

Press Release

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Digital twin for cross-disciplinary integration

Oxea puts its trust in Engineering Base as the lifecycle system for its plants

Aucotec's Engineering Base (EB) platform will ensure the consistency of the plant and the digital image at Oxea in the future. The leading manufacturer of oxo chemicals has decided to develop and operate its plants with the data-centred, cooperative system from the first sketch to predictive maintenance. It thus forms the basis for the digital twins of Oxea's plants over their entire life cycle.

A key specification of the plant planner, installer and operator was that modern engineering must consistently merge the diverse workflows, documents, data and changes of the various disciplines and suppliers. Duplicate work, manual data transfer and multiple storage is too time consuming. EB's bandwidth now reduces Oxea's multiplicity of tools and combines basic engineering with simulation support, detail engineering and operation & maintenance.

Forward-looking digital

"EB's integrative concept, the optimization of interdisciplinary workflows, the use of future-proof cloud technology and the simple, intuitive operation have convinced Oxea just as much as EB's understanding of standards such as Dexpi or NE 150," Aucotec board member Uwe Vogt is looking forward to working with the chemical specialist. On the Oxea side, Dr Oliver Bülters, head of the engineering department, sees his company on the right track to Industry 4.0. "The keys to digitization for us are above all the Digital Twin, plant modeling, predictive maintenance and fully integrated, networked systems and processes. The use of EB will massively support all these issues." He also expects process and design optimization to bring a significant reduction in engineering and operating costs. In addition, Aucotec presented the most convincing concept for data migration during the thorough system research.

Consistent at all times: a versatile data model for all users

Bülters refers directly to the core of the platform: the versatile data model of the plant that is always up-to-date, globally accessible and consistent for all users. "Our planners, the simulation specialists, prefabrication, assembly and ongoing operation will all access EB's digital plant twin in the future. Paper documentation that is difficult to maintain is eliminated, as is the comparison of redundant data pots of different tools." In addition, the individual development steps of a plant, including testing and approval processes, can be easily and permanently traced.

Open and flexible for expansion

Since EB proved to be very customizable and open to integration into Oxea's system landscape during the evaluation, including the integration of SAP data, Oliver Bülters says the platform is of interest for the entire group. The Marl, Amsterdam and Nanjing (China) branches are also under discussion as potential new users.

Links to images*:



[Carboxylic acid plant](#)

Aucotec's Engineering Base forms the basis for Oxea's digital plant twins over their entire life cycle. (©: OXEA)



[Dr Oliver Bülter, Head of Engineering at Oxea](#)

"Planners, simulation specialists, prefabrication, assembly and ongoing operation will all have access to EB's digital plant twin in the future. This eliminates the need to synchronize different tools." (© OXEA, Dr. O. Bülter)



[Uwe Vogt, Aucotec Board Member](#)

"The optimization of interdisciplinary workflows, future-proof cloud technology and intuitive operation have convinced Oxea just as much as EB's understanding of standards such as Dexpi or NE 150." (© AUCOTEC AG)

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[Oxea GmbH](#) based in Monheim am Rhein is the world leader in the production of OXO products. They are required, for example, for the production of coatings, pharmaceuticals, lubricants, flavourings, fragrances, paints and plastics. In addition to the main plant in Oberhausen, the company operates production facilities in Marl, Amsterdam, Nanjing (China) and Bay City and Bishop (both USA). Internationally, the operator employs around 1,200 people. Oxea has been part of the Oman Oil Company (OOC) since 2013.

[Aucotec AG](#) has more than 30 years' experience in the development of engineering software designed for use throughout the service life of machinery, plant equipment and mobile systems. Available solutions range from flow diagrams and process-control/electrical technology for large-scale plant systems to modular on-board power supply units designed for the automotive industry. Software supplied by Aucotec is currently in operation throughout the world. Hanover-based Aucotec also operates six further sites in its home country of Germany, along with subsidiaries in China, France, the UK, Italy, Austria, Poland, Sweden and the United States, while counting on a global network of partners to supply local support throughout the world.

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