

The chemical plant of the future

Harnessing data to drive circularity and improve safety and efficiency

[Download our whitepaper](#)

Chemical companies are under pressure to meet sustainability goals while improving efficiency and safety.

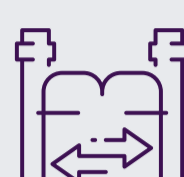
These achievements are possible by harnessing the power of information, artificial intelligence (AI), and human insight in the cloud. Chemical companies must:



Deliver cost-effective capital projects to enable a circular economy and react fast to market demands



Raise operator competency and reduce the knowledge gap to start-up and operate reliably



Empower teams to maintain a competitive edge using a **Digital Twin strategy**

Accelerate digital transformation in plants

Chemical companies and their Engineering, Procurement, Construction (EPC) partners are leveraging digitalization to deliver cost-effective, safe capital projects and optimal, ESG-focused operations.



Digital twin

The cloud-enabled digital twin aligns all teams and disciplines around a single source of trusted data. It provides end-to-end visibility of the capital project, breaking down silos and fostering a culture of trusted collaboration and innovation.

Process simulation

With a multi-purpose process simulation, process engineers can analyze and optimize complex processes easily, as well as introduce new processes. The new generation of process simulators allows a much faster comparison of different scenarios based on the desired outcomes.



58% of chemical industry CEOs are prioritizing and/or investing in sustainability and the circular economy¹

Creating a circular economy²

Chemical plants are becoming more complex, larger, and more tightly integrated. Process simulation is the first step to enable the circular economy, which includes:



Agile development of new products and processes



A **transformational platform** that reduces simulation effort



Increased team engagement and creativity



Addressing challenges that you could not solve before



Integrating asset data and process behavior into the **Digital Twin** throughout the lifecycle



50% less effort is needed to create plant process simulations & run hundreds of scenarios with a reliable digital twin

Success story

Covestro cut cost and inefficiencies across its process lifecycle by standardizing on AVEVA Process Simulation⁴

One single model for the entire lifecycle and all departments

[Read more](#)



AVEVA: Delivering sustainable business value for over 50 years



20,000+ industrial enterprises



6,500+ employees



5,500+ partners



5,700+ certified developers

The connected, digital chemical plant of the future starts here

AVEVA's solutions provide Owner Operators and Engineering, Procurement and Construction companies (EPCs) with comprehensive digital engineering solutions that span greenfield plants, capital projects, brownfield plants, and Digital Twin initiatives.

[Learn more](#)



Sources

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