

# ABB delivers asset life extension study for Syngenta herbicides production plant in US



ABB undertakes comprehensive study to secure up to two more decades of safe, reliable operations of assets at Syngenta’s crop protection manufacturing site in St Gabriel, Louisiana.

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Syngenta herbicides production plant, St Gabriel, Louisiana, US

Syngenta Group is a Swiss-headquartered multinational specialising in agricultural crop protection and seed solutions. It employs some 28,000 people worldwide. The group was acquired in 2016 by ChemChina for USD 43bn.

### Customer Challenge

As operating plants approach the end of their design life, an asset life assessment is vital to identify the investment required to preserve integrity and sustain present operating performance. Syngenta’s herbicides factory in St Gabriel dates back to the 1970s, so the assets are approaching 50 years old. It had experienced reliability issues in recent years due to aging plant, in addition to some loss of containment incidents. The company needed help to identify what is needed to ensure optimal operations up to 2040, and reached out to consultants for support.

### Why ABB

ABB had already performed an asset life assessment for Syngenta’s Huddersfield Manufacturing Centre in the UK, which they found very useful. Based on this track record, Syngenta contacted ABB Consulting Services in late 2019 with an enquiry to do the same at St Gabriel.

ABB presented the pRIME (process Reliability and Integrity Management Excellence) process encompassing the scope of deliverables and benefits. ABB’s approach to assess the condition of the plant, maintenance regimes and identify what will be needed over the next 20 years in terms of timing and cost expenditure, met Syngenta’s requirements. ABB was invited to bid for the work in competition with other consultants. However, while competitors offered to perform studies with no track record of delivery, ABB has a track record in both methodology and successful delivery.

### Scope of delivery

ABB’s pRIME methodology promotes integrity management through recognising symptoms, diagnosing issues, and recommending improvements. Studies develop a view of equipment life based on deterioration mechanisms – both those a customer is aware of and planned for, as well as those they might not be aware of.

A typical assessment involves gathering information such as equipment lists and previous inspection histories for each item. This is followed by a physical site visit by ABB experts to get a general overview of the actual plant condition versus the inspection history, and detailed interviews with operators and maintenance personnel. Reports are then drawn up on equipment, comparing categories, and requirements for major/minor repairs or

replacement. Recommendations are substantiated with costs and scheduling information. All this is uploaded into the pRIME database to populate reports tailored to each customer. Different levels of report can be generated, from an executive summary for board attention, to site reports and detailed equipment reports.

In Syngenta's case, the challenge for the ABB project team was accessibility and availability of data, coupled with Covid-19 travel restrictions. These made it impossible to visit the site in person. In order to progress Wave 1, it was agreed to use ABB Ability™ Remote Insights application for a virtual site tour. US competitors could have gone on site but Syngenta stuck with ABB and this remote collaborative solution. ABB Ability™ Remote Insights improves interaction between experts and personnel in the field by enabling live communication to which augmented reality can also be added.

A representative from Syngenta performed the tour at St Gabriel using a camera and headset to communicate with the UK team in real time. It was the first time that headsets were used for a virtual tour. The process took a few hours longer than a physical visit and was completed despite connectivity challenges – the plant was not built for digital operations and no wifi was available, so the team had to depend on 4G. The detailed client-side interviews were also conducted remotely using Microsoft Teams.

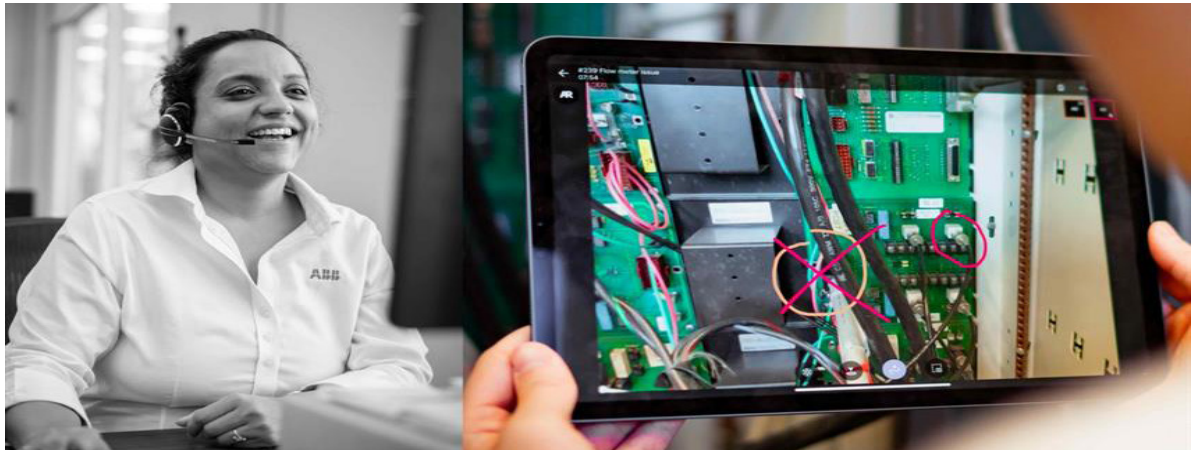
The Syngenta project was split into two waves (phases). Wave 1 included four plant operating units and Wave 2 covered seven operating units. Syngenta was in line to assess the output of Wave 1 before committing to Wave 2. The UK project team comprised five UK consultants leveraging ABB's US office for support in a good example of effective cross-border collaboration.

#### **Benefit to the client**

The main benefit of ABB's assessment is that it will help Syngenta ensure the St Gabriel plant operates reliably for the next 20 years, with reduced OPEX and optimized CAPEX. It adds value regarding future threats to the business, as well as safeguarding Syngenta's reputation for safe operations. The assessment also provides third-party verification to secure investment.

Buying advice versus a concrete product delivery is always challenging. Advice must be highly differentiated to ensure customers make the right investments. Syngenta will need to invest hundreds of millions of dollars in the coming years, so a key factor was their confidence in what ABB recommends. Where other suppliers could suggest taking action that is not in fact necessary, ABB prides itself in providing correct and impartial advice. Choosing ABB is buying trust.

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ABB Remote Insight application used for virtual site tour



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