smart hardware, artificial intelligence and cloud companies — all which are essential components of the metaverse world.

The alliance of more than 20 founding organizations aims to integrate industrial resources in Zhangjiang and build a cooperative platform on market promotion, research and development, and talent training.

The current alliance members include Chinese search engine giant Baidu, German software producer SAP. Irish-American information service and consulting firm Accenture, ShanghaiTech University and various start-ups. Their range of interests covers government, industry, academia, research and venture capital.

WAYZ, a member of the alliance, has established a virtual space encompassing the whole 4.1 square kilometers of the Zhangjiang region.

With glasses or smartphones, people can visit the Zhangjiang metaverse world to obtain coupons for shopping centers, to talk with digital avatars, to check on parking-lot vacancies and to locate underground water pipes, among other applications.

Another alliance member, EasyAR, offers to build virtual worlds for cultural and tourism sites and shopping centers, accessed by visitors with glasses or special mobile miniprograms. Its clients include Yuyuan Garden, Shanghai Haichang Ocean Park and Beijing's Palace Museum, also known as the Forbidden City. Many guide contents are fixed while some can be updated and customized, said Tu Yi, founder and CEO of EasyAR.

"We are playing a role in AutoNavi Maps (a Chinese web mapping, navigation and location-based services provider) in the metaverse world," Tu told Shanghai Daily. "It's a necessity everywhere."

Currently, EasyAR system has about 200,000 third-party developers -40percent of them overseas.

Alice, a virtual idol created by GLA Art, celebrated her first anniversary in July. In her first year, Alice has taken on many roles, including music producer, fashion editor and promoter of brands such as Gucci, Nike and watchmaker IWC.

With the new technologies, a super realistic avatar can be created within three days, compared with three to five months previously. The avatars delicately reproduce human wrinkles and have micro-expressions and



A super realistic avatar can be created within three days. The avatars can be used in design and marketing sectors, according to Deemos, a start-up offering digital identity in the metaverse. — Ti Gong

human-like emotions. The avatars can be used in design and marketing sectors, said Deemos, a start-up offering digital identity in the metaverse.

The company also offers a simplified animation avatar for consumers to be stored in smartphones. Deemos, created in a nurturing project at ShanghaiTech University, has made about 700 animation avatars for students and graduates.

Metaverse conferences and office systems are also emerging.

Shanghai Daily was recently invited to attend a metaverse conference that featured a simulated meeting hall with rooms and elevators, direction signs on the floors, welcoming ladies, organizers' business cards on a reception desk and seats to click to sit down.

Everyone was required to create an avatar with choices of name, title, clothing style and sex gender. That identity was projected on a visitor's

Start-up Gooey, the conference organizer, and its partners outlined a bright future for metaverse in digital marketing, conferencing, exhibitions, the virtual community and digital information collection.

"Metaverse marketing demand in China can't be fully met yet," said Wang Ning, founder of Gooey, who calls himself a metaverse marketing specialist. "It's a new communication channel that touches a new generation of consumers willing to try and spend."

Kevin Chen, who founded digital marketing firm GTE, said digital collection is a "game changer" after the coronavirus pandemic.

Chen said his company has been invited to introduce GTE's new digital collection portfolios for bigname finance and electronic brands. Blockchain-powered NFT (non-fungible token) gifts are used as special presents and souvenirs for consumers, aiming to improve user loyalty or expand marketing opportunities.

"Everyone is talking about NFT," Chen told Shanghai Daily. "My business is a licensing business, instead of traditional marketing."

Chen said authorized gifts can be tracked but are not for resale or resending to others.

NFTs are often traded in cryptocurrencies overseas, while such trading remains illegal on the Chinese mainland. In the domestic market, the trade in NFT products in yuan often raises legal and social issues, like scalping and overhype.

"Shanghai will strengthen mechanisms and guidance on metaverse to prevent risks, while creating an inclusive and open environment," said Qiu of the economy and information commission.

Potential risks also include network security and personal information leakage, which can be dealt with by technology, according to ANGeek, a Zhangjiang-based cyber security start-up.

The Zhangjiang metaverse alliance mainly covers the industries of integrated circuit, mobile Internet, AI, finance technology, digital culture, smart manufacturing and information security.

In addition to Zhangjiang, Shanghai has also opened a city-level metaverse industry park in Caohejing in Xuhui District.

In a blueprint released recently, Shanghai projected development of 10 leading metaverse firms with global influence and more than 50 related applications covering commercial, education, smart manufacturing and cultural sectors.

Such developments promise to increase the value of the metaverse in the city to 350 billion yuan (US\$53 billion) by 2025.



Shanghai will strengthen mechanisms and guidance on metaverse to prevent risks, while creating an inclusive and open environment.

Qiu Wei

An official at the Shanghai Commission of Economy and Informatization



Virtual idol Alice has played many roles in the past year. — Zhu Shenshen