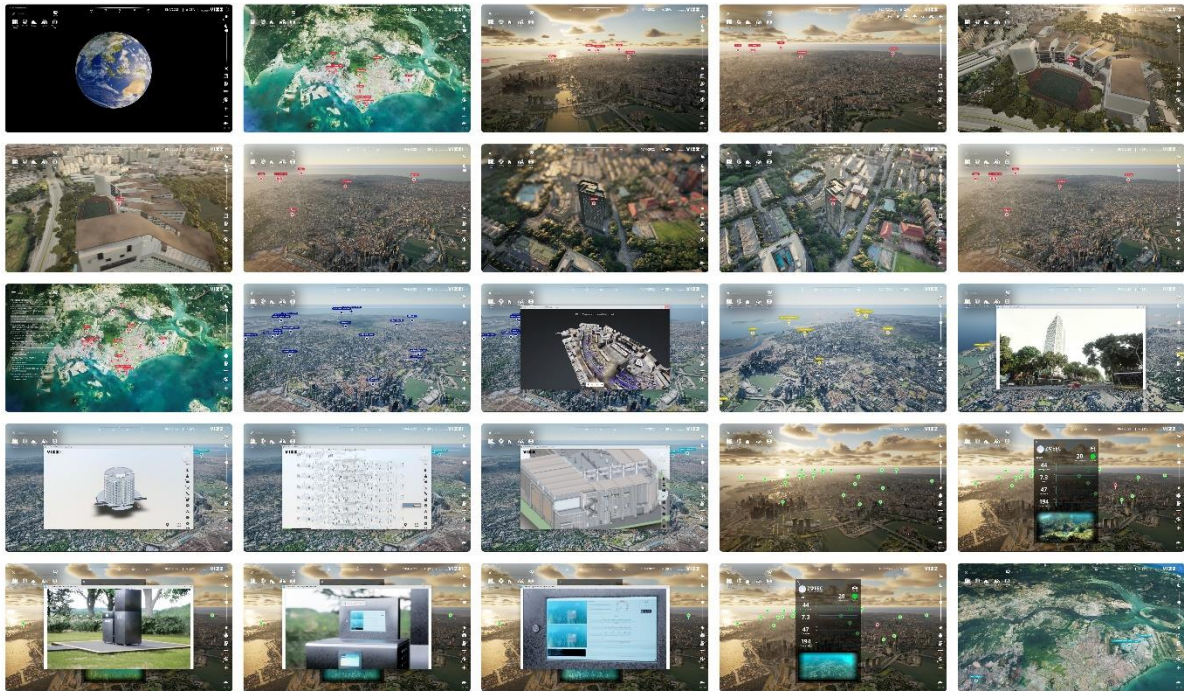**VIZZIO signs MOU with ZWEEC for cooperation in the Fields of Water Quality Monitoring, using Geo-Spatial Technology, A.I. and Digital Twin in the Domains of Utilities**

VIZZIO will create a nation-wide real-time interactive 3D platform built on a digital twin of Singapore that enables ZWEEC to provide analytics data for water management.

Singapore, 20 April 2022 – VIZZIO Technologies, a Singapore-based technology company specialized in creating and virtualizing digital realities using AI, today signed a Memorandum of Understanding (MOU) agreement with ZWEEC Analytics at Singapore International Water Week 2022 to utilise VIZZIO's capabilities in creating Digital Twin and ZWEEC's water technology solutions for the purpose of water quality management. Both companies agree to jointly work on projects in Singapore and overseas for the domain of utilities.
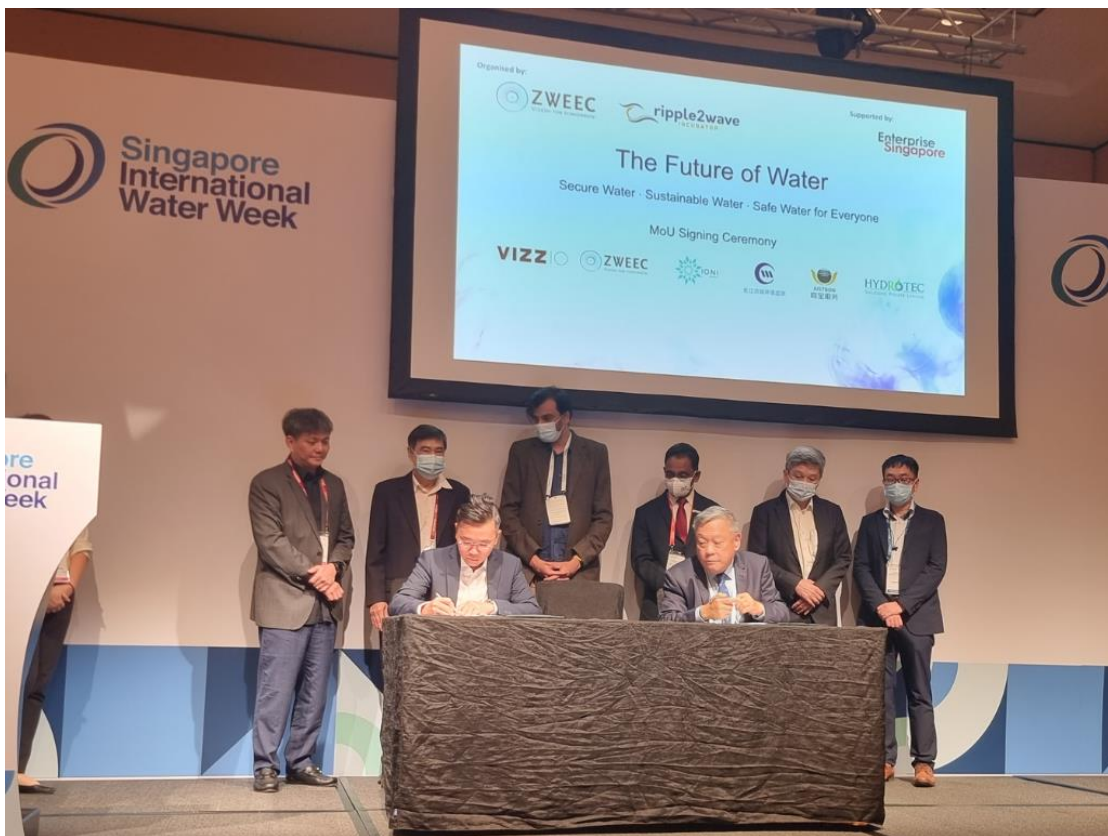
VIZZIO will first create a nation-wide real-time interactive 3D platform to model a digital twin of Singapore covering 300 square kilometers of facilities and an underground network of pipes. Thereafter, using video streams of ZWEEC's bio-sensing fishes, VIZZIO's AI platform produces a digital visualisation of their animated path, allowing the collection of data to allow for deep learning of the behaviour thereby creating a meaningful report of the water quality.

The national 3D BIO-SENSING 3D digital twins uses AI processes to combine real-time data from the network combined with external data such as historical water

demand profiles and forecast weather data to simulate the amount of water required in each part of the network and to optimize pumping schedules to meet these demands. **This leads to energy savings of around 10 percent or more.** It also enables system engineers to design network extensions and to simulate future demand and to balance multivariate decisions around CAPEX, OPEX, energy use, headroom, resilience, asset life, etc.

VIZZIO also created a robust, physically based digital twin for water and wastewater treatment plants. In the case of wastewater, VIZZIO has built a database of modules that replicate the physical, chemical, biological, and hydrologic processes for over 800 input parameters and 300 treatment processes. These modules can be combined to build any configuration of plant and model any range of scenarios, even in the absence of any client data. This allows VIZZIO's platform to be used to simulate the performance of new plants even before they are built. Once data is present, it can be used to further optimize the performance of the digital twin, and the use of machine learning or AI can drive this even further. As a result, we have the flexibility of a physical-based digital twin with the constant updating of a data twin.

Available as a city-scale 3D modelling and visualisation solution with primary and secondary monitoring nodes, it combines unparalleled detection capabilities with track and trace of contaminations in an economically feasible solution. Profiling incidents in toxic/ non-toxic categories allow for the development of optimized response protocols. The combined solution has a wide range of applications including the monitoring of water quality at treatment plants and in industrial applications, monitoring of drinking water quality in distribution networks and monitoring the water quality of rivers and lakes.

"This partnership marks a close commercial collaboration between ZWEEC and VIZZIO, optimizing commercial synergies and making use of the complementary geographical presence and client bases in Asia Pacific and Europe. An important focus market for the combined product offering will be China, where ZWEEC has already established a direct local presence and client base", said **Dr. Jon Lee, CEO & Founder, VIZZIO Technologies**.

Combined into ZWEEC's new AquaPRO concept, the integrated DIGITAL TWIN solution offers an intelligent early warning system that captures any relevant change in the water quality while providing real time information on the toxicity status of water quality incidents. VIZZIO's 3D digital twin of ZWEEC's island-wide BIO-SENSING monitoring stations layered over a network of underground pipes covering an area of more than 300 square kilometres uses advanced AI deep learning algorithms and 3D Computer Vision to spot patterns in collected imagery, video and data and can make decisions or provide alerts based on these patterns.

Mr Roland Tan, Board Director of ZWEEC Analytics, shared, "We are delighted to be able to partner with VIZZIO to make a positive impact with our integrated secure water technology solutions to support the sustainable development of the communities and the environments we serve in the region. This is a testament of our continued commitment to provide cutting edge, innovative and critical first-to-market solutions that are trusted by water industry leaders from around the world."

Photo and Video Assets: https://bit.ly/VIZZIOZWEEC

About VIZZIO

VIZZIO is a venture-backed company that is on a mission to democratize and simplify 3D. Based in Singapore, VIZZIO aims to build the world's largest 3D capture and virtualization ecosystem for objects, space and cities. Harnessing the power of AI, VIZZIO'S technologies allow users – from novices to digital experts across all manner of industries – to access best-in-class 3D-as-a-Service offerings on demand, enabling anyone to co-create, virtualize and interact with digital realities.

We are building a DIMENSIONALLY-ACCURATE, HYPER-PHOTOREALISTIC, REAL-TIME, SEMANTIC 3D DIGITAL TWIN OF THE ENTIRE PLANET via deep learning and satellite imagery at a global scale, backed by an AI automated pipeline that segments and understands the semantics of point cloud and generates usable parametric and 3D models. Our AI-based real-time 3D reconstruction approach solves for global pose alignment and obtains dense volumetric reconstructions at a level of quality and completeness that was previously only attainable with human intervention to perform the manual model correction.

VIZZIO has been spearheading the adoption of dimensionally accurate and immersive 3D capture & visualisations for Singapore's leading government agencies and companies including Singapore Civil Defense Force (SCDF), Government Technology Agency of Singapore (GovTech), National University of Singapore (NUS) and SMRT Corporation (SMRT) as well as Singapore based companies such as AETOS, CapitaLand, SATS, StarHub, DP Architects among others.

For more information, please visit https://vizzio.ai/

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About ZWEEC Analytics

ZWEEC is a leading Singapore-based technology company focused on building innovative and secure water technology solutions. Adopting an integrated and data-driven approach, our solutions leverage on advance analytics, artificial intelligence and predictive modelling to power IoT solutions that drive early intervention opportunities. Our award-winning water technology solutions, available as on-premises implementation and as secure cloud solutions, are trusted by water industry leaders from around the world.

For more information, please visit www.zweec.com

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