SYNGENTA

Turning data into insight

Global agribusiness adopts OSIsoft’s PI System to better access data and enhance the company’s operations

Syngenta is a global agribusiness that produces agrochemicals and seeds. The company has more than 29,000 employees in 90 countries, with revenues of more than US$14 billion. Syngenta’s mission is to bring plant potential to life, supporting a sustainable transformation in farming productivity and communities.

Using its trademarked Enogen genetic biotechnology, Syngenta develops seeds for ethanol plants with traits such as insect resistance or water optimisation. The company’s challenge was to develop a way to demonstrate that investing in Enogen technology would increase plant efficiency and yield, while reducing overall costs.

This is where a Connected Services agreement with Microsoft partner OSIsoft came in. Syngenta asked OSIsoft to deploy the PI System so staff could access and analyse plant data to quantify the operational benefits of Enogen corn. As an example of these benefits, Enogen corn-enabled efficiency improvements in a 100-million gallon plant include savings of more than 68 million gallons of water, and nearly 10 million kilowatt hours of electricity.

During initial trials, Syngenta worked with plants to agree on data definitions, financial models, and the financial value of operational key performance indicators (KPI). They modelled plant data with OSIsoft’s Asset Framework, and used OSIsoft’s PI System tools via Microsoft Azure, such as PI DataLink, PI ProcessBook and PI Vision. Event Frames was used to validate data, record operational baselines, and calculate operational improvements linked with Enogen.

OSIsoft Connected Services is a subscription-based licensing agreement that supports a commercial agreement between businesses. With Connected Services, Syngenta can monitor the growth of Enogen-based seed on behalf of its customers, provide recommendations and advice and provide insight that their customers can use to optimise their own businesses.

By using their customers’ own data and KPIs, Syngenta can now demonstrate that Enogen technology drives significant enhancements in process efficiency while increasing yield and throughput.

The flexibility of OSIsoft’s Connected Services allows Syngenta to expand its data services as more ethanol plants adopt Enogen technology. The PI System is key to Enogen’s role in Syngenta’s ‘Good Growth’ plan and reaching 2020 revenue goals.

“Syngenta was a pathfinder and a great early adopter customer story for Microsoft Azure-based Connected Services,” said Prabal Acharyya, worldwide director, internet of things (IoT) analytics and One Microsoft at OSIsoft.

“Together with Microsoft, we are embarking on a subscription-based software-as-a-service model for the agriculture industry and industrial agriculture customers.”

The transformational journey that the Enogen team has taken has involved the use of many of the newest OSIsoft PI and Microsoft technologies, including Microsoft Azure, Asset Framework and Event Frames.

“There is a broader digitisation that is happening across the chemical and agriculture industry,” said Egbert Schroer, worldwide managing director, Process Manufacturing and Resources Industry, Microsoft. “The data from a combination of cloud-based IoT, artificial intelligence and data services in Microsoft Azure help us to improve operational excellence in great partnership with OSIsoft.”

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