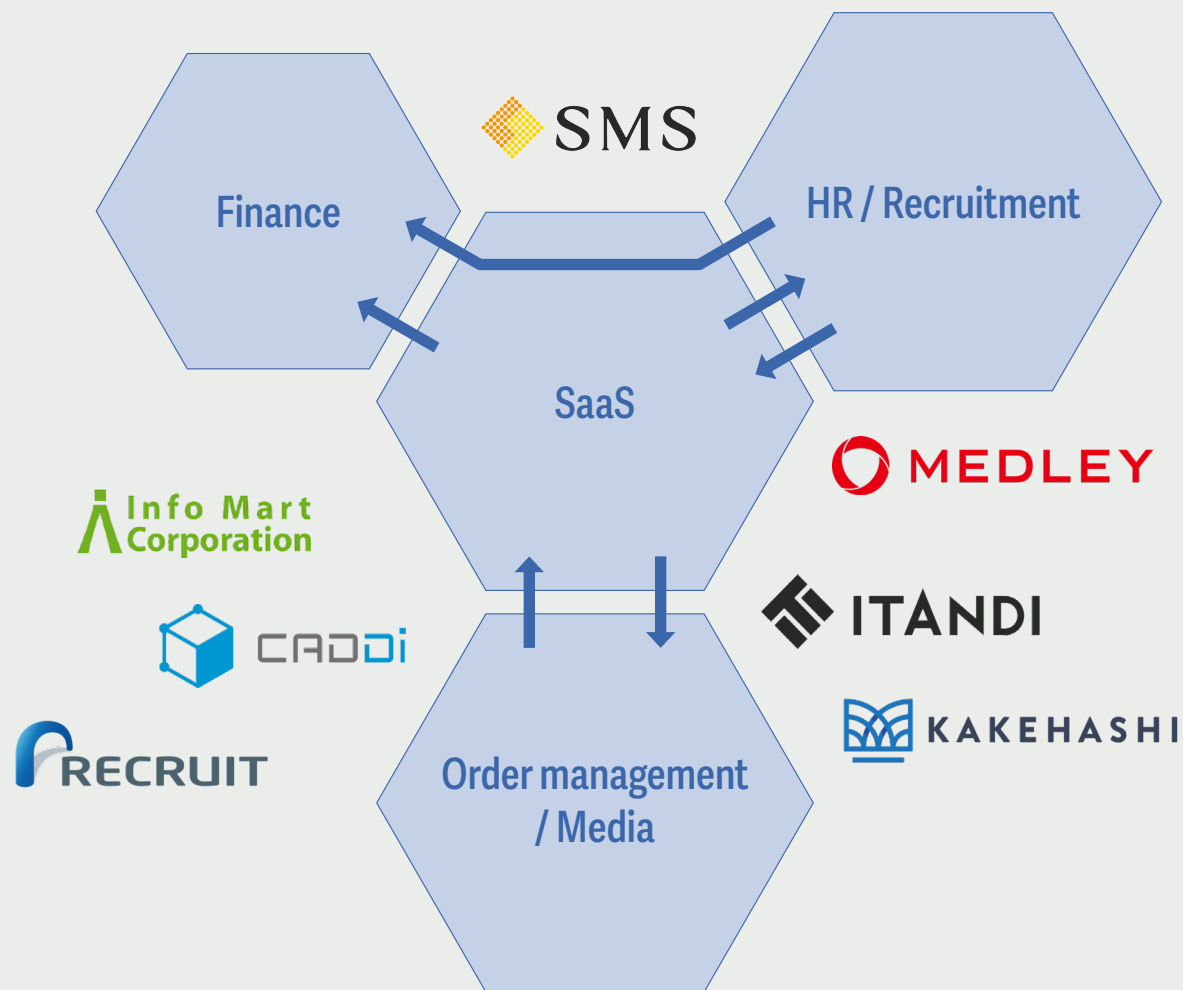


The service was launched in the prescription pharmacy market, focusing on small and mid-sized pharmacies to expand market share in the first three years. Once the product matured and cross-selling products were released, KAKEHASHI promptly shifted its focus to large pharmacy chains, which became the new growth driver.

Theme:
Vertical SaaS
Growth methods

Players penetrating neighboring segments from different entry points

Business expansion of DX players in specific industries



Companies other than pure SaaS players are accelerating launches in vertical domain

As SaaS companies expand into non-SaaS businesses as they expand their value offerings to the industry, we are beginning to see more examples of SaaS companies expanding into SaaS from other industries as well.

A notable case is SMS: after the expansion of its personnel dispatch service for nursing facilities, it launched Kaipoke, a SaaS tool for managing nursing facilities, gaining a large market share.

In addition to providing value as a one-stop shop through SaaS, SMS is also growing revenue in the finance domain through its factoring service.

In order to become the dominant player in the digital transformation of a specific industry, companies need to provide a must-have product, as well as obtain user data.

Vertical SaaS is expected to keep developing as it continues to penetrate different product domains.

SaaS meets Industrial IoT

- ▶ Transition of business model from “things” to “service” and from “spot” to “recurring”
- ▶ Necessity of data utilization through devices, equipment, and hardware
- ▶ Expanding on-site value for manufacturing, construction, and stores
- ▶ Penetration of vertical SaaS

Accelerating
integration

IoT

IoT (Internet of Things) is one of the most important concepts that we need to update our understanding of.

When the term became widely recognized in Japan back in 2015, it was understood in a BtoC context as the connection of electrical appliances such as air conditioners and refrigerators to the internet, making consumers' lives more convenient. Now, seven years later, there seems to be less talk about IoT, and it may be seen as a buzzword that has run its course.

Meanwhile, however, Industrial IoT (IIoT) is receiving trillions of yen in investments globally, notably in connected buildings.

There is a need to nurture startups in this area, with a sense of mission to solve Japan's most critical issues, such as aging infrastructure, population decline due to aging and falling birth rates, and response to environmental change.

SaaS



Chiamin Lai
Managing Partner

After graduating from International Christian University, Chiamin joined Intentia, a major ERP vendor, working on corporate digitization and operational reforms projects across Japan and Europe. She then worked for a U.S. strategy consulting firm, Monitor Group, before joining DCM Ventures as a venture capitalist, where she was in charge of investments into startups including freee. In 2014, she joined Happy Elements, a Chinese startup, becoming its Representative Director of Japan, overseeing content development and Metaverse businesses such as xR in Japan and China. Chiamin has an MBA from IE Business School.

Theme:
Why
Industrial IoT

In 2023, Industrial IoT implementation reaches to a turning point due to a combination of changing factors.

Political factors

- Response to policies including SDGs and reduction of carbon emissions
- Support to implement connected industries and Society 5.0

Social factors

- Rising age of technicians and engineers
- Shift to remote work triggered by the COVID pandemic
- Aging infrastructure causing increase in maintenance costs
- Increased complexity and advancement of supply chains

Economic factors

- Competitiveness being lost with emergence of overseas players
- Increased needs to secure revenue due to shift from selling things to selling services

Technological factors

- Advancement of telecommunications/network technology such as LPWA
- Evolving data analysis using AI and edge AI technology
- Development of devices with lower prices and higher functions, including MCUs

JPY **190bn**
CAGR 9% ↑
Public transportation system

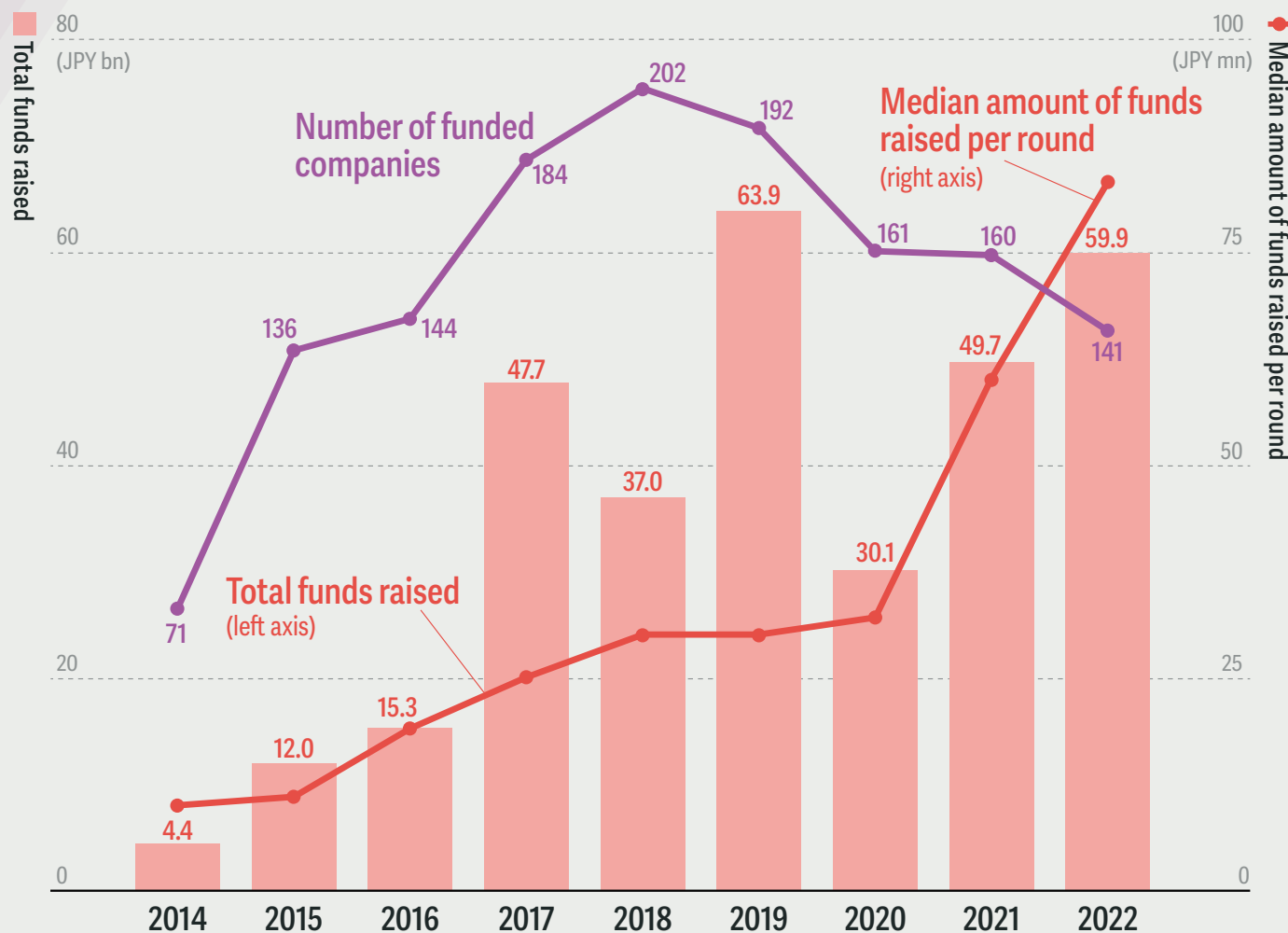
Birth of multiple fast-growing IoT markets

JPY **180bn**
CAGR 20% ↑
Smart homes

JPY **100bn**
CAGR 7% ↑
Fleet management

Theme:
IoT startup
Fundraising

Amount of funds raised by Japanese IoT startups has resumed growth



*1 Figures for each year cover the amounts observed by the reference date.

*2 Due to the nature of the data, the figures may be corrected retroactively as a result of further research. The smaller the amount, the larger the impact of advancement in research, especially regarding the number of companies raising funds.

Large-funding rounds over JPY 10 billion took place in 2022

The total amount raised for all IoT startups was JPY 60 billion, accounting for about 7% of all startups in Japan. Despite a decline in investment due to deteriorating market conditions, the amount of funding has been on a recovery trend, due in part to the growing need for IoT as a result of changes in working styles.

The amount raised per round was 1.3 times that of the previous year at about JPY 80 million, but was less than half of the JPY 260 million per round raised by SaaS startups.

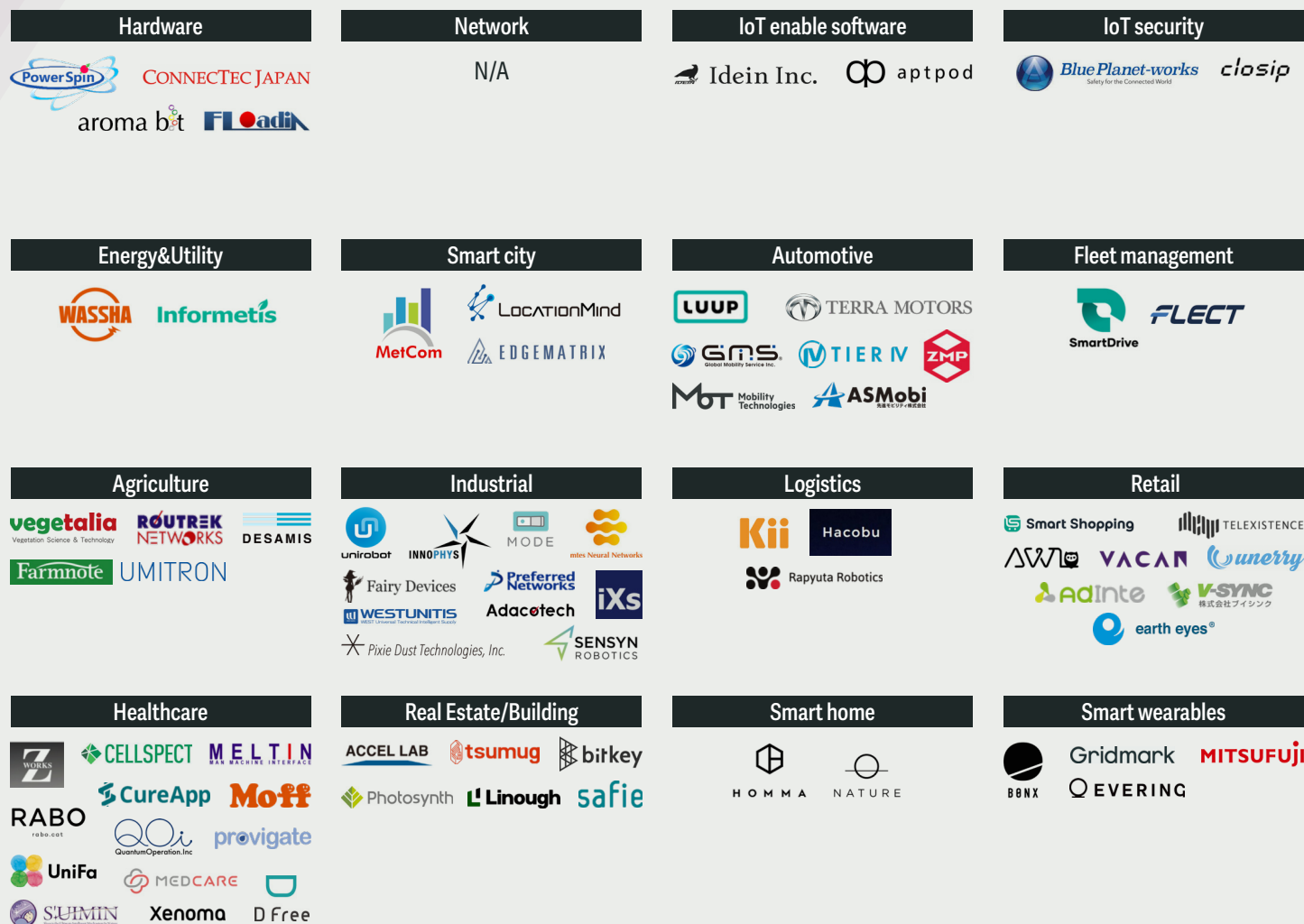
The number of funded companies has declined for four consecutive years after peaking in 2018, and funds have been concentrated in a limited number of IoT companies. Funds have been directed to capital-intensive areas such as autonomous driving systems and logistics robots, but more investment should be expected.

Top 5 IoT startups in Japan by funded amount in 2022

Company	Funds raised (JPY bn)
TIER IV	12.2
Rapyuta Robotics	6.4
CureApp	3.5
Bitkey	2.4
Global Mobility Service	2.0

Theme:
Players

Japanese IoT startup Landscape



How are Japanese IoT startups performing?

1 Industrial domain

IoT solutions are increasingly being utilized with the advancement of Industry 4.0. More companies are using IoT devices to obtain and analyse large amounts of data from production sites. For instance, companies are improving the accuracy of predictions in detecting incidents to raise efficiency in the monitoring process.

2 Healthcare domain

Many companies are using wearable devices and IoT measurement instruments to obtain physiological data for utilization in nursing support and preventive medicine.

3 Smart home domain

As collection of personal data accelerates with household devices being connected to the internet, there has been a rising awareness of the importance of security. While the number of players is still limited, an increase is expected going forward in response to the METI's announcement of policies for an IoT Security Safety Framework (IoT-SSF).

4 Logistics domain

Since efficiency and data utilization in logistics can affect the competitiveness of a business, companies are looking forward to the utilization of IoT devices to optimize picking and delivery activities. For example, Hacobu is using IoT technology to optimize delivery fleet management and monitoring of logistical materials.

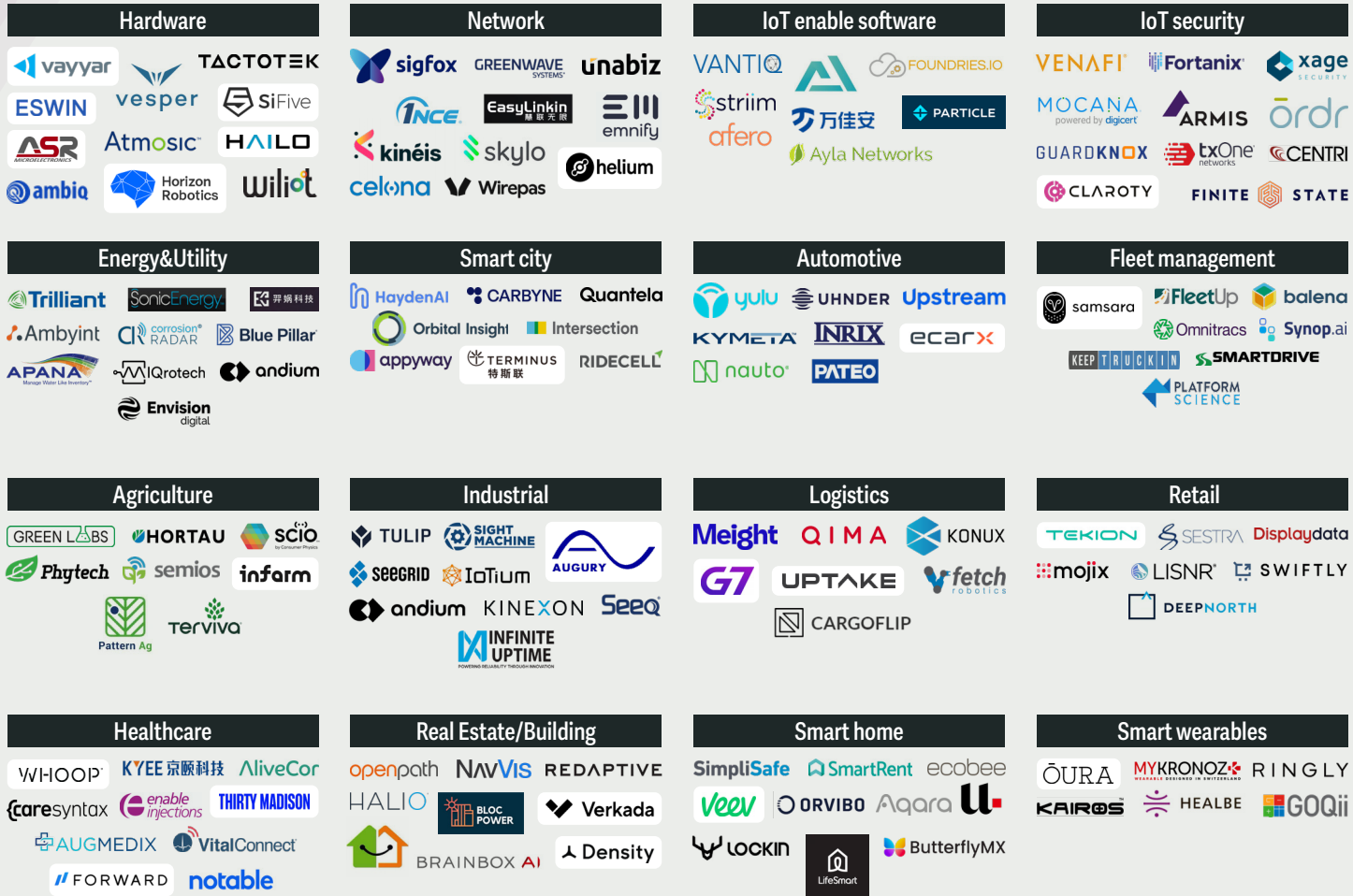
5 Hardware (MCU, chip, sensor)

Not many powerful startups exist in areas such as networks, where basic technology/research is required. One possible reason is that the number of venture funds that can support such development is limited in Japan.

Source: Compiled by UB Ventures based on INITIAL data [Scope of research] Among companies listed on INITIAL, those that meet the following criteria 1 or 2. 1: Startups that have conducted IPO since 2016, 2) Private startups with cumulative financing over JPY 1bn with the latest round taking place since 2020.

Theme:
Players

Global IoT startup Landscape



What is the background for the large number of unicorn companies among global hardware IoT startups?

1 Industrial domain

The COVID pandemic created the need for many companies to prepare remote working arrangements and remote healthcare. This led to an increase of startups developing solutions for remote access and remote monitoring in various industries.

2 Integration with AI

The accuracy of predicting abnormalities and errors in maintenance work can be improved by self-learning and analysis through AI algorithms using data collected by IoT devices. This has accelerated the application to industrial use.

3 Utilization of edge computing

Data collected by IoT devices can be processed by nearby computers instead of on the cloud. This raises the speed of data processing, leading to development allowing for cost reduction becoming mainstream.

4 Advancement of security measures and increase of players

When IoT devices manage data, it is essential to strengthen security measures to protect privacy and prevent data leaks. This is an area where further technological innovation can be expected, with startups using blockchain communication to build dispersed networks in recent years.

5 Application to smart cities

An increasing number of startups are developing solutions that harness IoT devices to control infrastructure, including urban energy, transportation, parking spaces, and lighting.

Theme:
Insight

Global IoT startups undergoing large-scale financing rounds and future outlook in Japan

Global ranking of funds raised by IoT startups in 2022

	Company/Category (Region)	Funding (USD mn)
1位	Tsinghua Unigroup Hardware (China)	1,460
2位	Enable Injections Healthcare (U.S.)	215
3位	Verkada RealEstate/Building (U.S.)	205
4位	Axonius IoT security (U.S.)	200
5位	Helium Network (U.S.)	200
6位	Envision Digital Energy&Utility (Singapore)	210
7位	SiFive Hardware (U.S.)	175
8位	Eigencomm Hardware (China)	157
9位	Orvibo Smart home (China)	157
10位	Salt Security Sensor (U.S.)	140

Activities of IoT startups have been limited in Japan. What are the Industrial IoT categories to watch from here?



Building, Real estate

The widespread adoption of remote work triggered by the COVID pandemic has significantly changed the way offices are used, creating a new opportunity to rethink how office buildings function and operate. The reorganization of office building functions, more sustainable operations, and energy efficiency of buildings are becoming more important.

The number of players offering office building access management and IoT surveillance solutions, including Photosynth and Safie in Japan, is increasing globally. The market in Japan will expand, especially in high-growth industries such as solutions for improving building energy consumption efficiency.



Facility management, Energy

The market is growing rapidly due to global environmental issues and the need to manage energy consumption. We are now seeing products that contribute to reducing environmental impact, such as systems that automatically control temperatures in halls and factories, optimize water usage in facilities, and utilize sensors that monitor inventory levels in oil tanks.

There are also considerable needs in the areas of energy use optimization and predictive maintenance, which can give rise to Japan's unique solutions inspired by overseas cases.



IoT security

The integration of industrial equipment and IT networks, the increasing amount of software embedded in processors, and the transfer of data from previously isolated devices pose IoT-related vulnerability risks to enterprises.

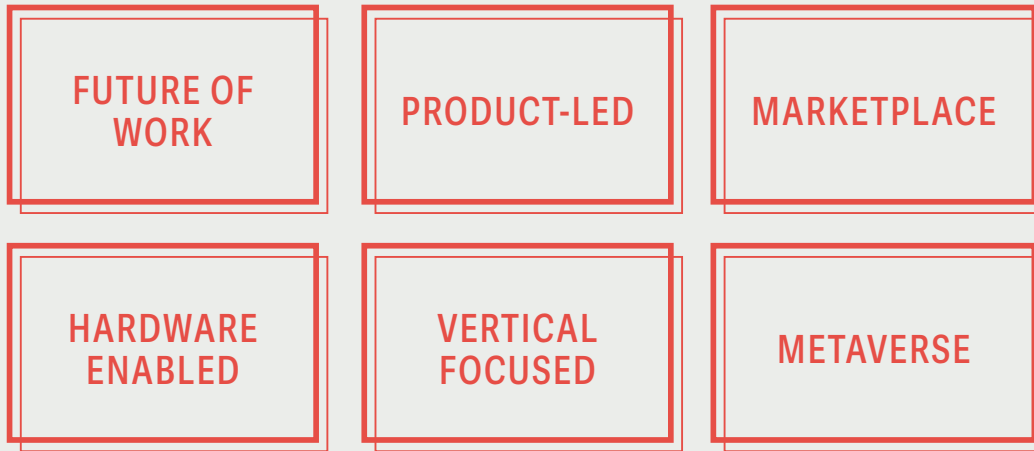
A growing momentum is seen in the global market, including M&As in the scale of over JPY 100 billion, and the Taiwanese startup TXOne Networks raising more than JPY 8 billion in their Series-B round. The number of startups in this area has been small in Japan, but since security accompanying the increased use of IoT is an essential issue in the manufacturing industry, there is room for business and product development from the perspective of vulnerability assessment.

An Enduring Vision: A VC for Entrepreneurs, by Entrepreneurs

UB Ventures is a team of venture capitalists with hands-on experience, supporting the growth of entrepreneurs and businesses pioneering new industries worldwide. We strive to empower startups from Asia to expand their horizons and achieve lasting success on a global scale.

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SAIL BEYOND



SaaS expanding into new industries
Investing in new industries with SaaS-driven business models



Company	UB Ventures, Inc.
Business	Venture Capital
Themes	SaaS, Media, Metaverse, AIoT
No. of portfolio companies	28 (as of February 2023)
Investment regions	Japan & Asia
Address	1F GUILD Dogenzaka, Futaba Building 1-16-6 Dogenzaka, Shibuya-ku, Tokyo, JAPAN
Date of establishment	February 16, 2018



Harnessing real business experience to support the growth of startups from Asia and beyond

Venture capitalist team

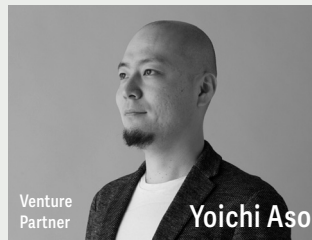


SPEEDA

Former Executive Officer /
Head of Asia Business



Former Representative Director (Japan)
and Board Member /
Head of Metaverse Division



AlphaDrive

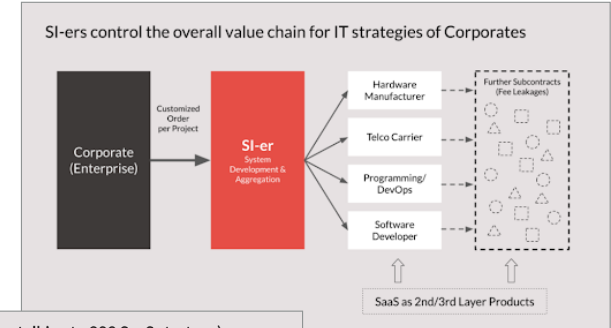
Founder/CEO

NEWS PICKS

Executive Officer

Assisting the growth process of entrepreneurs and businesses

Contents & Playbook



3 Don'ts when building SaaS (after talking to 200 SaaS startups)

- 1 Tracking KPI in all directions at once
- 2 Setting a weak pricing strategy with low ARPU and complicated plans
- 3 Generating product value based on uncontrollable risks

Distribution of contents created by the venture capitalists, covering industry analysis and sector trends

Sharing know-how and insights needed in product launches and growth strategies

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Community

Operation of Thinka, an exclusive community for next-generation founders to come together, share their startup stories, and learn from each other's experiences



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SaaS Annual Report 2022

The Key to Industry Transformation

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