# Implementation of multi-scale agricultural indicators exploiting Sentinels



#### **Context:**

Copernicus is the European system for monitoring the Earth. The global component of the Copernicus Land Service continuously monitors the state and evolution of land territories to address a variety of applications such as forest and water management,

agriculture and food security, etc...

ImagineS contributes to the evolution of the Copernicus Global Land service by preparing, with R&D activities, the exploitation of PROBA-V and Sentinels sensors in an operational context.



## **Objectives:**

- 1. Supply the Copernicus Global Land service with qualified software able to process multi-sensor data over the globe to generate biophysical variables on a fully automatic basis.
- 2. Demonstrate the added value of an innovative agriculture service able to assess the vegetation above-ground biomass and to monitor the crop/fodder production together with the carbon and water fluxes, for a community of users acting at global, European, national and regional scales.











#### **Products:**

Name	EO sensor	Temporal resolution	Spatial resolution	Spatial coverage
LAI, FAPAR, FCover, Albedo	PROBA-V	10 days	333 m	Global
Above-ground biomass	N/A	10 days	16 km (8 km)	Global (Fr, Hu)
<b>Drought indicators</b>	N/A	10 days	16 km (8 km)	Global (Fr, Hu)
Carbon and water fluxes	N/A	10 days	16 km (8 km)	Global (Fr, Hu)
FAPAR per class	PROBA-V	10 days	333 m	<b>Demonstration sites</b>
FAPAR	PROBA-V, Landsat-8	10 days	30 m	<b>Demonstration sites</b>
Above-ground biomass	N/A	10 days	Local simulations	Demonstration sites
Crop map	Sentinel-1, Landsat-8, PROBA-V	Continuous update	30 m	South Africa, Russia (JECAM sites)

LAI, FAPAR, FCover from PROBA-V will be available early 2015 over Europe. The coverage will be extended step by step to the globe. Other products will be available from mid-2015.

## Impact:

By addressing the production issue, ImagineS contributes to improve the quality, reliability, accuracy, timeliness and comparability of information on agricultural market to deal with food price volatility.

## Partnership:











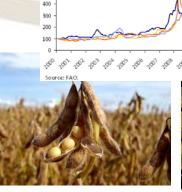














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