

Siemens and Bentley Systems build digital twin for the largest integrated petrochemical complex in Indonesia

- **First digital twin in petrochemical industry in Indonesia – for Chandra Asri**
- **Transforms analog plant data into automated digital twin framework**
- **One integrated platform for digital management of all plant asset documentation and data**
- **Provides control and transparency of plant asset information, increasing performance**

Siemens and Bentley Systems will develop the first petrochemical digital twin in Indonesia for Chandra Asri, the country's largest integrated petrochemical complex. With over 27 year footprint, the latter is set to double its capacity in the next five years to tap into the robust domestic and regional economic growth.

The development and implementation of this digital twin will take place in phases, from 2020 – 2025. FKA Global is the systems integration partner and will provide digitalization services, maintenance and further enhancement of the solution post-implementation.

The digital twin of Chandra Asri's integrated petrochemical complex in Cilegon City will show and visualize digitalized data about the plant assets and the engineering data. Therefore analog plant data are transformed into an automated digital twin framework. This reduces risks of error. The information will henceforth be accessible through one integrated digital platform, ensuring data accuracy, consistency and integrity, as well as ease-of-maintenance.

“We welcome this partnership with Bentley and Siemens and look forward to great results in the future. As Chandra Asri embarks on our digital transformation journey that is aligned with Indonesia’s Industry 4.0 outlook, having a trusted and reliable partner will set us apart from others and brings a more strategic advantage to our position in the market,” said Erwin Ciputra, President Director of Chandra Asri. “Our ambitious second petrochemical complex expansion to meet Indonesia’s growing demand will certainly benefit from a digitalized end-to-end operations,” he added.

AssetWise from Bentley Systems and COMOS from Siemens will form the foundation of the digital twin solution. AssetWise is an asset performance software that provides informed decision support and management of change from capital planning through proactive asset maintenance. COMOS is an integrated plant management and lifecycle software that integrates engineering, automation and operations data, with a customizable blueprint for brownfield plant data enablement. In addition, Bentley’s engineering design tools, OpenPlant and ProSteel, will be used to model and maintain piping and structural information for both brownfield and greenfield projects. Together, the joint solution will maintain data integrity and accuracy throughout the lifecycle.

PlantSight is the digital twin solution for the process industry that was jointly developed by Siemens and Bentley. Recently enhanced to support asset performance and reliability processes, the digital twin solution will enable companies to handle volumes more IIoT data and utilize real-time analytics and the power of AI to gain insights and enable real-time collaboration between Engineering, Operations and Maintenance.

The use of this technology will allow more informed decision support from capital planning through proactive asset maintenance, mitigating risks and increasing operational efficiency, plus ensuring regulatory compliance.

“We are proud to partner with Chandra Asri in their digital transformation journey. Our COMOS brownfield enablement methodology supports Chandra Asri to transform their disparate, analog plant data into an automated digital twin framework, making the plant more efficient and cost-effective. This will help Chandra Asri to further enhance their digital transformation journey. Siemens is offering a

uniquely integrated Electrification – Automation – Digitalization portfolio along the entire lifecycle of process plants,” commented Eckard Eberle, CEO Process Automation,

“Bentley and Siemens have been working together for many years to openly integrate our complimentary portfolio of solutions for the process sector” said Alan Kiraly, Senior Vice President, Asset and Network Performance, Bentley Systems. “Chandra Asri will benefit immediately from the adoption of our highly productive and interoperable solutions by first establishing a solid asset information foundation that gives them accurate and readily assessible information. This foundation will set the stage for the digital twin platform for the future on which they can transform their work processes and achieve their Industry 4.0 vision.”



Siemens and Bentley Systems will develop the first petrochemical digital twin in Indonesia for Chandra Asri, the country’s largest integrated petrochemical complex. (Credits: Chandra Asri, Indonesia)

This press release and a press picture are available at <https://sie.ag/2Ogh3gE>

Contact for journalists:

Evelyne Kadel

Phone: +49 173 5649 708 ; E-mail: evelyne.kadel@siemens.com

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