

2023 REPORT

Personalization tech trends in Japan

AgeTech Edition

By: Aya Spencer

Investor, Kapor Capital

Who is this report for?

- **Venture Capital & Private Equity Investors**

Investors eager to explore Japan's past & present innovation landscape

- **Founders**

Founders seeking inspiration for personalization technology within agotech industries.

About Me



- **Who I am:** I am an investor at Kapor Capital. I am of both American and Japanese descent, having resided in Japan for over 15 years.
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- **Why I made this report:** I wanted to shed light on Japan's remarkable yet often underestimated dedication to innovation, focusing on the agetech sector. My objective is to inspire American investors and startups by showcasing Japan's innovative endeavors in this specific domain.

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Section 1

Japan's "omotenashi" culture

Solutions leveraging customization
and personalization

What is Omotenashi?

- **Omotenashi** is an important part of Japanese culture that is invaluable in the realm of business and social interaction.
- While it may be referred to as 'Japanese hospitality,' a more fitting translation is 'selflessness, and customer satisfaction.'
- This idea promotes consideration for the needs of others in every social transaction and can be applied in all aspects of life.

Source & Photo Credit: [Rakuten](#)



What is customization?

Customization

Controlled by user

Relies on user choice

Requires conscious input

Involves effort from user

"Customization of products means a customer can select features like color, design, functionalities, add-on components or other options to make a more unique item rather than a mass produced one. For example, a shoe company can allow customers to design and order a one-of-a-kind sneakers through their online platform."

[Source](#)

Source: [Aquire.io](#)

Ito-Ya (since 1904)

Stationary

- Itoya is one of Japan's largest and oldest paper stores.
- Known for its unique and hard-to-find items, Itoya offers an authentic array of Japanese products, including washi paper, calligraphy brushes, and origami supplies, along with a curated selection of the world's finest stationery goods and souvenirs.
- Visitors can explore a vast assortment of writing instruments, paper products in various sizes, shapes, and colors, and indulge in hands-on experiences with diverse paper products, pens, inks, and traditional Japanese paper crafts. It houses over 1000 imported greeting cards from around the globe, featuring handmade and hand-painted designs by artists.

Source & Photo Credit: [Ito-ya](#)

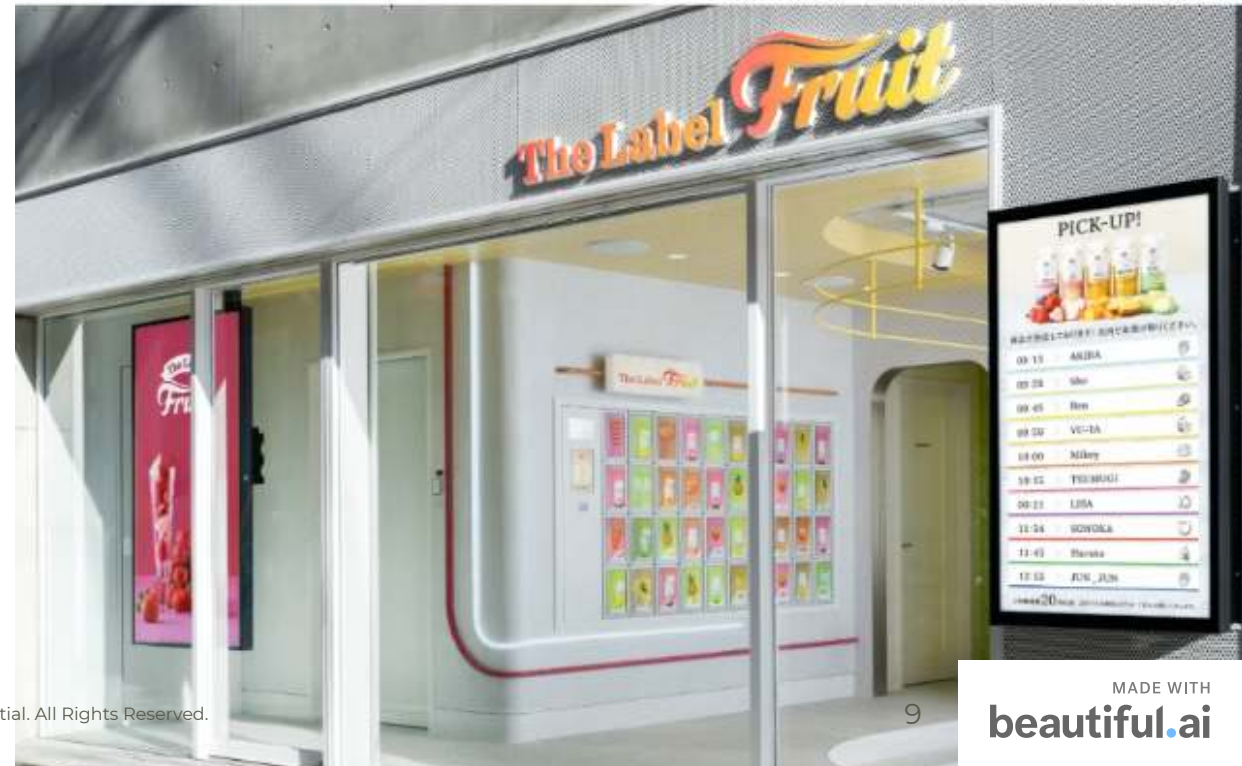


The Label Fruit (2021)

Food & Beverage

- The Label Fruit has quickly become a symbol of the growing trend towards customized and healthy eating options.
- Customizing the order is simple - you can select your drink taste, type of milk, sugar level, topping, label name, label hue, and label design.
- The company utilizes an innovative locker collection system, reducing the need for direct interaction between staff and customers.

Source & Photo Credit: [Label Fruit](#)



What is Personalization?

Customization

Controlled by user

Relies on user choice

Requires conscious input

Involves effort from user

Personalization

Controlled by company

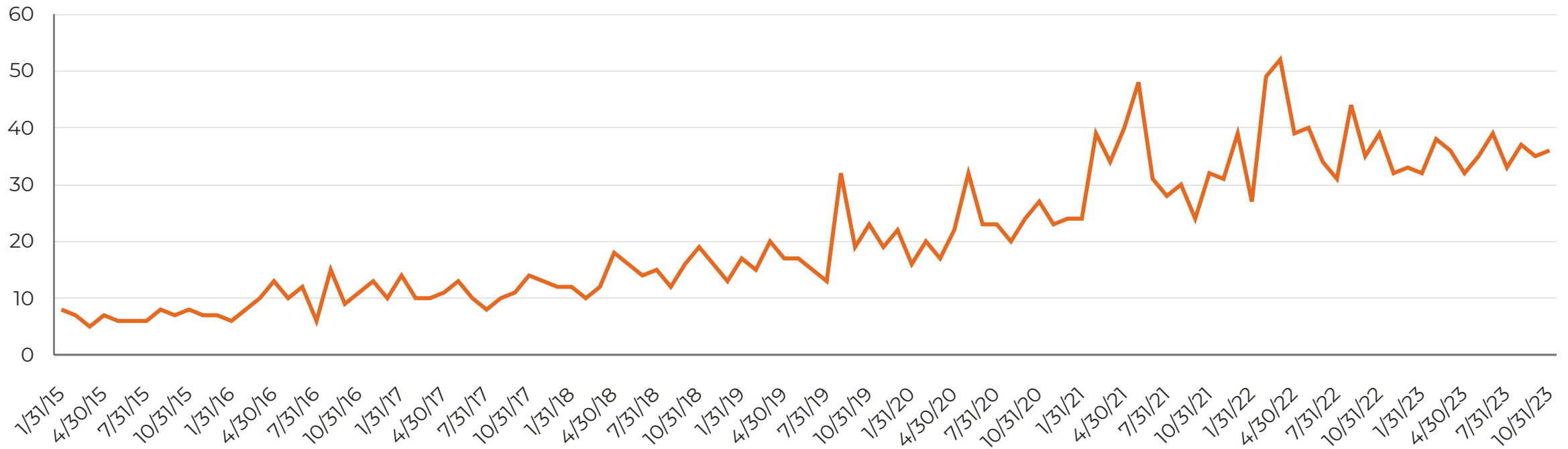
Relies on data

Requires no conscious effort

Involves no effort from user

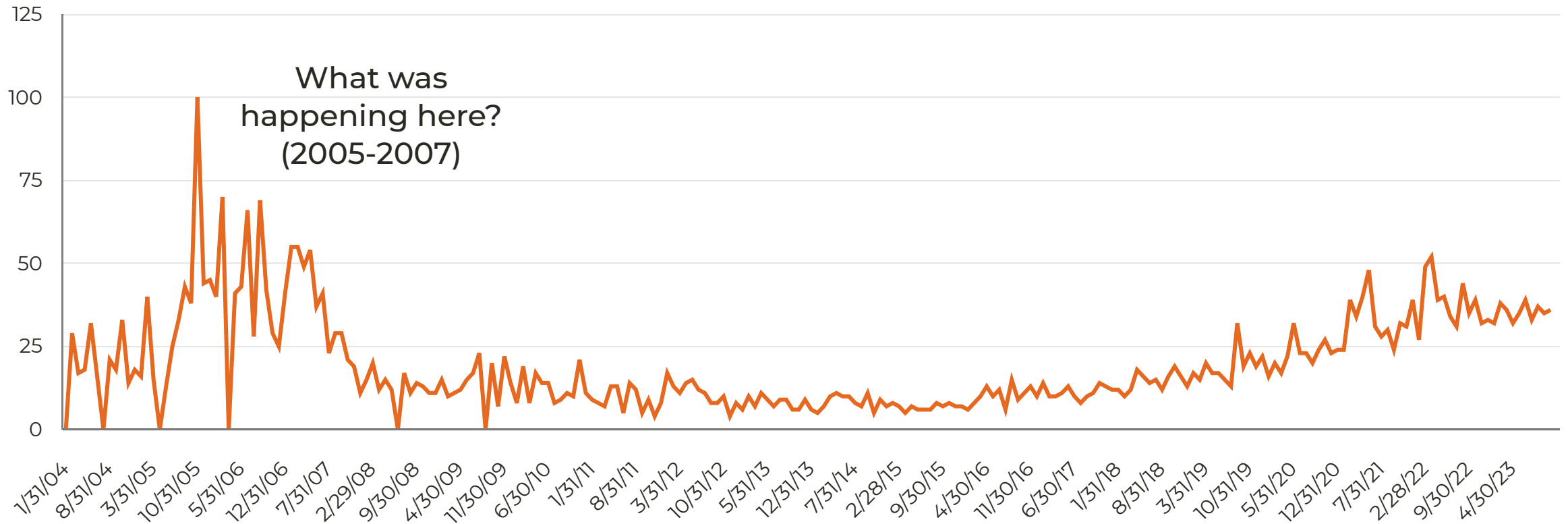
Source: [Aquire.io](https://www.aquire.io)

The term “パーソナライズ” (personalize) has been gradually trending in Japan.



Google Trends Search "パーソナライズ"; Geography: Japan; Queried on Nov 27, 2023

But this trend is not new.



Google Trends Search "パーソナライズ"; Geography: Japan; Queried on Nov 27, 2023



DNA Data Bank of Japan accumulates 100 billion bases of genetic code (2005)

- The DNA Data Bank of Japan (DDBJ), situated at the National Institute of Genetics in Shizuoka, Japan, is a pivotal biological database specializing in the collection of DNA sequences.
- Established in 1987, it stands as Asia's sole nucleotide sequence data bank. As part of the International Nucleotide Sequence Database Collaboration (INSDC), DDBJ consistently shares its data with two other major databanks - the European Molecular Biology Laboratory at the European Bioinformatics Institute and GenBank at the National Center for Biotechnology Information, ensuring synchronized data across all platforms.
- In **2005**, DDBJ, along with its INSDC partners, achieved a significant milestone by accumulating 100 gigabases in their public collections. This vast repository, amounting to 100 billion bases of genetic code, encompasses genes and partial to complete genomes from over 165,000 organisms, ranging from humans to bacteria.
- This accumulation of data enables scientists globally to access and compare genetic information freely, fostering collaborative research and advancements in health and disease treatment.

Fujimi (2018)

Health & Beauty

- Utilizing a personalized analysis, FUJIMI combines a deep understanding of individual skin types, concerns, and seasonal changes to deliver the most effective lotion and emulsion for you.
- The essence of this approach lies in its ability to adapt your skincare routine to the specificities of spring, summer, autumn, and winter, ensuring your skin remains resilient and supple year-round.
- The FUJIMI MIRROR guides this personalization process, delving into your lifestyle, daily skincare habits, and specific skin issues. With a foundation built on the experiences of approximately 4.6 million users, FUJIMI crafts a journey towards 'personal beauty' that's as unique as the individual's skin it nurtures.

Source & Photo Credit: [FUJIMI](#)



Your Meal (2022)

Food & Beverage

- YOUR MEAL is a specialized meal service that crafts personalized menus for each client, considering a range of elements including demographic details, lifestyle choices, bowel health, behavioral tendencies, essential biomarkers, personality characteristics, and specific aspirations.
- This holistic method ensures that each meal is not only personalized to align with individual nutrition and fitness targets but is also effortlessly delivered to your doorstep. This service strikes an ideal harmony between maintaining health and savoring delicious food.

Source & Photo Credit: [YourMeal](#)



Makura Co., Ltd.

(since 2004)

"Personalize Pillow" (2022)

Home goods

- Makura Co., Ltd., offers a unique product, the "Personalized Pillow," which can be customized through a simple online questionnaire.
- This pillow, boasting around 100,000 combination possibilities, recently received the "JBA Healthcare Certified Bedding (TM)" certification.
- The "Personalized Pillow" features two key aspects essential for a suitable pillow: body pressure dispersion and ease of side sleeping, along with maintenance functionality. This innovation in bedding allows for a tailored sleep experience by automatically determining the material type and amount for each of its seven pockets based on user responses, ensuring a pillow that is not only comfortable but also contributes to health and preventive nursing care.

Source & Photo Credit: 診断ピロー

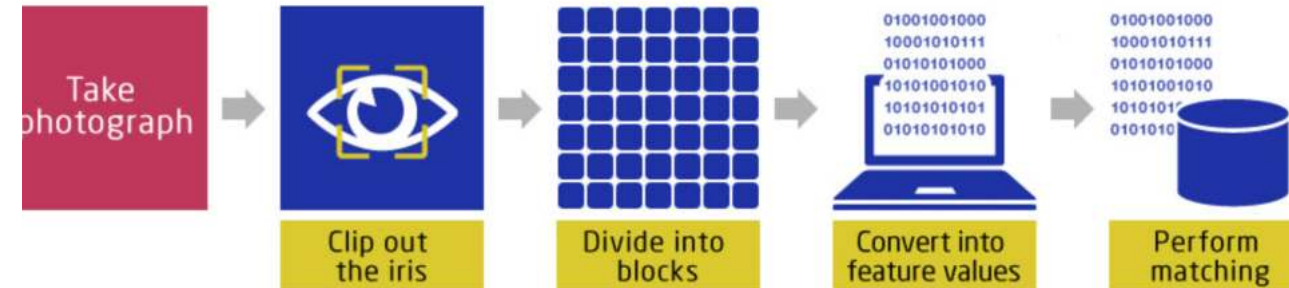


NEC (since 1899)

Bio-IDiom (2019)

Security

- NEC, a global leader in the field of data security since the 1970s, developed a range of biometric technologies, including fingerprint, palmprint, face, iris, voice recognition, and unique ear acoustic authentication.
- These technologies are recognized worldwide for their accuracy and are marketed under the "Bio-IDiom" brand.
- NEC's biometric solutions are tailored to meet customer needs and are used in various applications to enable safe and secure digital content access.



Source & Photo Credit: [NEC](#)

Section 2

Current innovation landscape & push for digitization



Message

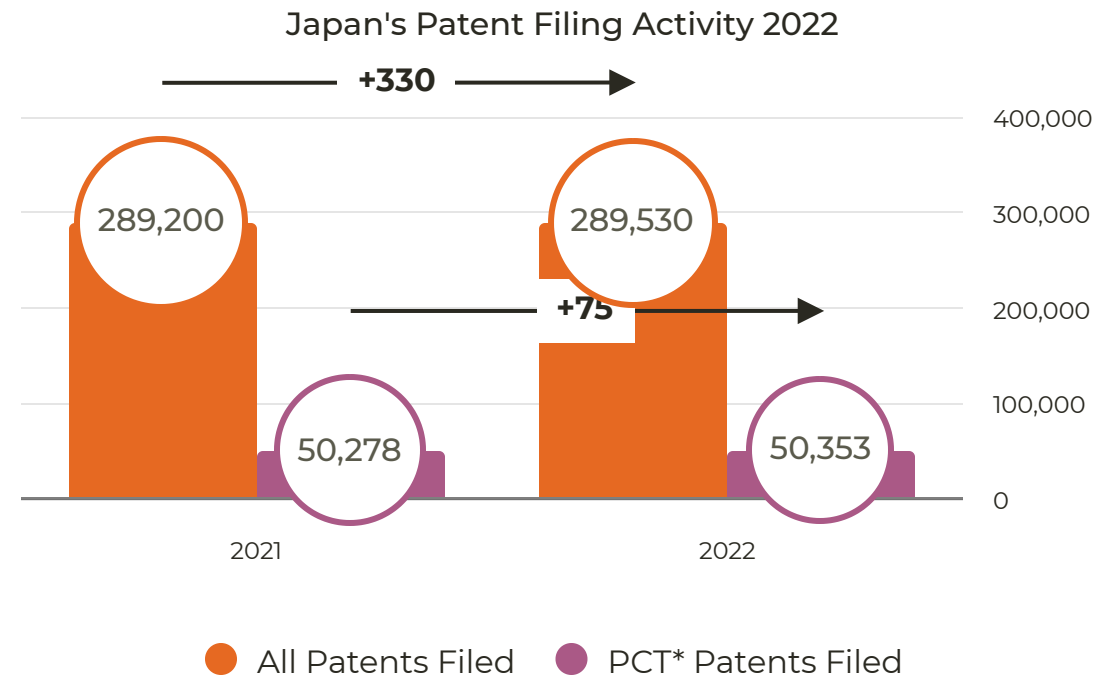
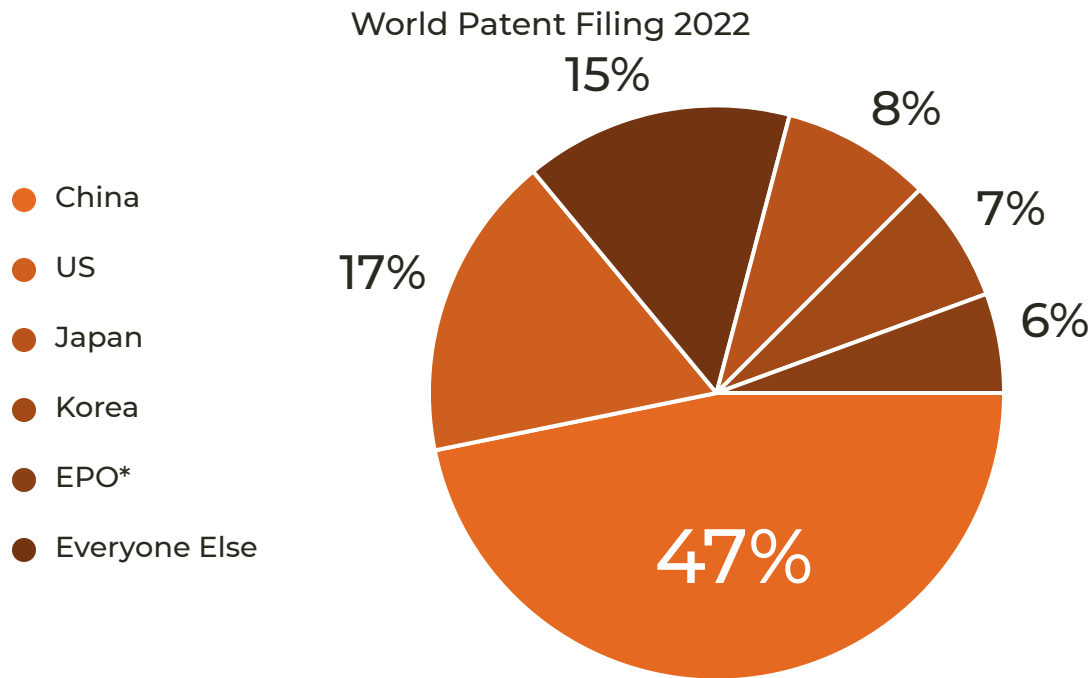
Inupathy is a communication device to give you the opportunity to communicate with your dog.

Inupathy tells you messages from your dog displayed in 5 colors. Inupathy is the first device in the world which is equipped with technology to visualize your dog's status from his/her heart rate information. This product will give you new awareness about daily small messages from your dog such as joy and stress as well as deepen mutual understanding and love. When you go out for a walk, watch TV or take a nap together, let's take your time to read messages from your dog and find many moments when 'happy' signs shine on Inupathy.

Japan is often seen as one of the most pioneering nations in the world, known for its quirky technology.

PHOTO CREDIT: [INUPATHY](#)

In many ways this is true: Japan was a country with the 3rd highest patent filing in 2022.



EPO = European Patent Office; PCT = International Patent Applications

Source: [WIPO](#)

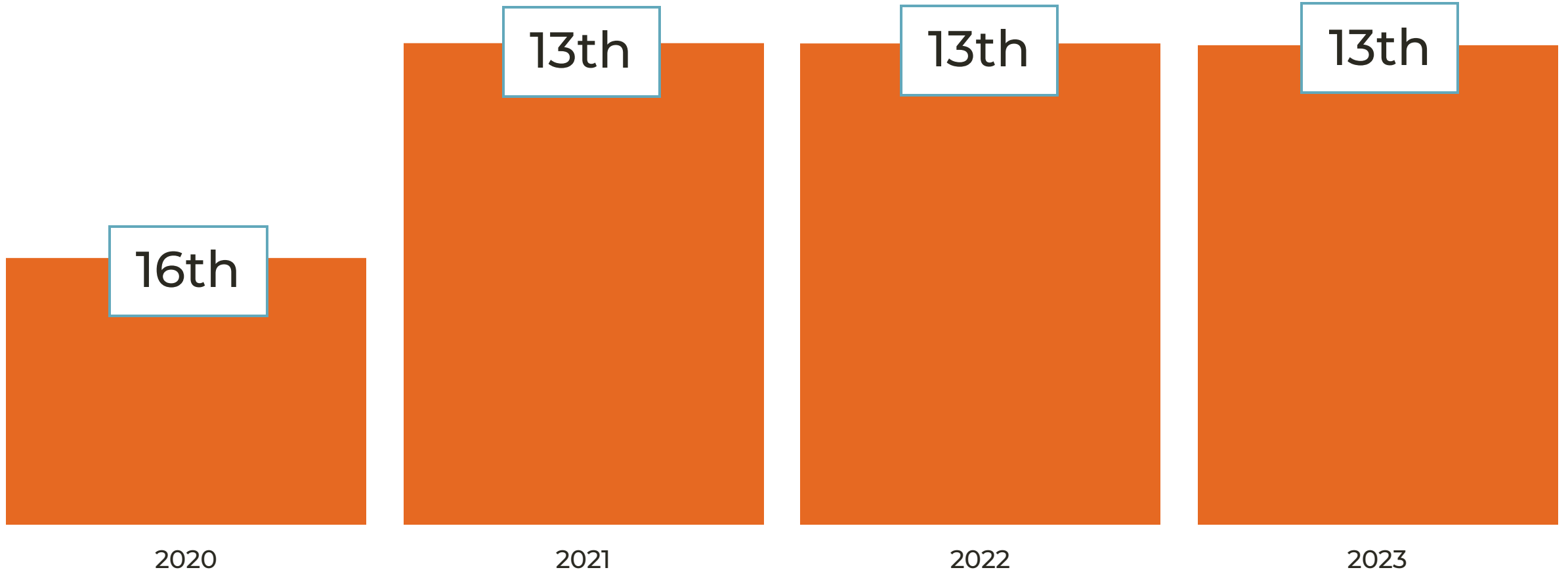
Japan's homogeneous society can also inspire unique, hyper-personalized solutions to hit the market.



1000 shades of blue



However, Japan's Global Innovation Ranking has been staggering...



Source: [WIPO--Global Innovation Ranking 2023](#)

2023 Global Innovation Ranking (Top 15)

Country/economy	Overall GII	Institutions	Human capital and research	Infrastructure	Market sophistication	Business sophistication	Knowledge and technology outputs	Creative outputs
Switzerland	1	2	6	4	7	5	1	1
Sweden	2	18	3	2	10	1	3	8
United States	3	16	12	25	1	2	2	12
United Kingdom	4	24	8	6	3	13	7	2
Singapore	5	1	2	8	6	3	10	18
Finland	6	3	5	1	12	4	4	16
Netherlands (Kingdom of the)	7	6	13	14	15	8	8	9
Germany	8	22	4	23	14	16	9	7
Denmark	9	5	9	3	21	12	12	10
Republic of Korea	10	32	1	11	23	9	11	5
France	11	27	17	22	9	17	16	6
China	12	43	22	27	13	20	6	14
Japan	13	21	18	13	8	11	13	25
Israel	14	40	20	36	11	6	5	33
Canada	15	14	10	30	4	18	19	22

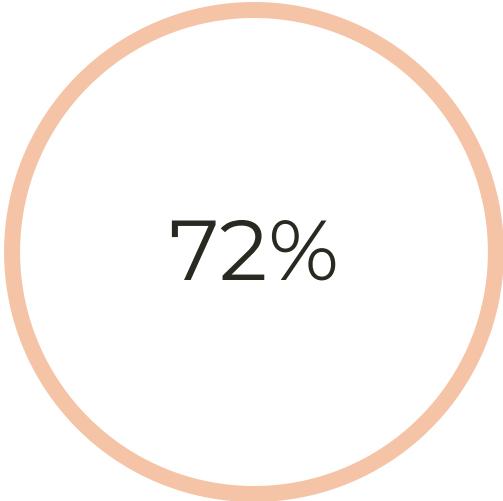
Notice that while the market is sophisticated, the creative output lags.

Source & Photo Credit: [WIPO- Global Innovation Ranking 2023](#)

Why is Japan's global innovation ranking staggering?

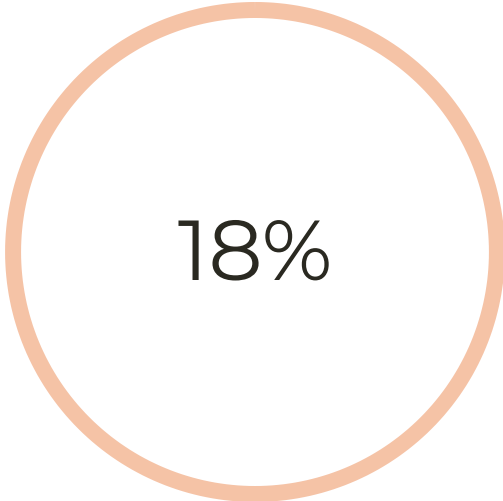
...because of **Digitization**.

While personalization is desired, digitization is not.



72%

Percentage of Japanese customers who will quit a brand if their experience is not personalized.



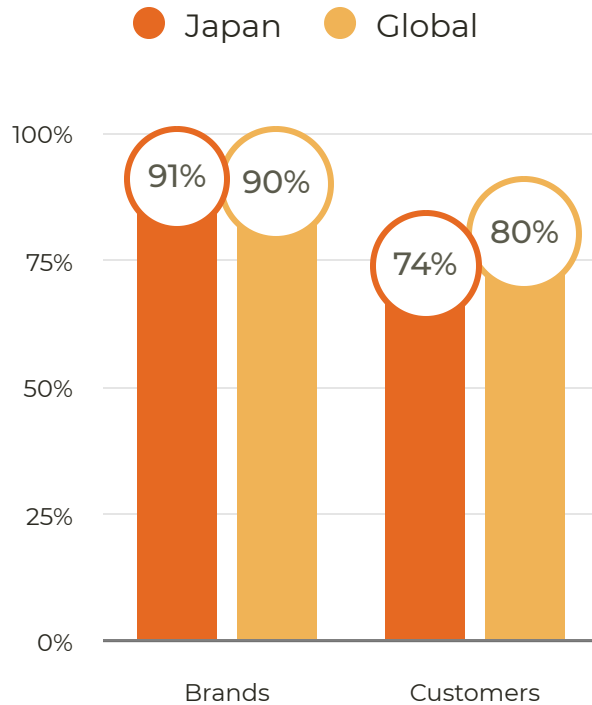
18%

Percentage of Japanese consumers who will not share any data with brands in order to get a more personalized experience, versus a global average of 6%.

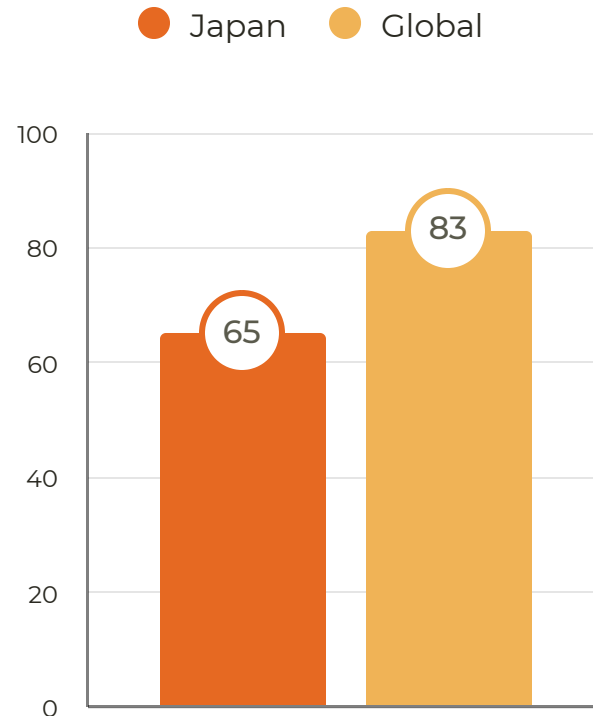
source: [Twilio.com](https://www.twilio.com) 2023

Skepticism of digitization stifles progress.

Trust in a brand's ability to protect customer data



Trust in a brand when customer account is authenticated & verified



91% of Japanese brands says customers have a high level of trust that they'll protect their data. **74%** of Japanese consumers say they do.

65% of Japanese consumers report that they trust brands more when their account identity is verified and authenticated.

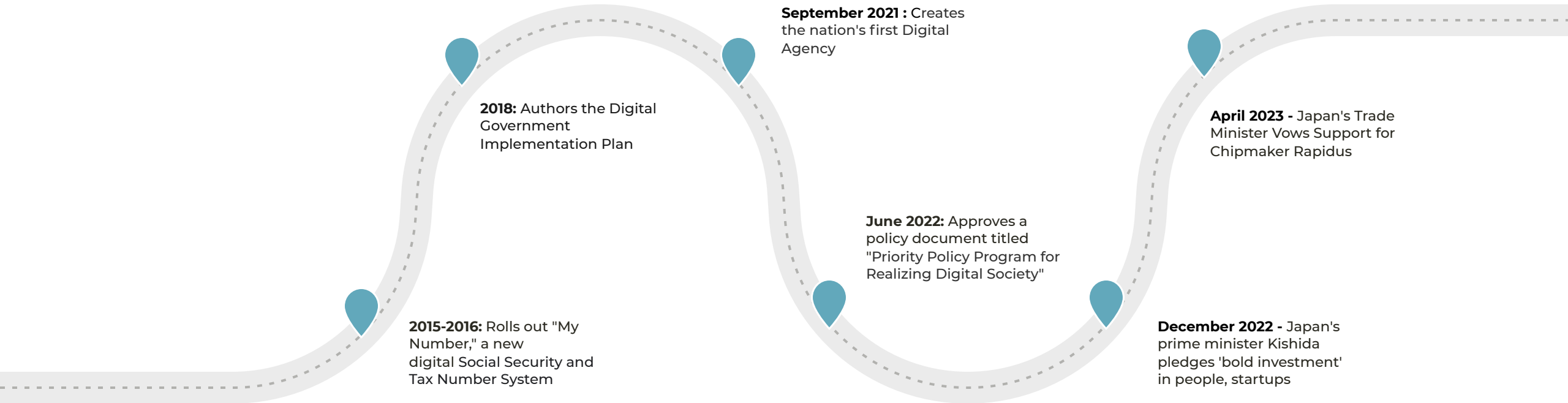
source: [Twilio.com](https://www.twilio.com) 2023

Why is digital transformation important for Japan?

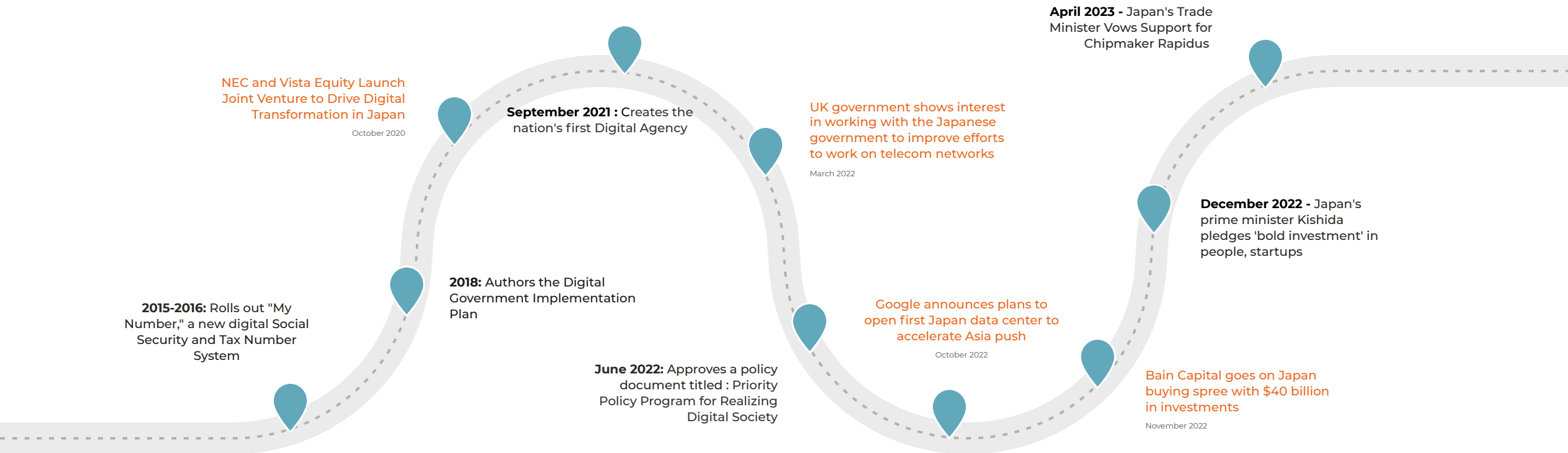


- **Revitalizing the Economy:** Digital transformation is key for Japan to overcome economic stagnation, stimulate growth in various sectors, and maintain global competitiveness.
- **Aging Population Management:** Innovative digital solutions are crucial to address the challenges of Japan's aging society, improving healthcare, elder care, and enhancing accessibility and efficiency of social services.
- **Workplace Efficiency and Culture:** Digitalization offers opportunities to revolutionize traditional work practices, promoting productivity, flexibility, and a better work-life balance.
- **Environmental Sustainability:** Leveraging digital innovation is essential for Japan to achieve its environmental goals, particularly in energy management and the development of green technologies.
- **Enhanced Disaster Preparedness:** Given Japan's vulnerability to natural disasters, digital transformation is vital in enhancing disaster management and recovery, utilizing advanced predictive technologies and resilient communication systems.

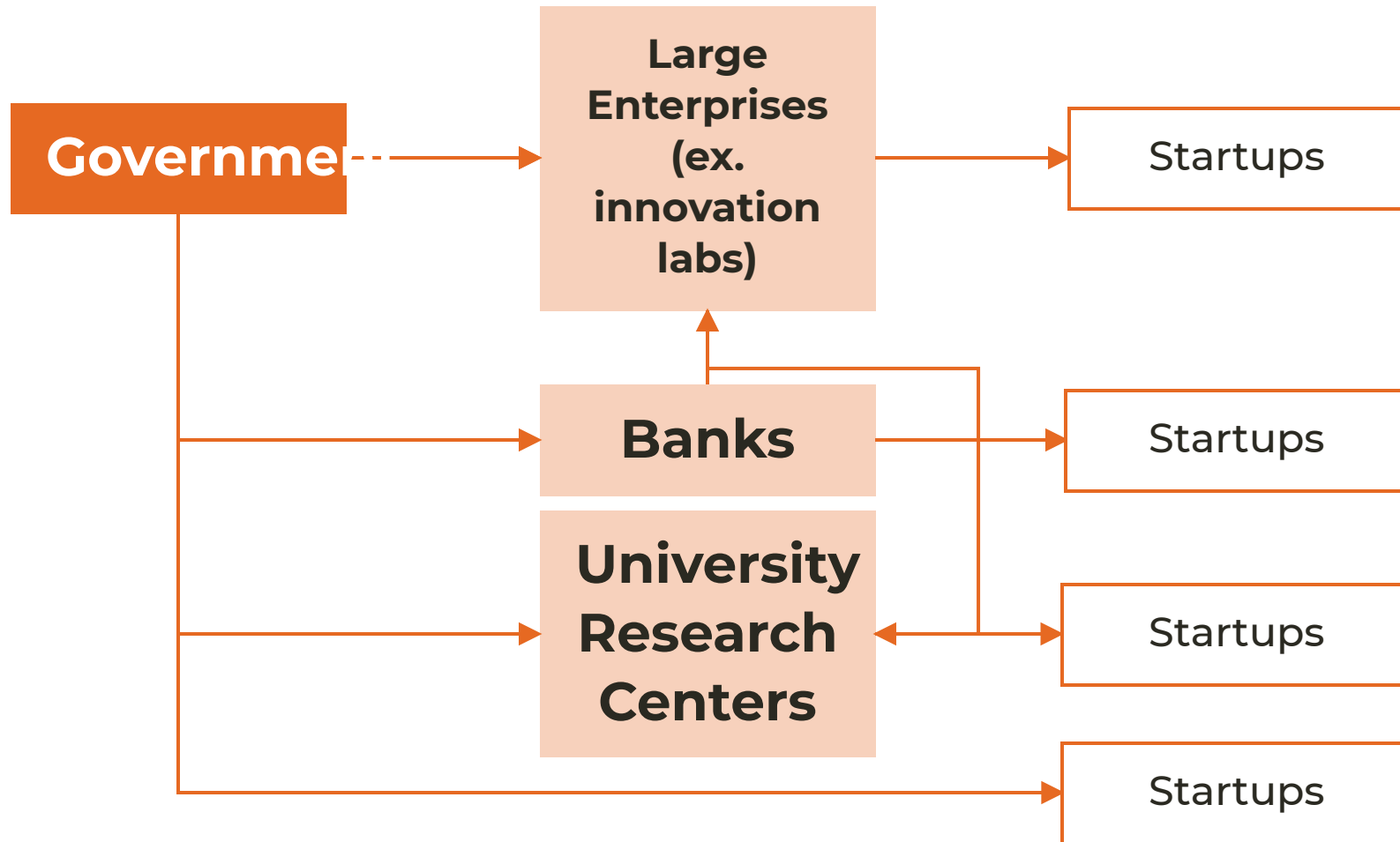
Government of Japan is taking initiatives to promote digital transformation in the country,



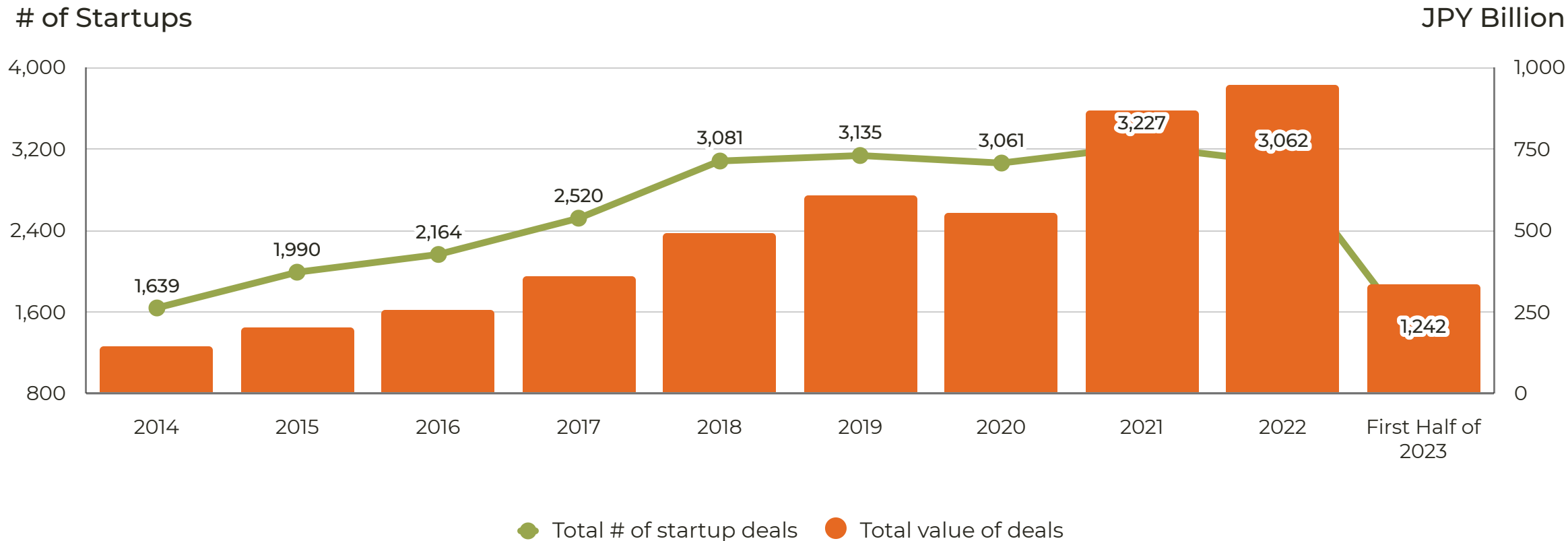
leading to investor confidence in the future of Japan.



Japan's startup funding ecosystem has strong government support.



The number of startup deals in Japan has risen steadily, with 2023 being the first predicted year of decline.



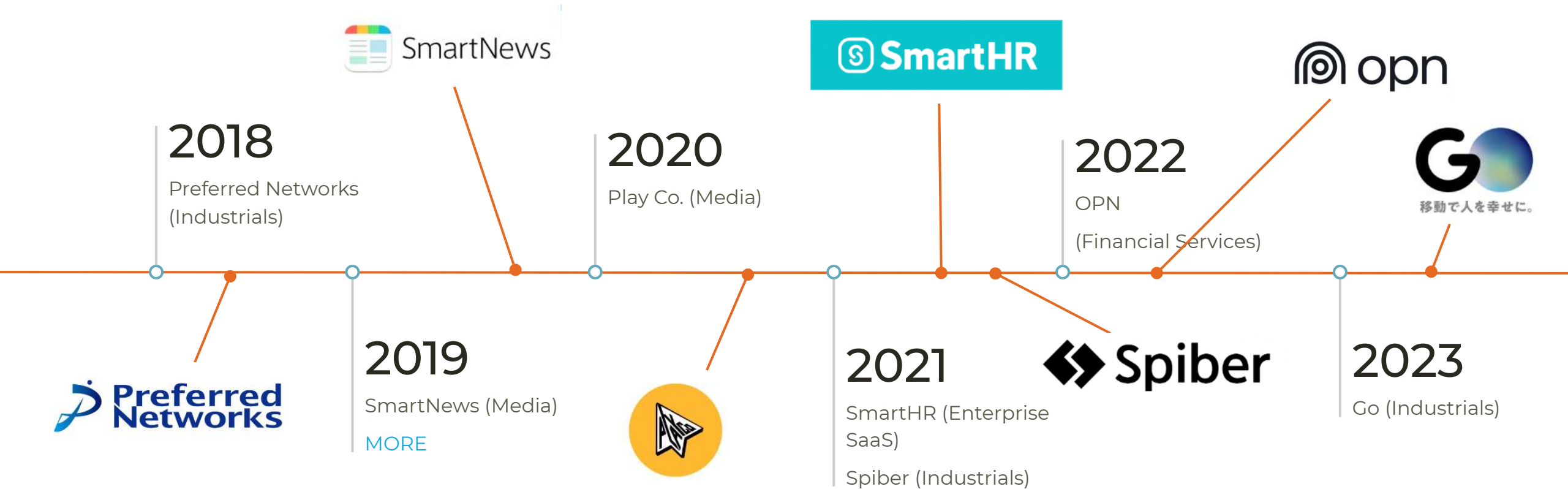
Source: [INITIAL 2023 Report](#)

While Japan still has very few unicorns compared to the rest of the world,



Source: [CB Insights](#); Queried on October 3, 2023

all 7 of them reached unicorn status within the last 6 years.

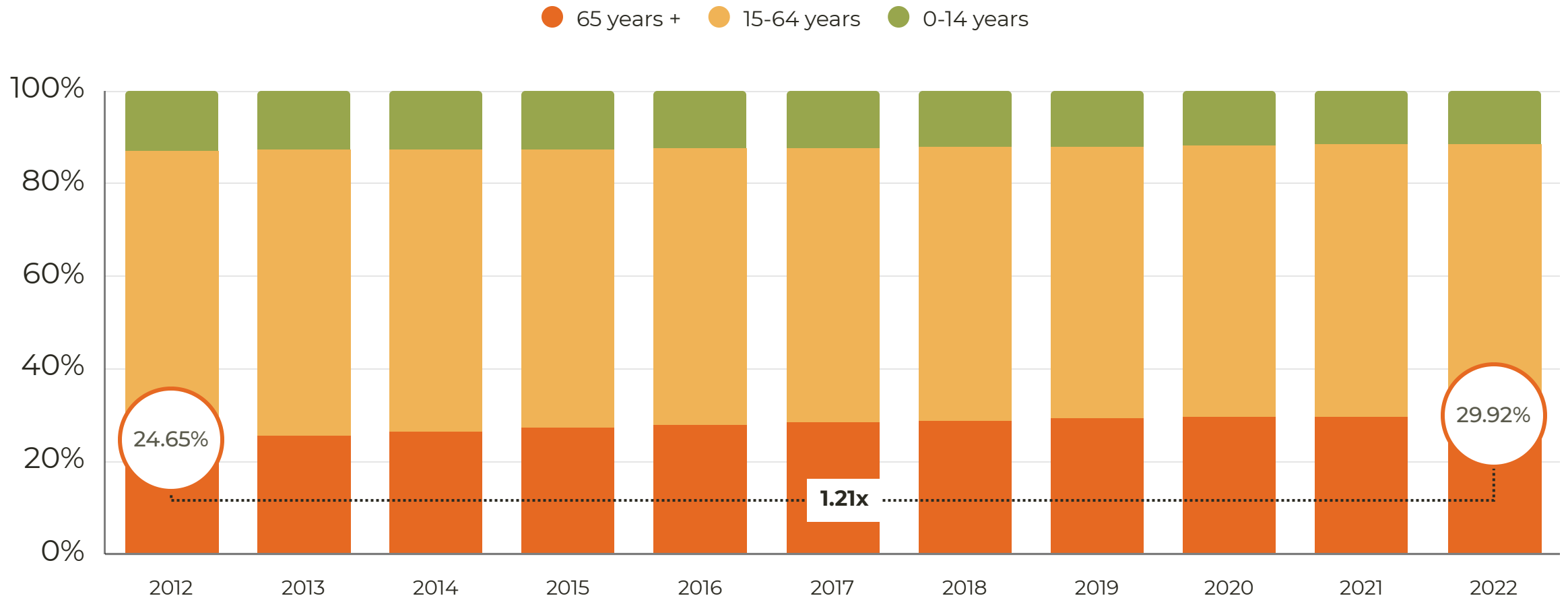


Source: [CB Insights](#); Queried on December 3, 2023

Section 3

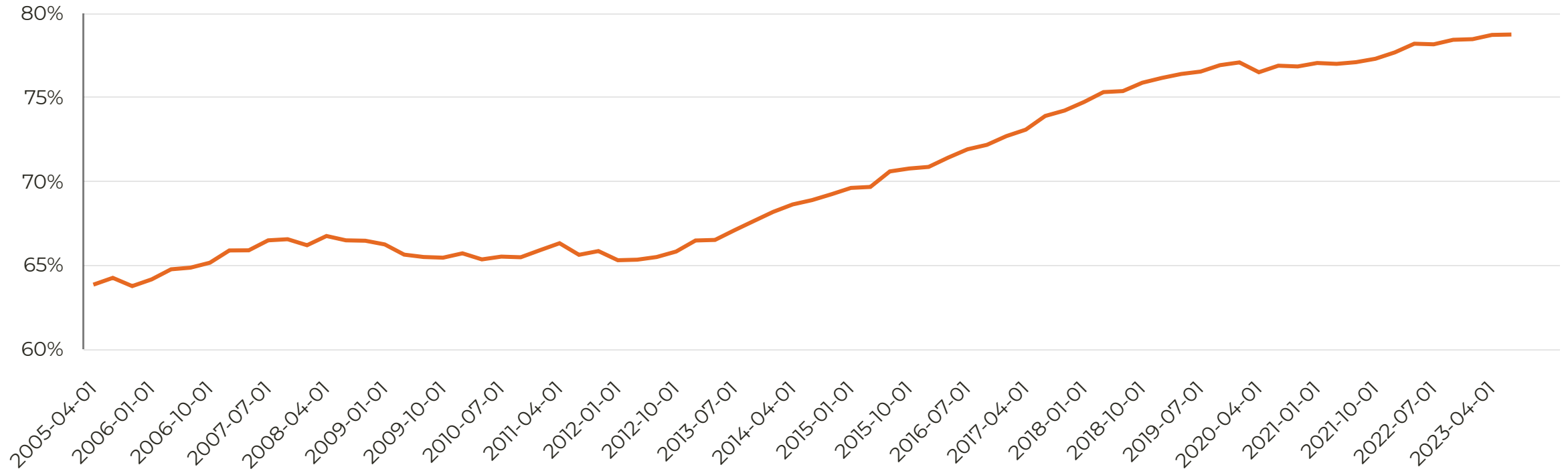
Sector Spotlight: Agetech

Japan is an aging country.



Source: [Statista 2023](#)

Labor force is getting older too.

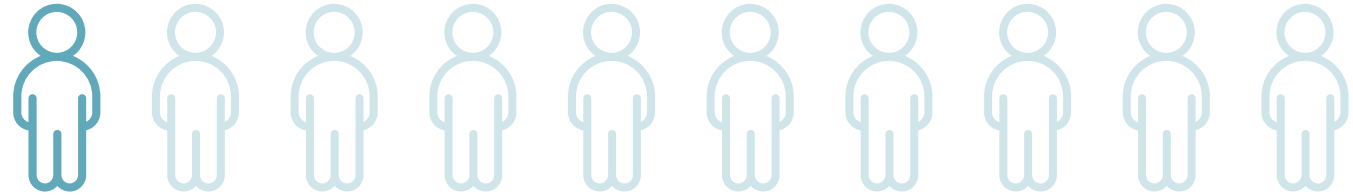


Employment Rate: Aged 55-64: All Persons for Japan (2005 - 2023)

Source: Organization for Economic Co-operation and Development, Employment Rate: Aged 55-64: All Persons for Japan [LREM55TTJPQ156S], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://ip-10-121-51-68.ec2.internal/series/LREM55TTJPQ156S>, December 2, 2023.

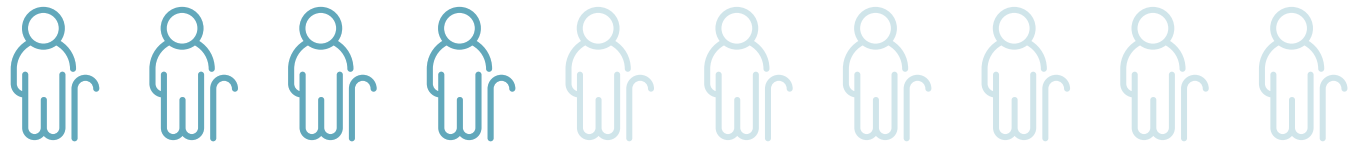
Much older.

10%



Percentage of all Japanese who are over the age of 80

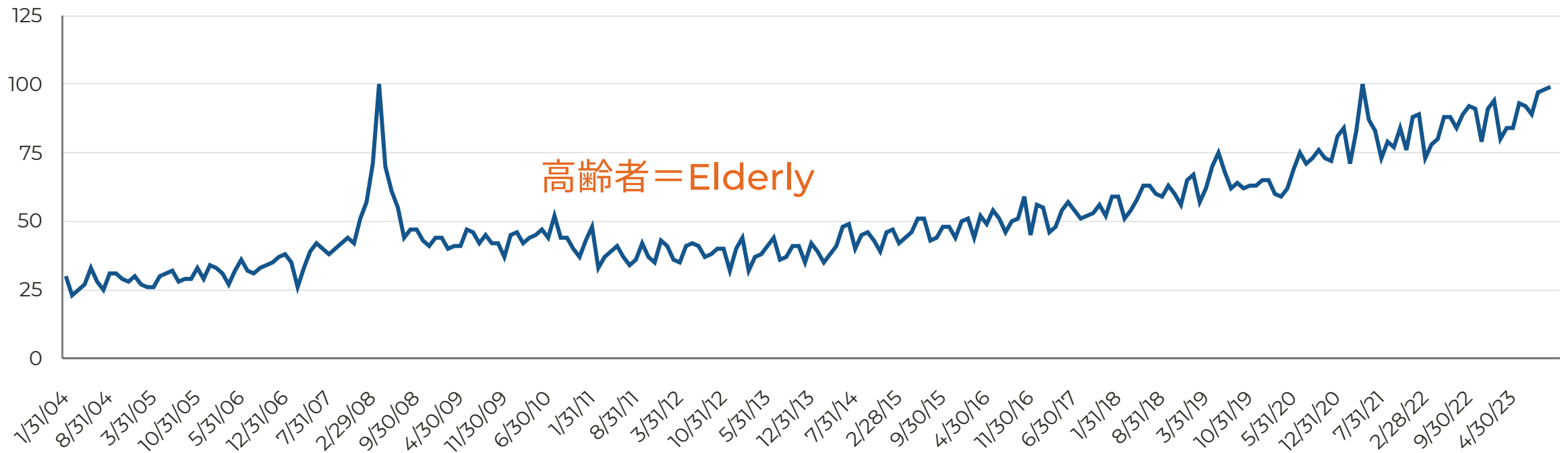
39%



Percentage of Japanese employers accepting workers over the age of 70

Source: [BBC](#) Sept 2023; [Nippon.com](#) Oct 2023

Elderly (高齢者) is a term that is on the mind of Japanese citizens,



Google Trends Search "高齢者"; Geography: Japan; Queried on Nov 27, 2023

perhaps due to various challenges faced by the elderly.



Digital divide



Aging in place



Aging workforce



Loneliness & companionship



Caregiving & care coordination



Mobility

Enhanced Personalization (EP) =
Personalization x Digitization

Robotics + EP + Elderly = **Society 5.0**

What is Society 5.0?



“Part of the government’s plan for societal transformation is **Society 5.0** — harnessing AI, big tech, robotics and the Internet of Things (IoT) to address the country’s falling birth rate and ageing population.”

Source: [FDI Intelligence](#)

Suntory Global Innovation Center Ltd. (since 2013)

XHRO (2023)

Consumer Health

- XHRO is a miniaturized 24/7 body monitor using next-generation AI to unlock the mysteries of the aging system.
- The device, fitting like an earphone, is fitted with a sensor in the back of the neck which collects comprehensive vitals from the entire body.
- This data can be used to optimize one's physical and cognitive performance by deciphering how the body functions over time.
- CES 2023 Innovation Award Honoree

Source & Photo Credit: [CES](#)



Suntory Global Innovation Center Ltd. (since 2013)

腸note (2023)

Consumer Health

- Suntory launched the "Intestinal note" smartphone app on the AppStore, employing advanced "intestinal sound analysis technology" to assess intestinal health.
- The app, which allows users to easily check the health of their intestines by placing the phone's microphone against their stomach for 60 seconds, uses AI to analyze bowel sounds and provide personalized evaluations. It combines these sounds with bowel movement data to suggest optimal intestinal activities.
- The app's potential for business use is significant, as it offers unique customer data for enhancing services, supports research and development through novel data on bowel sounds, and uses data science to find tailored solutions for individual customers, addressing their specific needs.

Source & Photo Credit: [Suntory Innovation](#)



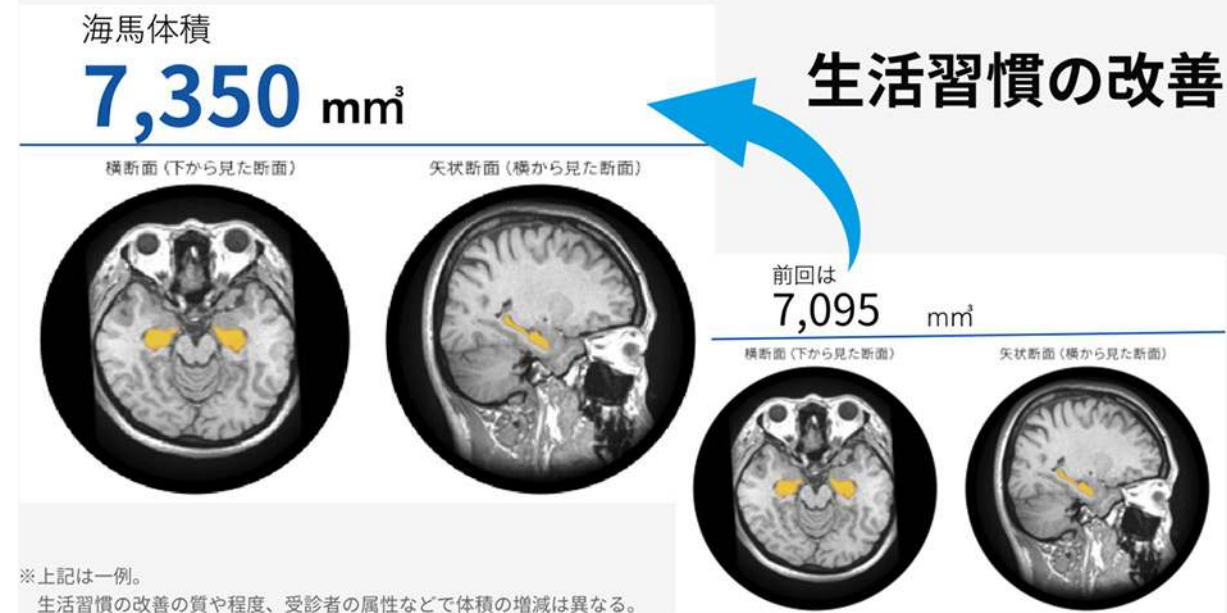
CogSmart Global (2019)

BrainSuite

Health

- Founded in 2019 and originating from Tohoku University, CogSmart is a medical technology startup dedicated to creating a world where people lead healthier lives through the fusion of neuroscience and technology.
- Specializing in the early prevention and cognitive function improvement of dementia, CogSmart's created BrainSuite®, a brain-diagnosis software primarily used in Japanese hospitals and health checkup facilities.
- The company's approach includes mitigating Alzheimer's disease, commonly influenced by lifestyle factors. BrainSuite® aids in this mission by using AI to analyze brain MRI scans, particularly assessing the hippocampus for early signs of atrophy. This service, aimed at healthy adults from their 30s to 70s, not only visualizes brain health compared to peers but also encourages proactive lifestyle changes to maintain and enhance brain wellness, promoting a dementia-free life based on evidence-based neuroscience.

Source & Photo Credit: [BrainSuite](#)



Section 4

Projections

My Projections

My projections about the future of Japan, along with some recommendations

For Founders

- Consider assessing how well your Agetech startup's product fits the Japan market.
- Traveling to Japan could be a great source of inspiration to implement personalization in your startup's solution.
- Offering 'Knowledge as a Service' on personalization technologies could be a valuable venture for a Japanese entrepreneur to pursue in the US Market.
- US entrepreneurs who wish to expand into Japan should try offering enterprise SaaS solutions geared towards digitization or tech training for seniors.

For Investors

- As Japan advances in digital transformation, new ventures can emerge as investments are made into technologies that have great, underutilized potential due to the digital gap (ex. strong tech/IP).
- As Japan boosts digital transformation initiatives, LP involvement (large Japanese corporates) in a data security-focused venture fund investing in SaaS solutions can be expected.
- The next unicorn originating from Japan will likely occupy the space between robotics (expertise), personalization (tradition), and an aging economy (reality).

Thank you!