



Centro de Informações Galileo/Brasil

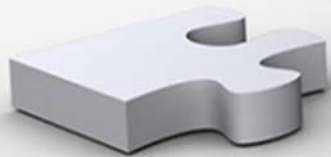


EGNSS for agriculture





- Applications for agro:
 - Precision agriculture
 - Agri-logistics
 - “Farming by satellite” contest



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EGNSS for agriculture

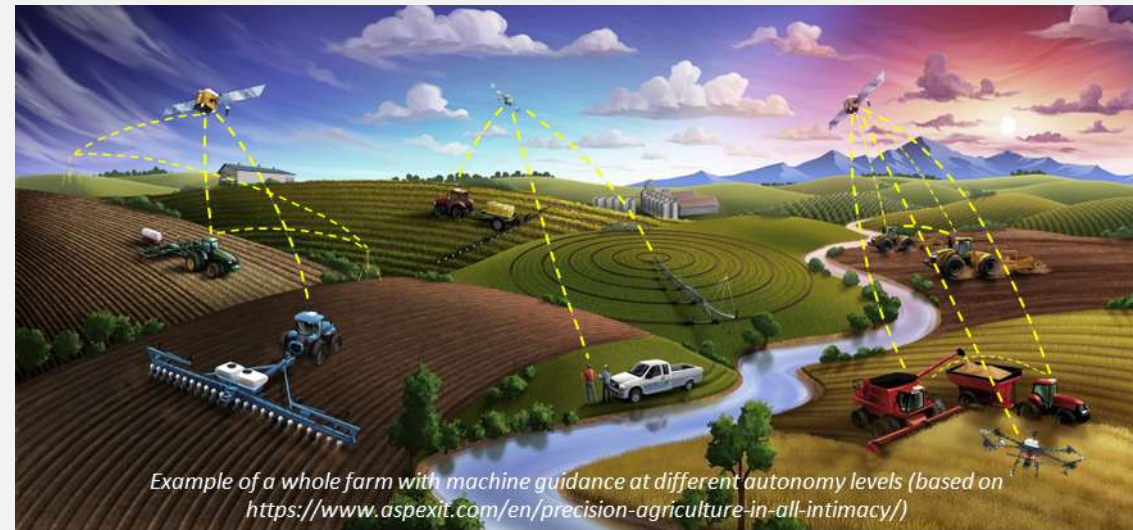




Precision agriculture

Precision agriculture is the application of different technologies and solutions to manage the variability of agricultural production, in order to improve crop yield and reduce environmental impact

- Farm machinery guidance
- Automatic steering
- Variable rate application
- Yield monitoring
- Biomass monitoring
- Soil condition monitoring
- Precision viticulture
- Precision forestry





Agri-logistics



Agri-logistic applications help farmers to increase efficiency and to comply with number of regulations and new standards

- Cattle management
- Farm machinery monitoring and asset management.
- Geo-traceability
- Field definition
- Geo-tagged photos



Common Agricultural Policy (Europe) (2022-2029)





Different requirements for the different applications

	Operations		Monitoring	Other applications
Applications	Farm Machinery Guidance	Automatic Steering, Variable Rate Application	Harvest/Yield Monitoring, Biomass Monitoring, Soil Sampling	Livestock Tracking, Virtual Fencing, Geo-traceability, Machinery Monitoring, Field Boundary Measurements
Key GNSS requirements ¹	Accuracy (decimetre-level) Availability Continuity	Accuracy (centimetre-level) Availability Continuity	Accuracy (centimetre-level) Availability	Accuracy (centimetre-level) Availability Authentication
Other requirements	Connectivity	Connectivity Interoperability	Connectivity Interoperability	Connectivity Interoperability Traceability

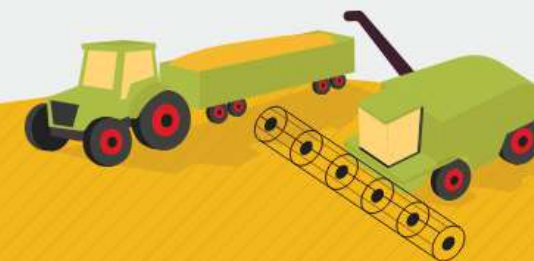


Farming by satellite contest



<http://www.farmingbysatellite.eu/>

How can we use Satellite Technologies to improve Agriculture and reduce Environmental Impact?



THE
WINNERS

TAKE
PART

PRESS

FAQ

RULES

APPLY
NOW

Every 2 years

No nationality
condition

an European
coordinator

Max 4 team
members

Ages 18<>32



European Environment Agency



CLM4S

Copernicus

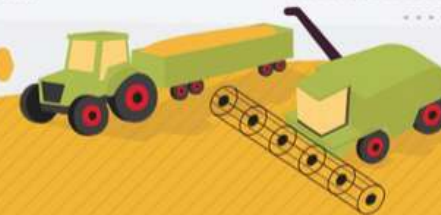


EGNOS

FARMING BY SATELLITE PRIZE

MENU

2020 Winners



First prize: Graniot - Spain



Second prize: Genuine - Italy



Third prize: AI4OceanFarming - France/Morocco/Spain



Special Africa Prize: GeoM&E - Kenya/Italy



One third of the water used in Europe goes to the agricultural sector. In Spain, that number rises to almost 80% and a part of it is wasted and/or contaminated by inefficient fertilising practices. Graniot offers a web application for agronomists and farmers to conduct weekly crop monitoring by using European satellite technologies to focus on vigour, chlorophyll, and water stress. With a background in telecommunications engineering, the co-founders are on a mission to bring a more sustainable agriculture to Southern Europe.

Genuine is a unique web application to support farmers with identifying the crop borders, crop stress, and to guide tractor paths for optimal fertilization and irrigation. The solution combines Copernicus Sentinel-2 data and Galileo signals to generate prescription maps and to improve farmers' activities in the field. The team aims to provide an integrated Copernicus and EGNSS solution that accelerates the transition to sustainable agriculture.

This solution studies the feasibility of establishing a space-connected ocean farming system. AI4OceanFarming identifies ocean farming threats to mitigate losses and increase the success rate and performance of this farm sector. This analysis is done by merging satellite data from Copernicus together with GNSS, Mercator Ocean, ECMWF, in-situ data from IoT devices deployed on the field, and their own specialised databases. The team hopes to optimise the performance of ocean farming, increasing food security and minimising the overexploitation of ocean resources.

GeoM&E offers farmers the opportunity to assess differences in agriculture fields over time and location, and enables users to assess vegetation phenology such as planting and harvesting. It specifically looks at the assessment of coffee farms in central Kenya, indicating the changes over time and areas where farmers could increase yield. The GeoM&E would provide African farmers with access to the geoinformation in just one click.



Thank you!