

CropSupport – a new tool for crowdsourcing of agricultural field level data

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The LandSense Citizen Observatory aims to aggregate innovative EO technologies, mobile devices, community-based environmental monitoring, data collection, interpretation and information delivery systems to empower communities to monitor and report on their environment. The LandSense focuses on the domain of land cover/land use, both in rural and urban areas.



A FRESH PAIR OF EYES IN THE FIELD

WHAT IS CROPSUPPORT APPLICATION?

CropSupport application facilitates citizen engagement in crowdsourcing of agricultural field level data. The tool was developed within a European H2020 project – LandSense.

WHAT IS USED FOR?

The CropSupport tool is a web and mobile based application. It has designed for farmer community to collect data related to crop type and farm management. The CropSupport application offers several added value services to its users – such as NDVI maps, parcel-based weather forecast, change detection service, and a farm activity diary.

THE CROPSUPPORT MOB APPLICATION

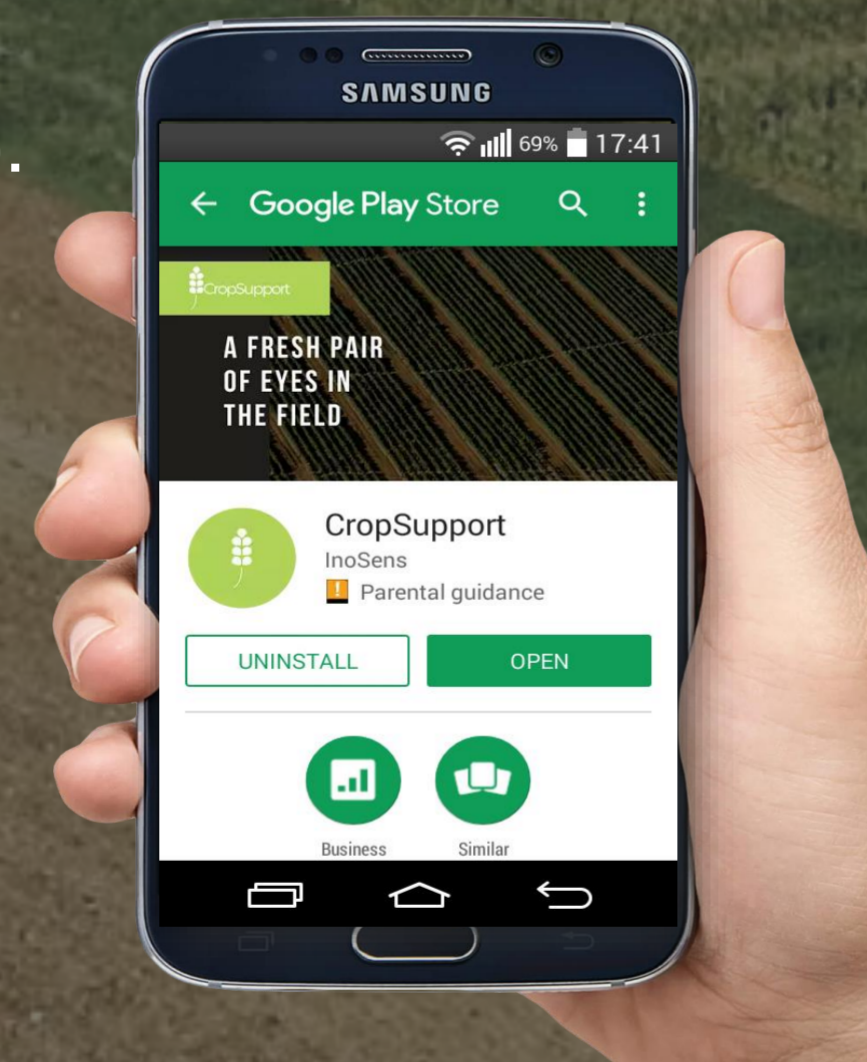
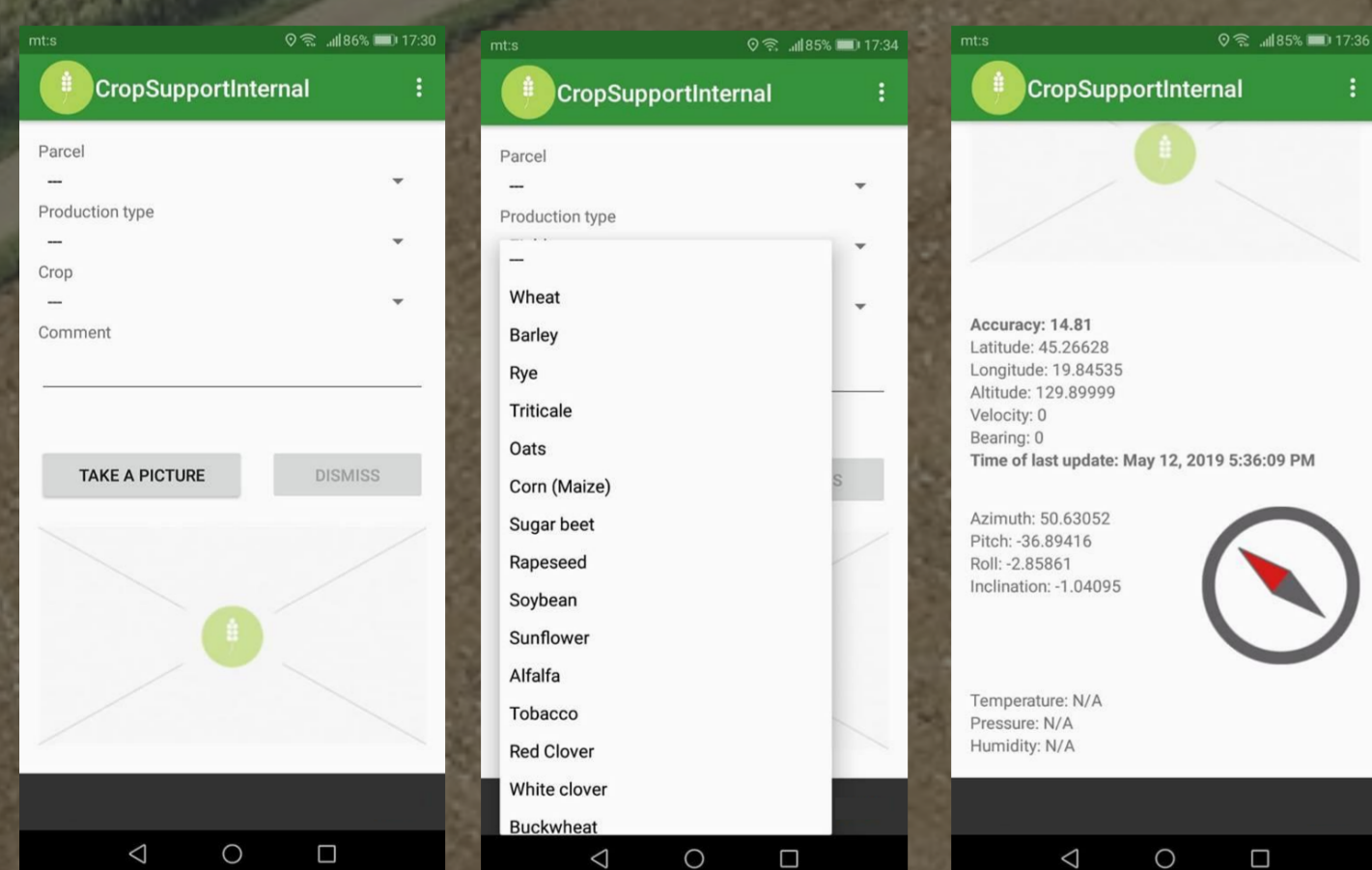
1) User can take photo of crop field



While, taking a photo of a parcel, a user must consider "accuracy" parameter which has to be below 20m. User does not need access to the internet in order to take a photo. Once the mobile device is connected to Internet, taken images will be automatically synchronized with the user web application.

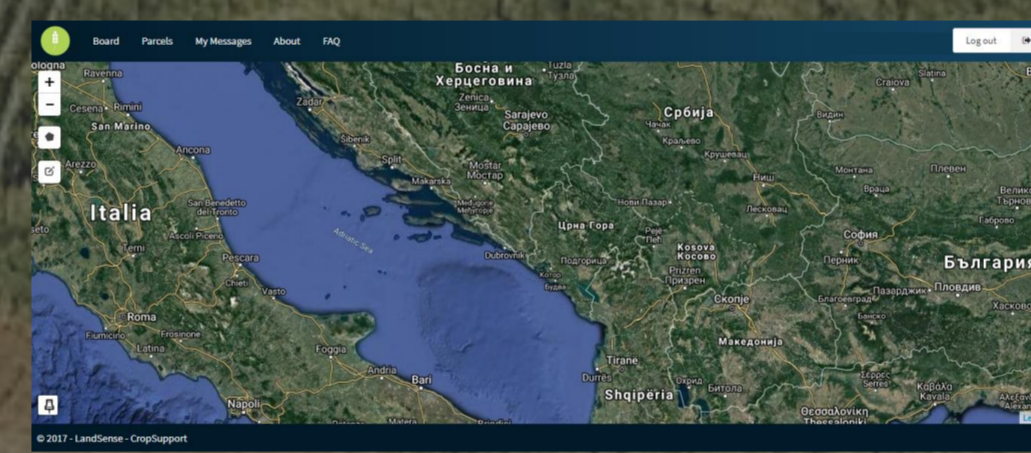


2) User can fill basic information about agricultural land use (crop name; crop type).

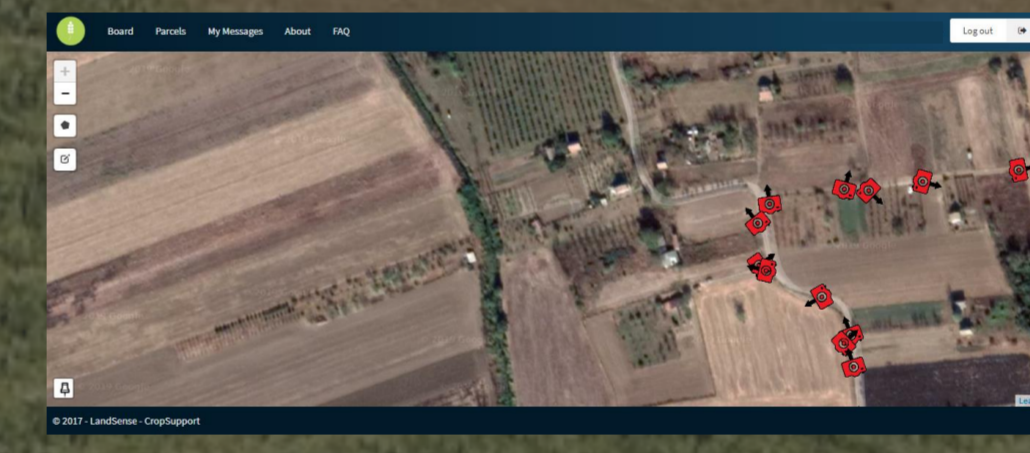


THE CROPSUPPORT WEB APPLICATION

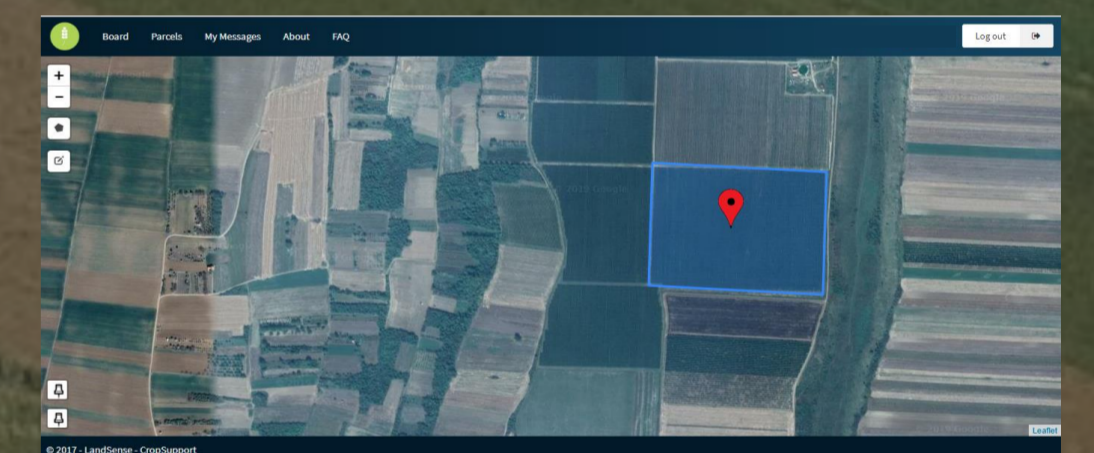
1) The main user interface provides access to several functions:



Base layer imagery from Google over which user draws field parcels

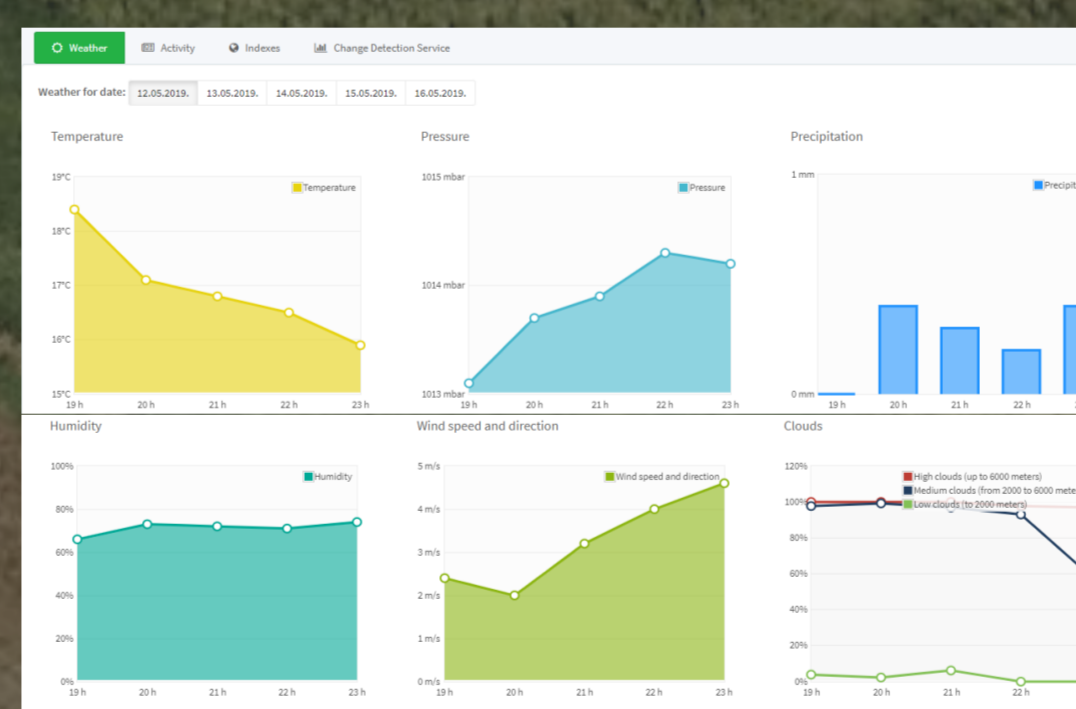


Indication and location of photos taken via mobile app



Possibility to outline the contours of the parcel

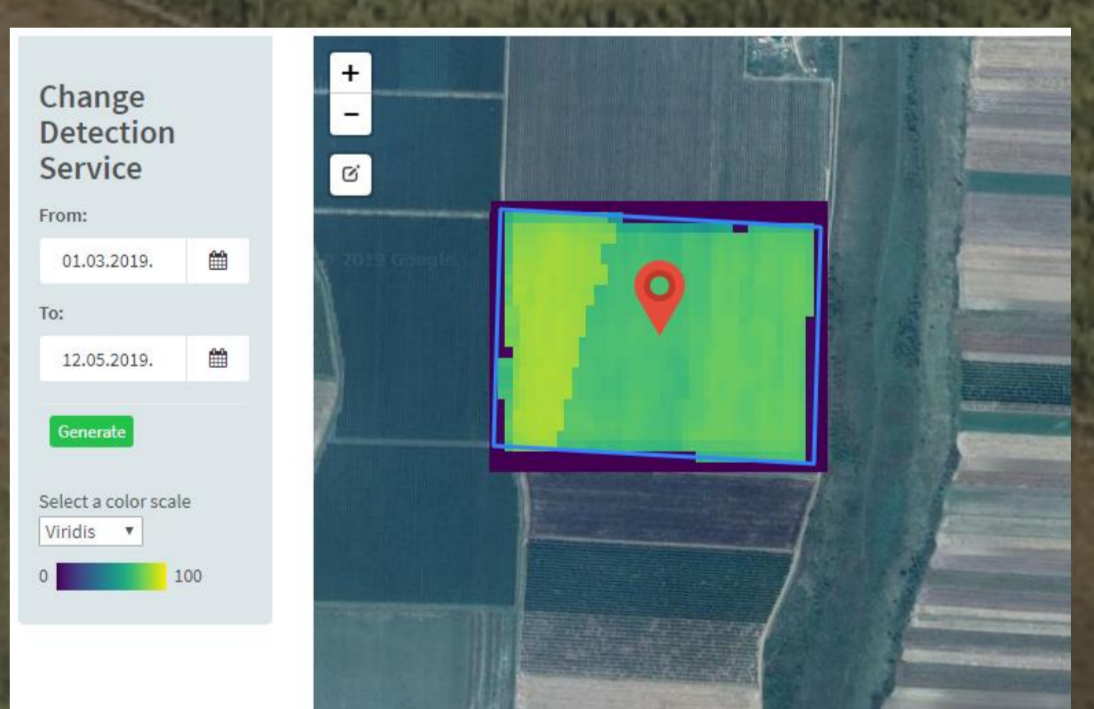
2) Added value services



Parcel-based weather forecast



NDVI maps



Change detection service

The CropSupport application had been tested and validated in operational environment between November 2017 and September 2018, when a group of 60 high school and university students were engaged into an agricultural crowdsourcing campaign. The preliminary results indicate that CropSupport application shows a promising potential for scalability and replicability to other geographical areas.

