EARTH OBSERVING SYSTEM

The recent development in the practical use of satellite monitoring and machine learning technologies has transformed the food production industry around the world.

Farming of today is precision agriculture — eliminating guesswork, minimizing effort, reducing waste, cutting expenses, and maximizing productivity.

EOS Data Analytics has been working with input suppliers just long enough to understand exactly what it can do for them. A competitive sales strategy and strong, transparent relationships with the client and other things can be achieved through the application of the latest technologies.

In fact, we have assembled a product that combines the power of latest technologies with our expertise in agriculture to provide a strong link between the supplier of inputs and their user. This product is EOS Crop Monitoring — a digital satellite-driven platform with the functionality specifically calibrated to daily challenges of farming.

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EOS Crop Monitoring is a one-stop solution for building trusted relationships between input suppliers and their clients — farmers, insurers, traders, and more. It is the tool that can be used to:

- **Identify the type of crop growing on a particular field**
- **Create precise maps for variable-rate seed & fertilizer application**
- **Get a hyperlocal 14-day weather forecast**
- **Access historical vegetation and weather data on any given field**
- **Receive notifications and alerts**

and much more.

Field monitoring

✓ Regular monitoring of crop health based on the data retrieved from satellite imagery analyzed using remote sensing indices.

Vegetation indices

✓ Data on the state of vegetation according to different parameters calculated as ratios and expressed as numbers from -1 to 1. Different indices are available (NDVI, NDRE, MSAVI, ReCl) adjusted to different growth stages to get the most accurate information about the health of the crops. Custom indices are available too.

Water stress detection

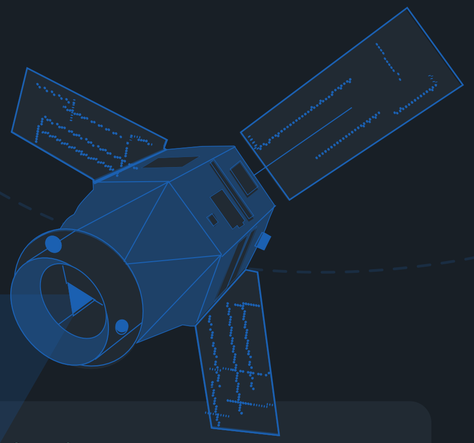
✓ Monitoring of water/moisture contents in the plants and the soil via satellite imagery analysis using a number of trained algorithms. Helps prevent harvest loss due to water stress.

Growth stages

✓ Visualization of growth stages for a specific crop on the graph according to the international BBCH-scale. Improve your field treatment decisions — reducing costs and increasing yields — based on the correlation of growth stages and various field and weather parameters (vegetation indices, temperature, precipitation, among others).

Crop rotation

✓ The record of crop rotation history, sowing and harvesting dates, as well as growth stages conveniently displayed in a box. It allows you to plan the future sowing operations, thus maintaining soil fertility and reducing risks of plant diseases and pest infestations.



Weather monitoring

✓ Access to key weather parameters, including clouds, temperature, and precipitation on a daily basis. Additionally, access to crucial historical hyperlocal weather data going back to 2008. A 14-day weather forecast will give you enough time to prepare for unfavourable weather conditions and keep your crops safe.

Field leaderboard

✓ An interactive tool for prioritizing fields that you own or tend according to how the crops are performing within them. The fields with the most negative vegetation index (NDVI) change will automatically be displayed at the top of the list. There are 7 other criteria according to which you can prioritize your fields and download the lists as a pdf or spreadsheets.

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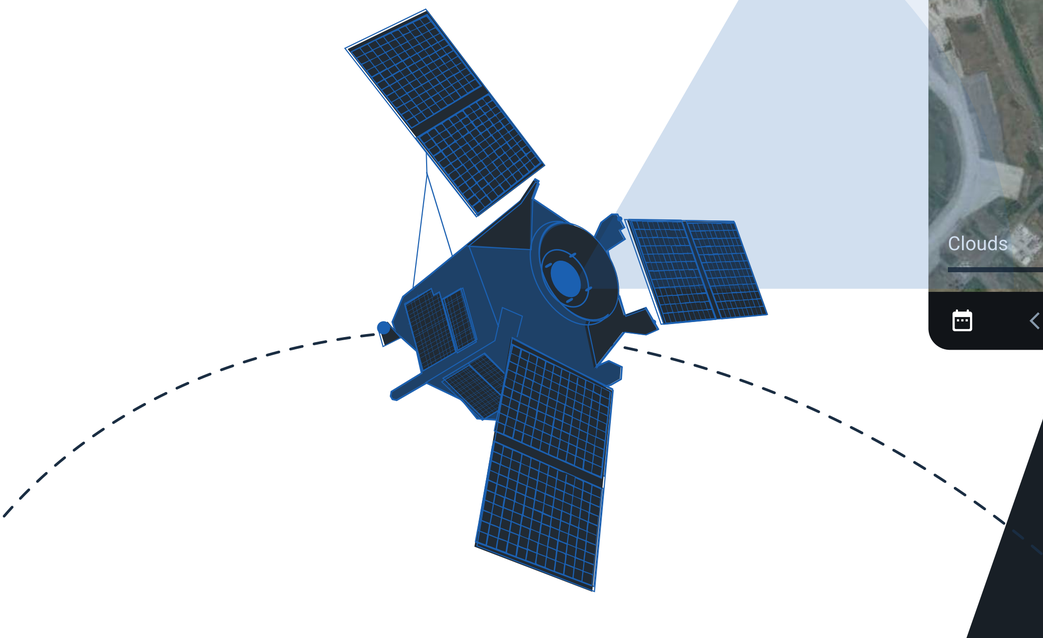
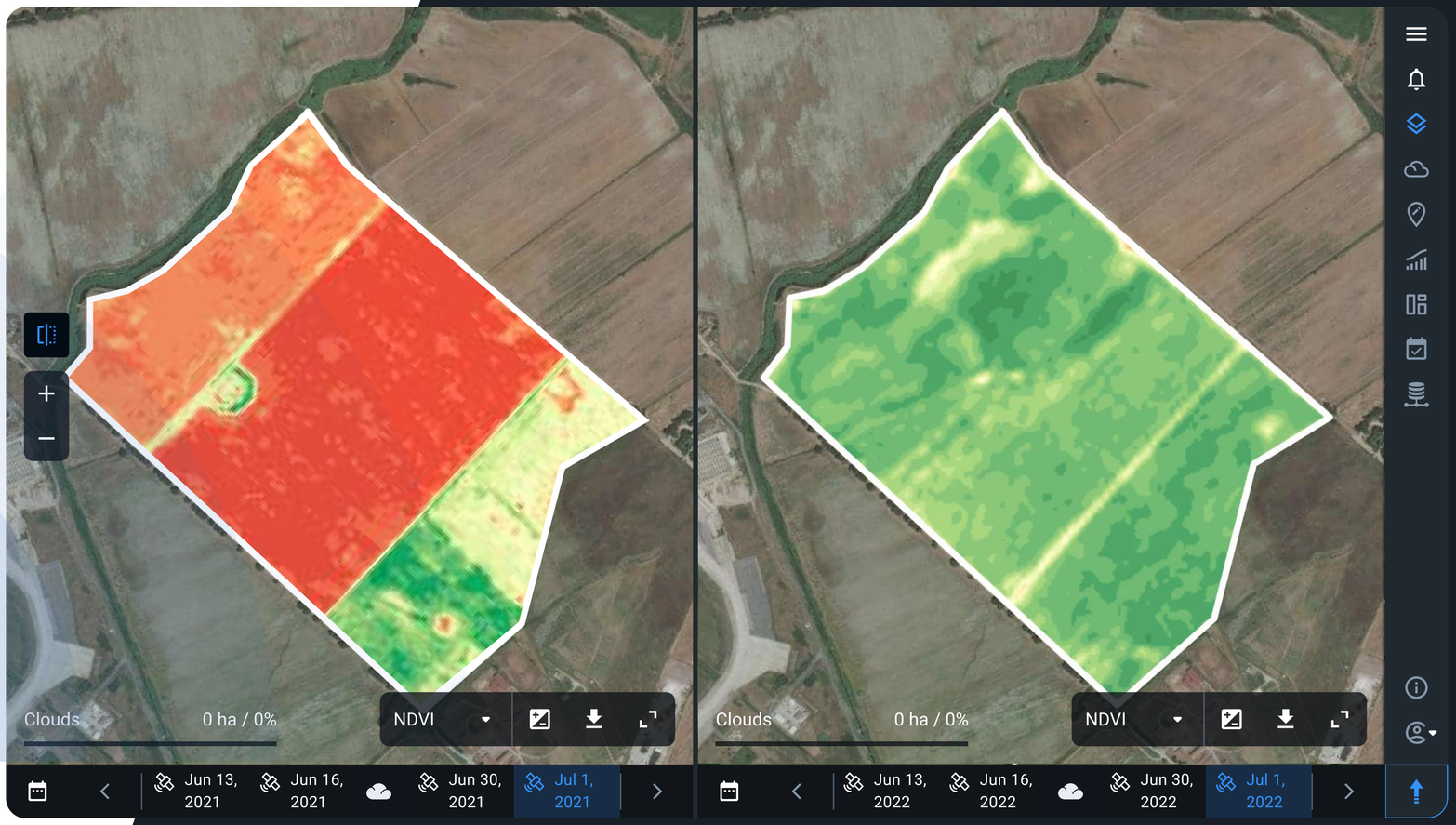
Split view

The functionality allows you to compare two images of the same field for different dates or containing different layers/indices. It is a great tool for monitoring the performance of different types of inputs





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Zoning

When it comes to input efficiency, an analysis of how different areas of the same field perform in terms of crop development is crucial. That's why we have developed the functionality of zoning. It consists of an ability to create vegetation and productivity maps that can be used for variable-rate application of seeds & fertilizers. This way you can make sure the crops will receive the required amount of fertilizers, boosting the productivity of the field.

Vegetation map

- ✓ A map for estimating the amount of nitrogen required by different areas of the field. It can be used for differential N fertilizing to reduce nitrogen waste and cut costs as well as strengthen the yield. The map is built based on the latest available satellite image and is very easy to use thanks to color schemes adjusted to index values.

Productivity map

- ✓ Productivity maps are designed to provide users with seed & fertilizer (potassium and phosphorous) variable rate application recommendations to increase the overall productivity of a crop growing on a particular field in the long term. Every map is created based on a series of satellite images of the crops and the NDVI index statistics available since 2019. You can manually select the period to estimate productivity of various areas within the field - ranging from a couple of days to several years.

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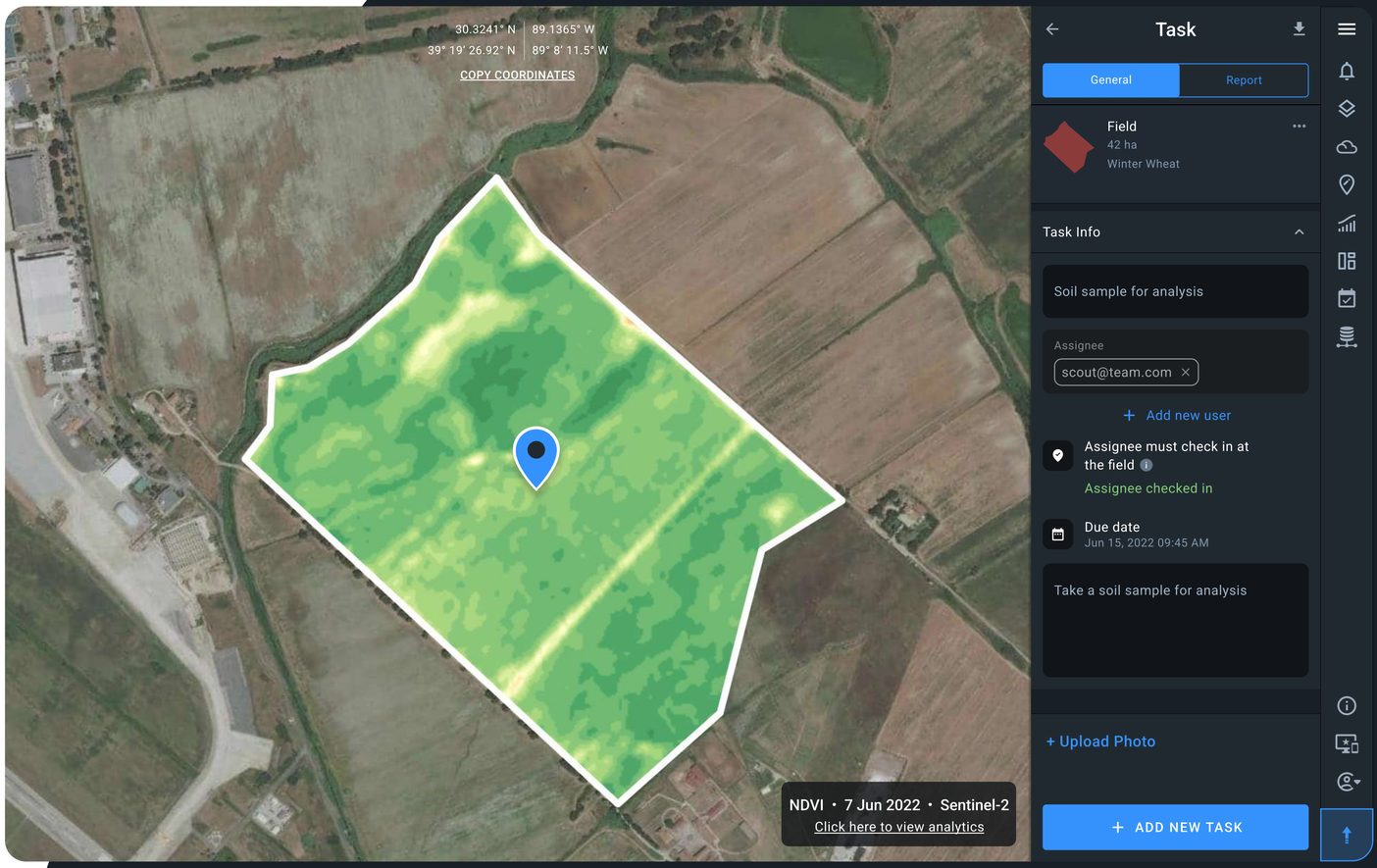
Scouting & Team Management

Crop Monitoring is not just a platform for making observations but combines a multitude of useful features for a better crop and farm management. Namely, we offer a scouting feauture that is basically a log and a GPS navigator for field scouts and owners and a team management feature — an improved control over scouts and other employees via a shared account.



Scouting

- ✓ We offer a scouting feauture that is basically a log and a GPS navigator for field scouts and owners. Pick a spot in the field, mark it, create a task, and send a scout — for owners. The Crop Monitoring mobile app will help the scouts do their job much easier and with higher precision, generate report on location that can be instantly shared with the owner via the shared account.

Team management

- ✓ The team management feature gives field owners a more transparent and effective control over scouts and other employees via a so-called “team account”.
- ✓ The team owner assigns different roles to other team members:
  Admin has access to the field and scout task editing feature, among other features, while the scout can add fields and create tasks, but cannot edit them.

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Benefits for Input Suppliers

- ✓ Get risk notifications and valuable data for sales representatives to manage market demand and increase sales
- ✓ Get historical data on fields' productivity to prove the product effectiveness (to show the difference before and after effect of application of their products to an end user)
- ✓ Avoid reclamations and facilitate the quality control with VRA and data manager
- ✓ Ability to track remotely state of the crop with high frequency of update
- ✓ Get exclusive market data at the global/county/region scales
- ✓ Enroll the reselling program to expand the portfolio and reach out to new markets
- ✓ Get historic and daily satellite images
- ✓ Real-time crop analysis
- ✓ Simple, easy to use interface

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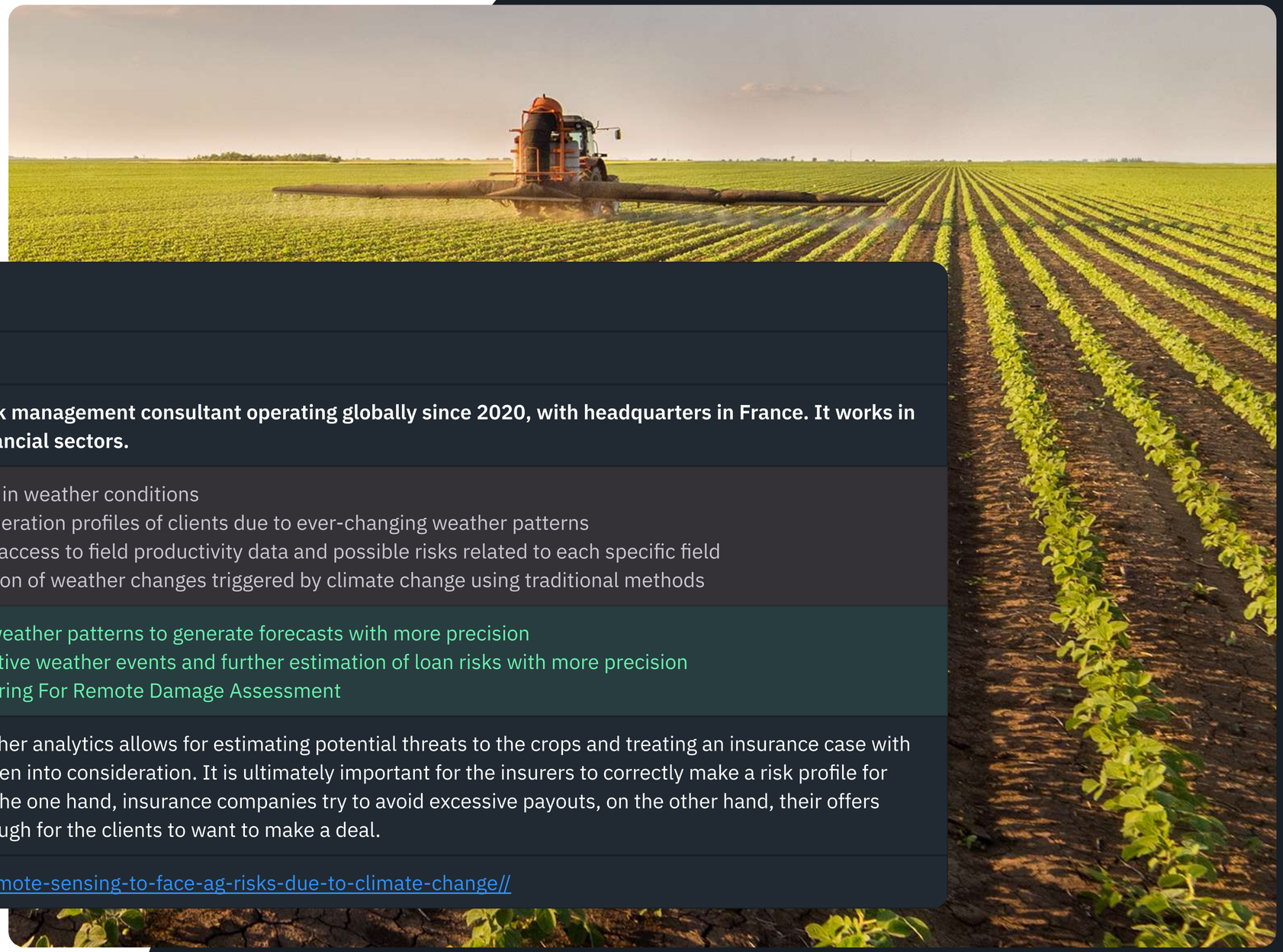
Cases



Name	**Wiingou**
Industry	**Consultancy**
What company does	**Wiingou is a climate risk management consultant operating globally since 2020, with headquarters in France. It works in the agricultural and financial sectors.**
⚠ Problems	• unfavorable changes in weather conditions • difficulties in risk generation profiles of clients due to ever-changing weather patterns • lack of resources for access to field productivity data and possible risks related to each specific field • difficulties in prediction of weather changes triggered by climate change using traditional methods
✓ Solutions	• access to historical weather patterns to generate forecasts with more precision • prediction of destructive weather events and further estimation of loan risks with more precision • ongoing Field Monitoring For Remote Damage Assessment
Outcome	Accurate historical weather analytics allows for estimating potential threats to the crops and treating an insurance case with all the available data taken into consideration. It is ultimately important for the insurers to correctly make a risk profile for adequate coverage. On the one hand, insurance companies try to avoid excessive payouts, on the other hand, their offers should be attractive enough for the clients to want to make a deal.
More detailed info	https://eos.com/blog/remote-sensing-to-face-ag-risks-due-to-climate-change//

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735 422 EOSDA products users globally

105,000+ current users of EOS Crop Monitoring worldwide

At least one registered user from every country of the world

32,000,000 hectares of fields to monitor have been already added by EOS Crop Monitoring clients

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Contact us and talk to our experts:

sales@eosda.com