





FOOD SECURITY USING ARTIFICIAL INTELLIGENCE AND REMOTE SENSING



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Project Objectives

Project objectives in the request are listed in the left column and the final state is presented in the right column.

Objective	State	
Develop an application based on spot satellite data and supplementary data to provide useful information for agricultural management needs.	Done minimally 	It is done minimally and can be extended a lot in the future
Benefit growers by offering valuable information about cultivated land to improve management decisions and reduce input usage.		As the project was demo, we still developed minimally

Project Objectives

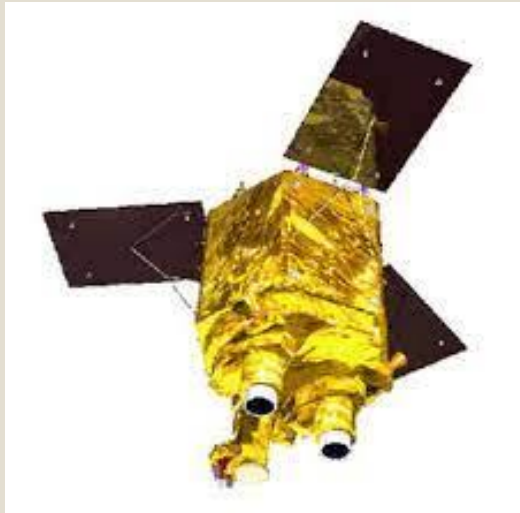
Objective	State	
Utilize remote sensing satellites and their data effectively to make a meaningful impact on the agriculture industry and food security.	Done minimally 	We did use satellite imagery but the meaningful impact is not seen yet.
Reduce scouting costs for advisers and consultants by having all customer data on one platform.		As the project was demo, we still developed minimally

Project Objectives

- The main achievement was that we successfully provide a system based on OGC services which backed complicated algorithms for generating useful product related agriculture using mid resolution satellite imagery.
- The product we offer is an elevation product. As it is know DTM can provide detailed topographic information about the field, allowing farmers to optimize their irrigation, fertilization, and pesticide application. This precision farming approach can lead to better resource management and increased crop yields. Which all were our goals in this project.

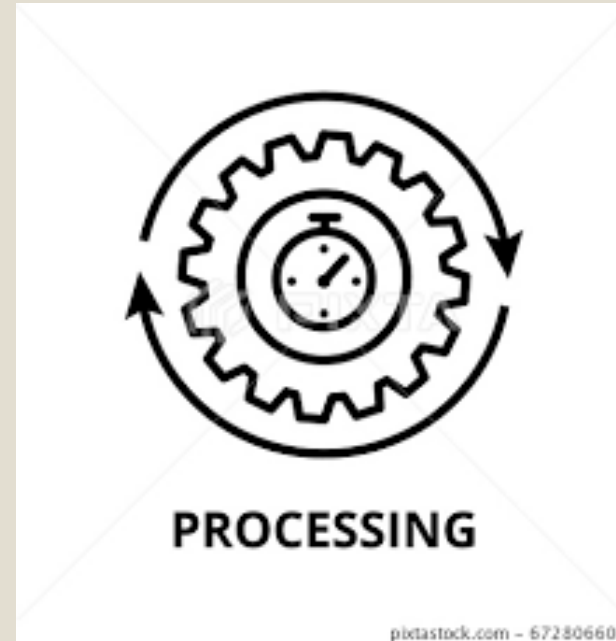
cloud environment usefulness (DATA)

- The advantage of preparing data from the cloud was evident. Through the Up42 platform, we had a seamless experience in ordering satellite imagery.



cloud environment usefulness (Processing machines)

- We easily processed a significant area using the platform's processing machines. Up42 offered remarkable flexibility, as it allowed us to package the algorithm as a docker image.



Benefits to others

- To be honest as we said in first slides, we have not still launched the product to market. But we think if our product be developed more and some other useful features be added to it, can be really useful for different roleplayers in the agriculture sector.

Product

Some images of the developed web GIS (OGC services are served from geoserver + openlayers + deep learning): farm is determined by a red arrow

Sign Up

Username:

Required. 150 characters or fewer. Letters, digits and @/./+/-/_ only.

Password:

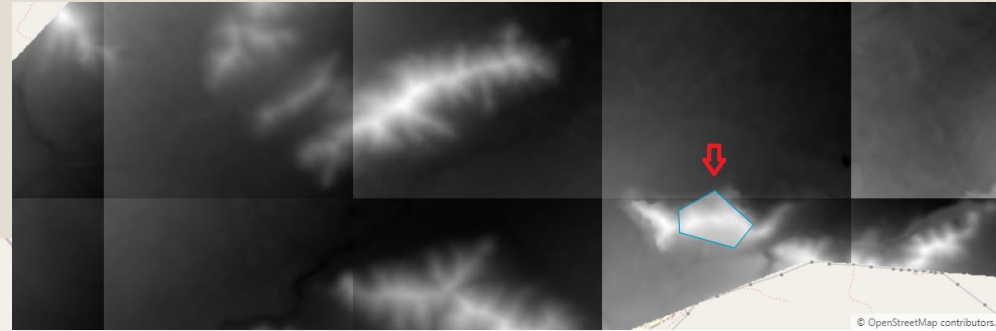
- Your password can't be too similar to your other personal information.
- Your password must contain at least 8 characters.
- Your password can't be a commonly used password.
- Your password can't be entirely numeric.

Password confirmation:

Enter the same password as before, for verification.

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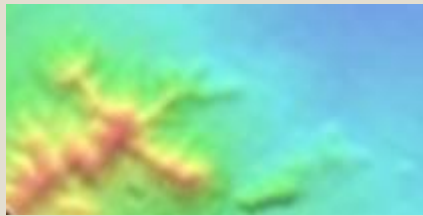
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Setelah menggambar, Anda dapat mengeditnya dengan menahan penunjuk di atas simpul tanah.

[Menambahkan tanah](#)

product

- User can select the region of the farm and then appropriate product will be loaded. Just as an example we provided Produced DTM for some cities (Deep learning) ...



Product

- Future features :
- 1-the DTM should be loaded for only the farm.
- 2-NDVI should be added also
- 3- weather information should be added
- 4 – DTM should be better visually