

CASE STUDY

2020



**Standardising Global
Operations For One of The
Leading Top Three Seed
Producers In The World**

THE CLIENT:

The client is a Swiss-based global company that produces agrochemicals and seeds for farming communities around the world. As the world's largest crop-chemical producer, the company is helping to improve global food security by enabling farmers to make a more sustainable use of available resources. The organisation is committed

to improving farm productivity, protecting land from degradation, enhancing biodiversity, and revitalising rural communities through partnerships and collaborations. Their strong portfolio of 30 vegetable species and more than 2,500 varieties makes them the partner of choice for growers around the world.



THE CHALLENGE:

Being a progressive organisation that carried out operations in multiple countries, digitising the various operations across the board is one of its priorities. Many of the field processes were performed manually, which led to discrepancies in data storage and analysis. Reports from its farms were not consistent across regions, and the extensive paperwork resulted in loss of valuable data.

The company's seed production division required a one-stop solution that improved efficiency for users at all levels and also provided real-time updates to key stakeholders around the globe. The solution also had to

be user-friendly and customisable to the requirements of users in the different regions. In regions where the staff were being paid by the hour, the team required a reliable system that could help make their operations more efficient and productive, and cut down avoidable administrative expenses.

In light of the unique regional challenges, the company gave a go-ahead for each of the countries to opt for a solution that suited their operations and requirements the best.

THE CLIENT:

The company's need of the hour was a comprehensive, user-friendly solution that could help achieve the following objectives:



Standardise global operations



Increase productivity



Promote process transparency



Arrive at reliable yield estimate



Fuel pre-commercial traceability



Integrate with existing systems

OUR SOLUTION:

After considering many other options for a farm management solution that works best for their requirements, CropIn was selected to demonstrate a proof of concept for its SaaS solution 'SmartFarm'.

SmartFarm is an end-to-end farm data management solution that monitors all processes leading up to harvest. The solution leverages ground-truth data, weather advisory, and accurate insights based on satellite monitoring to enable data-driven farm and business operations. By tracking, managing and monitoring every step — from input to execution — all in one place, SmartFarm helps achieve efficiency, and improves traceability and output predictability.

RESULT:

What initially started as a six-country pilot project today covers 80% of the client's global seed production business that manages diverse crops that include sunflower, corn, rapeseeds, soybean, rice, cereals and other F&V seeds, and hundreds of crop varieties on both small and large farm holdings. CropIn has not only been able to provide an effective solution to some of its major problems, but has proven to be an easy-to-use digital solution that fulfilled all of its objectives.

STANDARDISING GLOBAL OPERATIONS



The client uses CropIn's platform to digitise the production operations of commercial seed varieties and their parent lines in Latin America, EAME, and India. SmartFarm has enabled the field staff to capture farm-level data including the plot, its farmer and crop details, and also provided managers with targeted information about everyday field operations. The organisation has been able to configure the solution to suit the requirements for diverse regions, each with its own unique specifications, while also being able to standardise its communications and processes across 16 countries.

INCREASING PRODUCTIVITY



Adopting CropIn's platform brought about ease of operations, both on and off the field. By configuring SmartFarm to each user-level's specific requirements, the field staff were able to accurately track and capture essential data points, even from activities that were unplanned. Additionally, users can customise and generate reports by combining pre-season data from the client's master data systems and the in-season data captured real-time using SmartFarm. These reports and data analytics provide the Management and Leadership teams with business and operational intelligence for strategic decision making that enhances business operations globally. CropIn's multi-stakeholder platform also serviced the needs of different departments in the

RESULT:

production ecosystem, including MOM, SPR, QA, Trialling, by providing access to centralised real-time cloud data.

CropIn, in conjunction with the Leadership, is aiming to support the client with its sustainability goals by reducing the amount of paperwork involved in creating and submitting reports. Making the data available online for authorised users to access it as needed will simplify administrative processes, and also cut down avoidable expenses.

PROMOTE TRANSPARENCY



By allowing digitisation of operations throughout the seed production cycle, each of the processes were captured in the application at real-time. For instance, field staff utilise SmartFarm to capture the coordinates of the farm and audit its exact cultivable area to validate farm acreage. In addition, CropIn serves as a centralised platform where users at multiple levels in various departments can access farm-level data and insightful reports on the activities, to further improve people, process and performance.

YIELD ESTIMATION



Based on historical data for a crop variety, the client will provide its contract farmers with a reliable real-time estimation of yield for the same before the start of season. This intelligence helps both the farmers and the field extension teams to plan their tasks accordingly, while also helping the research team to improve the performance and quality of the seed variety based on current plot-level data.

PRE-COMMERCIAL TRACEABILITY



CropIn's digital platform facilitates monitoring of field activities for intensive quality control. By configuring best package of practices for each crop variety, and by creating

a detailed activity plan based on the crop's growth cycle, the field staff can ensure that the right farm practices are being followed at the right point of time. This ensures higher quality produce that is compliant with international market regulations and standards. SmartFarm also enables users to generate customised reports on the various activities and processes that went into producing the seed.

Furthermore, CropIn's modules also help the organisation with its Good Growth Plan in the EAME region to monitor parameters contributing to sustainable agronomic practices.

INTEGRATION WITH EXISTING SYSTEMS



CropIn's APIs allow seamless integration with existing systems. For the client, this translates into easy integration of data captured using CropIn with their custom middleware solution, in addition to incorporating additional and unique business logics of Syn to enhance the overall capabilities of the solution in servicing business use cases. The simplicity of SmartFarm is enabling global users who are higher up in the hierarchy to customise their own dashboard by connecting to CropIn's APIs with no additional help. This is made possible using QlikSense integration, which authorises users to extract reports and graphs that they need.

To enable additional data processing, a custom requirement from the client was also taken up, where a middleware was used to further calculate the data filled in CropIn's platform and write it back into designated areas in SmartFarm for the field team to consume them.

Some of the other notable features that aided the client's seed production activities include:

- An offline mode that enables data collection even in the absence of Internet connectivity in remote locations.
- Multilingual support in 15+ regional languages, which simplifies the company's communication with users in countries where English is not their primary language.
- High levels of data encryption to provide security and preserve privacy.

IMPACT:

One of the most significant impacts the use of SmartFarm has brought about for the client is the increase in productivity. The users of the application agree that CropIn has provided a satisfactory experience on the whole. SmartFarm's simple UI and ease of access to its various functions and features has ensured user-friendliness and faster adoption of the agtech solution. Moreover, the multi-lingual support has enabled them to follow product guidelines and other information in a language of their comfort has resulted in a considerably shorter implementation period and a faster understanding of the digitisation process at the users' end.

By digitising processes that required manual were done manually and with excessive use of pen and paper, CropIn has been able to reduce the time and effort that goes into preparing and managing reports, in addition to driving the organisation's operations towards one that is eco-friendly and sustainable. Field staff, managers and other users of SmartFarm can now focus their effort into accomplishing tasks that are more critical to business and field operations. CropIn has also been able to significantly bring down the amount of data lost amidst all the paperwork.

As it can be observed, the combination of convenience and ease of use, along with a smart package of numerous practical yet unique features has resulted in the success of CropIn's partnership with the client. In the years to come, CropIn is set to scale up its operations and expand to other divisions of seed production, by leveraging its cutting-edge AI- and ML-based solutions for all-round progress of its operations.

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SmartFarm™

FARM
MANAGEMENT
SOLUTION



SmartRisk™

AGRI BUSINESS
INTELLIGENCE
SOLUTION



SmartWare™

PACKHOUSE
SOLUTION &
TRACEABILITY



SmartSales™

INPUT CHANNEL
MANAGEMENT
SOLUTION



AcreSquare™

A B2B FARMER
ENGAGEMENT
APPLICATION