



Eastern Enterprise worked with SmartFarming, an Agro startup, to develop an app that helps farmers maximize their yields and profits.



ABOUT SMARTFARMING

SmartFarming is an exciting new startup in the agriculture industry based based out of The Netherlands. The company was founded back in 2014 by two young agriculture research students Rob & Sven. Their backgrounds, experience and passion for bringing agriculture and technology together are the perfect foundation to serve B2B customers and their needs.

SmartFarming Tech in collaboration with Eastern Enterprise developed an Android-based app to help farmers improve farming production, deal with crop diseases, improve weather forecasting and improve farm incomes overall.

PROJECT CHALLENGE

SmartFarming believes that rather than enhancement digitalization is a necessary innovation in farming, which if correctly implemented could help farmers to deal with all the challenges they face. Moreover, the rich insights derived by the application could help farmers be more precise in their use of pesticides and fertilizers, thus mitigating environmental impact.

With Smart Farming, Rob and Sven sought to develop an application to help farmers improve production, deal with crop diseases, improve weather forecasting and improve farm incomes overall. The app would also guide farmers by notifying them on better techniques and best practices. Furthermore, the most challenging task our developers at Eastern Enterprise faced was implementing a spraying module which managed advice on how and when to spray crops based on weather forecasts obtained from OpenWeathermap API.







OUR SOLUTION



Just like any other living organism, crops too are susceptible to diseases and using the collective knowledge of farmers around The Netherlands would help prevent crop failure due to bad management or disease. After going through the client's requirements, Eastern Enterprise proposed a solution to develop an android app for cotton and potato with a CMS which would be used by the SmartFarming Team to guide farmers in India.

The app provides guidelines for the following farmer tasks:



Pre-sowing – provides suggestion on how to sow the seeds.



Daily advice – provides daily advice on what tasks should be carried out and when.



Irrigation – suggestions of when and how much irrigation is necessary.



Fertilization – advice on the amount of fertilizer to be applied on the farm.



Spraying – lets the farmer know when they need to spray.



Identification – lets the farmer know how the crop should look at each stage. The identification flow may vary based on the variety set in user profile.





TECHNOLOGY STACK

Eastern Enterprise proposed the following technologies to easily reach the requested functions







PHP 7.1











Optimized crop treatment such as accurate planting, watering, pesticide application and harvesting directly affects production rates.



Automating processes in planting, treatment and harvesting can reduce resource consumption, human error and overall cost.



Analyzing production quality and results in correlation to treatment can teach farmers to adjust processes to increase quality of the product.



Accurately tracking production rates per field over time allows for detailed prediction of future crop yield and the value of a farm

The client was extremely satisfied with the end-result and commended us on our approach. The app provides farmers an improved ability to identify important pests, diseases and nutrient deficiencies and manage them in order to safeguard crops and by extension, their livelihoods. The app further offers advice on remedies ranging from conventional control options to preventive measures.

By using the app for crop management, farmers are able to minimize external inputs and increase yields. The app supports farmers in producing a better quality yields and helps prevent their crops from being destroyed. In this way potato and cotton farming becomes more profitable. The app is now used by 5000+ users and it is still increasing day by day.





TESTIMONIAL



Rob van Oudheusden. Director Product & Technical / Co-founder, SmartFarming

We are experiencing the collaboration with Eastern Enterprise as very pleasant. We especially like the direct contact with the whole team, their flexibility and commitment. The team always thinks critically along with us to get to the best solution for our situation.

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