## JETRO Australia

# AR/VR TRENDS IN JAPAN

#### Overview of the AR/VR market in Japan

Japan is recognized as a world leader in AR/VR technology and has pioneered development of gaming hardware and software over many years.

Until now, VR/AR has largely been used in Japan for entertainment purposes. However, in the coming years, it is expected that the technologies will be applied in an increasingly wide range of industries, including medicine, tourism, retail and manufacturing.

Japan's adoption of 5th generation (5G) wireless technology, strong government support and an increased range of applications for VR/AR technologies will fuel the growth of the this sector.

The AR/VR-related market spending in Japan is expected to grow from 1.29 billion USD (140 billion JPY) in 2018 to 1.78 billion USD (190 billion JPY) in 2019 and 3.42 billion USD (370 billion JPY) in 2023.

The CAGR from 2018 to 2023 is predicted to be 21.5%. By sector, the consumer sector is expected to be the largest market in 2023 at 1.16 billion USD (130 billion JPY) in 2023, while the distribution and service sector is expected to follow at 1.08 billion USD.



\*The numbers from 2020 to 2022 is only calculated on the CAGR condition

AR is well-recognized in the field of entertainment, such as gaming, but its use in the industrial field is increasing rapidly.

According to a survey by Fuji Keizai (Tokyo/Chuo), the domestic market size for industrial AR/MR display equipment (smart glasses) was 2.1 billion JPY in 2018, and is expected to grow to 2.5 billion JPY by 2025.

Source: www.moguravr.com/idc-ar-vr-market-growth-2023/

#### AR/VR market/use sectors in Japan 2023 expenditure forecast (100 million USD)



The main VR/AR players in each of the categories (hardware, software, contents, other) are listed below.

CATEGORY	MAJOR PLAYERS	
Hardware	Fujitsu, NEC, Honda, Koei Tecmo, Alps Electric	
Software	GrapeCity, InstaVR	
Contents	Bandai Namco Entertainment, Avex, Universal Studios Japan, J Sports	
Other (VR services, etc.)	AOI Pro (contents planning/consulting), A440 (contents planning/consulting), Omnibus Japan (contents planning/consulting), Creek & River (contents planning/consulting), Ask (trading company)	

VR/AR is being used in fields outside gaming, some examples of which are listed below.



#### Medical Solutions

Medical solutions startup, HoloEyes, developed by Dr Maki Sugimoto, provides a "virtual anatomical drawing", which enables surgeons to utilize 3D anatomical visualizations of patients.

Doctors can then use head-mounted displays to have a 360 degree view of the patient's anatomy and carry out more precise operations as well as to simulate surgeries.

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Sources: WISDOM



#### Use of AR/VR in Retail

Developed by Psychic VR Lab Co., Ltd., Styly is a VR platform supporting contents that provide a first-of-its-kind shopping experience at department stores, etc. Users can experience virtual spaces instilled with the unique perspective of various fashion brands, and "experience" information about manufacturers through films.

Using virtual reality contents, shopping experiences like never before will be provided, enabling shoppers to experience scenarios such as Tokyo in 2037, being in outer space, or shopping for clothes in a virtual world.

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Sources: Psychic VR Lab website, Women in VR/AR Japan press release, MoguraVR(VR information site), WWD (fashion information site)



#### Use of AR/VR in the Travel Industry

Major Japanese travel agency, H.I.S., is utilizing augmented reality travel pamphlets, requiring users only to have a smartphone to enjoy the contents.

The "moving pamphlet" provides videos of tourist destinations taken by drones, etc., giving the sense of images leaping out of the screen. To view the contents, users only need to use the designated smartphone app to scan photos with an embedded AR marker.



#### Use of AR/VR in Manufacturing

NTT Data Engineering Systems have developed AR technology that supports workers at manufacturing sites in identifying required objects from among massive amounts of stored molds, electrodes and other materials. By holding a smartphone or tablet up to an object, information and a drawing of the object will appear on screen.



#### Use of AR/VR in Vehicle Manufacturing

At the consumer electronics tradeshow, CES, held in January 2017 in the US, Honda announced that in partnership with DreamWorks, the two companies are currently developing "Dream Drive", a development kit for creating VR in-car entertainment software.

The development kit's most prominent feature is the linking between VR headset and live telematics to provide entertainment in sync with the real-time movements of the vehicle.

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#### AR/VR events to be aware of:

There are an increasing number of AR/VR events in Japan that enable direct networking opportunities with Japanese companies in this field.



#### The Tokyo Game Show

Tokyo Game Show is a key industry event based in Tokyo that showcases game software and hardware related to AR (augmented reality), VR (virtual reality) and MR (mixed reality). It is an annual event held in September or October.

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#### CEATEC CEATEC

CEATEC focuses on Cyber Physical Systems (CPS)/IoT to create business opportunities across a wide range of industries. International startups can pitch to potential business partners and investors. It is held annually in October.

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#### **Digital Content Expo**

Digital Content Expo is an international event featuring advanced digital content technology. Every year more than 50,000 people attend. It is an annual event held in October.

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Tailoring your product and service to the Japanese market is key to long term success. End users of AR/ VR products and services expect rapid responses, frequent communications and intensive customer support for new systems introduced. Whether in a strategic partnership with a Japanese firm or as a foreign business servicing the market, Australian companies needs to localize their business development work and adapt their after-sales service to compete well in the market.

Uptake of new AR/VR Technology is rapid and cuts across multiple sectors. Regional areas in Japan are keen to attract investment in this sector. Be sure to ask about incentives that prefectural governments may have on offer to attract new AR/VR businesses to their area.

If you are interested in developing a presence in Japan to compete in this sector speak to JETRO Sydney office.

AR/VR trends in Japan are changing rapidly. This is a summary of information sourced through JETRO reports. If you are interested in investing or commencing business in Japan in this sector seek the latest updates on the trends and regulations through JETRO and original sources. JETRO Tokyo publishes online statistics and reports on the <u>JETRO website</u>.

You will find a range of information on the JETRO website to assist you with setting up an office in Japan. Or if you meet the Invest Japan program criteria, you may be eligible for consultations with industry experts.

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#### HOW JETRO CAN HELP

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### Examples of regional trade events in this sector include:

#### Messe Nagoya

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ET/IoT Technology NAGOYA

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