

# “We are exploring the 3D vision with Bentley Systems”



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On November 14 and 15, Bentley Systems hosted the [Year in Infrastructure Conference and Going Digital Awards 2022](#) in London. The Going Digital Awards recognise the work of Bentley software users on infrastructure projects across the world. In the Surveying & Monitoring category, Bentley Systems recognized projects that demonstrated excellence and digital advancements in capturing the current and changing condition of assets. One of the projects that made it to the three finalists in this category was AEGEA and Brazil’s Largest 3D Sanitation Map (Digitalization of Rio De Janeiro).

During the two-day Conference, the Smart Water Magazine team had the chance to speak with AEGEA’s team responsible for the project. In this interview, Wagner Oliveira de Carvalho, Senior Product Manager at AEGEA, explains in detail the company’s project.

## About the project

The Infra Inteligente program aims to identify and verify all physical assets of Aegea’s sanitation operation by creating a **digital 3D map of their structures located across 13 Brazilian states**. As part of this digitalization program, Aegea implemented its largest asset inventory project in Rio de Janeiro, requiring capturing and integrating more than 29,000 physical assets, 1,317 industrial plants, and 211,000 surveys. To enable 70 specialists from multiple engineering disciplines to complete the project, Aegea needed integrated BIM and reality modeling technology.

Leveraging ContextCapture and Bentley’s open modeling applications, Aegea processed a total of 156,000 drone-captured photos to generate a 3D reality mesh and digital twin. Creating a virtual reality environment provides real-time asset and plant insight to monitor equipment health and operation, enabling digital lifecycle management of sanitation assets, optimizing performance, service availability, and reliability. The 3D digital solution ensures risk mitigation and operational efficiencies and facilitates the modernization of Aegea’s sanitation network.

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**THE YEAR IN INFRASTRUCTURE AND GOING DIGITAL AWARDS**  
 BRAZIL’S LARGEST 3D SANITATION MAP [DIGITALIZATION OF RIO DE JANEIRO]

**Wagner Oliveira de Carvalho**  
 Senior Project Manager at AEGEA

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