



## COMUNICADO DE PRENSA

Última oportunidad para inscribirse en el premio Farming by Satellite dotado con 13.000 €.

Estudiantes y jóvenes agricultores de Europa y África tienen menos de un mes para inscribirse en esta importante competición sobre cómo el uso de la tecnología de navegación por satélite en la agricultura puede mejorar la producción, la eficiencia y reducir el impacto ambiental. Los organizadores informan de que hasta el momento 11 países ya están representados y ¡quieren más! Premios totales en efectivo de 13.000 € se ofrecen en el Premio de "Farming by Satellite" para las mejores historias de éxito o nuevas ideas presentadas antes del 14 de abril de 2014. Pero como primer paso, todos los participantes deberán registrar sus datos en la página web del premio: [www.farmingbysatellite.eu](http://www.farmingbysatellite.eu) Para animar a más personas a registrarse, los organizadores han ampliado el plazo de inscripción hasta el 28 de febrero de 2014. Los equipos seleccionados serán invitados a presentar sus ideas en Praga en junio de 2014, y los ganadores serán presentados en el International Space Solutions Conference que tendrá lugar allí.

El premio es una iniciativa de la Agencia Europea de GNSS (GSA), la agencia de la UE responsable de las actividades europeas de navegación por satélite, y está patrocinado por CLAAS, fabricante líder de equipos de ingeniería agrícola, y los expertos fitosanitarios de Bayer CropScience.

El objetivo del concurso es promover el uso de la navegación por satélite en la agricultura y dar a conocer los beneficios a los usuarios finales. Los participantes deben ser menores de 32 años y pueden participar de manera individual o en un equipo. Pueden presentar estudios de ensayos, o nuevas ideas e innovaciones, en particular aquellas basadas en el sistema de Navegación Europeo Geoestacionario (EGNOS), el nuevo sistema GALILEO y COPERNICUS (Programa Europeo de Observación de la Tierra).

Gian- Gherardo Calini, Director de Desarrollo de Mercado de la GSA, dice: "Estamos buscando soluciones imaginativas que empleen la tecnología "gratuita" de satélite, que puedan ayudar a todos los agricultores del mundo. Esperamos ideas tanto de equipos profesionales como de estudiantes de agricultura, horticultura y ciencias de la vida. Esta es una fantástica oportunidad para los jóvenes de obtener una gran repercusión de sus ideas con empresas y académicos de primer orden."

Ends. 28 January 2014

**Notes to editors:**

Now in its 2nd year, this competition for students and young people across Europe has been extended to include African nationals and ideas or success stories relating to Africa, as well as Europe. The competition ran for the first time in 2012-13 and received 114 registrations teams/individuals from 25 countries around Europe. There were 32 final submissions from 17 countries around Europe.

**This year at least 10 shortlisted teams will be invited (all-expenses paid) to the GSA Headquarters in Prague, Czech Republic to present their ideas or stories to an expert judging panel. This will be a high-profile event, with an award ceremony taking place at a special reception during the Space Solutions Conference the following day.**

**The GSA has contracted UK consultancy Helios to manage the Farming by Satellite prize. For further information about the prize please contact Andrea King or Laurette Royer from Helios on 01252 451 651 or email: [info@farmingbysatellite.eu](mailto:info@farmingbysatellite.eu).**

#### **About the GSA:**

The GSA, a European Union agency, works with the European Commission on a range of market development activities aimed at helping European entrepreneurs and businesses commercially exploit EGNOS and Galileo. Such promotional activities will ensure that European industry maintains a competitive edge in the global satellite navigation marketplace.

For further information about the GSA contact: [marie.menard@gsa.europa.eu](mailto:marie.menard@gsa.europa.eu)

#### **About the Prize**

The competition will promote the use of GNSS in agriculture and its benefits to end-users. Entries must therefore clearly demonstrate how the use of GNSS is either a) already realising significant benefits to users or b) could enable new innovative services in the near future.

Particular attention should be paid to the additional value offered by EGNOS in providing a free-to-air higher accuracy augmentation to Global Positioning System (GPS) and the new European Galileo satellite service starting in 2014. Note also that EGNOS extended eastwards towards Central Europe during 2012. Galileo will provide global coverage.

#### **Types of entry**

Entries may take any of the following forms:

1. EITHER success stories of the application of GNSS and precision agriculture OR new ideas and innovations in different countries and land use types. Both types of entries are equally valid. These could include one or more of the following:

- Precision agriculture including application of seeds, fertilizers, fungicides, herbicides, insecticides, including variable rate technology, and irrigation, planting, tillage, harvesting, and the use of automatic guidance systems.
- Soil, vegetation, disease and yield mapping, (mobile) data collection, analysis and application in real time and historical.
- Traceability of products including crops and livestock, from field to fork for food safety and disease control by farmers, food companies, standards certification bodies, government agencies and safety authorities.

- Environmental management including ecological impact assessment and management by stakeholders including farmers, scientists, engineers and government agencies.

2. Technical proposals for equipment/software/systems applied to different crops/farm types including forestry and fisheries. You can propose the novel application of existing systems or a new product or products, describing their production, use and potential results. The technical proposal can target one specific issue or can be broadly targeting crop improvement or even farm improvement showing interaction between multiple services/equipment.

3. Applications for small producers and/or cooperative groups. This approach would involve simplified applications of GNSS and precision agriculture to farm situations with limited size and resources.

4. Wide area application of GNSS in agriculture, forestry, fisheries and the environment. This approach would involve mapping exercises using a geographic information system (GIS) – ArcView or open source software. Using country data, the report would show where the technology can be applied to different land uses and predict changes in production and market supply, together with changing revenue and incomes. Data can be obtained from FAOSTAT and other sources.

Entries must be submitted in electronic format. All entries must include an abstract (150-200 words) and a full description (between 3,000 and 10,000 words) written in MS Word or Open Office Writer. All entries must be presented in English and in the case of video supporting material with English subtitles. The full description can be supported by:

- A short video (maximum 5 min.) demonstrating the idea and incorporating: dialogue and/or field footage and/or computer screen recording (in .MP4 or .FLV format); or
- An MS PowerPoint or Open Office Impress slideshow; or
- A computer spreadsheet (using MS Excel or Open Office Calc).

The entry must be supported by references and justification for values used. Entries must be submitted by **14 April 2014**.

All entries must include a form of presentation suitable for the prize awarding event. Shortlisted entries will be expected to present their ideas using an MS PowerPoint or Open Office Impress slideshow, prior to the final decisions from the judges.

Some examples of entries received for the 2012 Prize included:

- Integrated Farm Management Data and Information System
- Mobile Sample Collector
- Virtual Pastures
- Zero Draught and Scatter Robotic Seed Establishment
- Total Field Management Programme
- Vitismart: Digital Maps for limited-size vineyards
- Agroplanning: Integrated Precision Farming
- Advanced GPS guidance
- Accurate monitoring of the machinery movement
- Active sprayer boom levelling
- A satellite aided bale collection system

## **Who is eligible?**

The competition is open to all students and young people below the age of 32 studying or resident in any of the following countries: Albania, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Latvia, Lichtenstein, Lithuania, Luxembourg, Malta, Moldova, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Additionally, entries from African countries (either independent or with partners from the above countries) will now be accepted. A special prize will be awarded to ideas or applications relating to farming by satellite in African regions.

Individual or team entries are welcomed. A team may comprise up to 4 people.

## **About EGNOS and precision farming:**

EGNOS is essentially Europe's 'pre-Galileo' system, its first concrete venture into satellite navigation. EGNOS delivers services based on GPS and GLONASS signals, providing augmentation signals re-transmitted by geostationary satellites and a network of ground stations.

EGNOS represents a European solution for the Satellite-Based Augmentation System (SBAS). There are also other SBAS systems in the world, e.g. Wide Area Augmentation System (WAAS) in the USA. EGNOS augments the two satellite navigation systems now operating, the US GPS and Russian GLONASS systems. Crucially for agriculture, EGNOS also increases the accuracy of existing satellite positioning services to about one metre or better.

Precision agriculture refers to the use of satellite navigation sensors, aerial images, and other tools to determine optimum sowing density, fertiliser cover and other inputs. It also refers to the use of GNSS for supporting machine guidance, virtual fencing, and land parcel identification. These techniques allow farmers to save money, reduce their impact on the environment and increase their productivity. EGNOS can offer an affordable precision solution.

EGNOS can support:

- Variable ploughing, seeding and spraying – Variable Rate Technology (VRT)
- Tractor guidance
- Individual livestock positioning
- Virtual fencing
- Land parcel identification and geo-traceability
- Post-harvest pick-up
- Supervised livestock tracking

- Field measurement
- Field boundary mapping and updating

EGNOS will help to:

- Enhance precision
- Eliminate waste and over-application of fertilisers and herbicides
- Save time
- Reduce fatigue
- Extend equipment lifetime by optimising its use
- Provide geo-traceability
- Optimise crop yields
- Increase profit margins

### **About Galileo**

Galileo is a satellite system currently being built by the EU aiming to be the single European GNSS. Up to now, GNSS users in Europe have had no alternative other than to use American GPS or Russian GLONASS satellite signals. Yet the military operators of these systems can give no guarantee to maintain uninterrupted service.

Meanwhile, satellite positioning has already become the standard and essential tool for navigating and related applications. As the use of satellite navigation spreads, the implications of signal failure increase, jeopardising not only the efficient running of transport systems, but also human safety.

By being interoperable with GPS, Galileo aspires to be a new cornerstone of GNSS. This worldwide system will henceforth be under civilian control. And with its full complement of satellites, more than the current GNSS systems, Galileo will allow positions to be determined accurately even in high-rise cities, where buildings obscure signals from today's satellites.

Galileo will also offer several signal enhancements making the signal more easy to track and acquire and more resistant against interference and reflections.

By placing satellites in orbits at a greater inclination to the equatorial plane, Galileo will also achieve better coverage at high latitudes, making it particularly suitable for operation over northern Europe, an area not well covered by current GPS signals.

### **About Copernicus (formerly known as GMES)**

The European Earth Observation programme (formerly known as Global Monitoring for Environment and Security or GMES) is an initiative led by the EU. The coordination and management of the Copernicus programme is ensured by the European Commission. The setting up of initial versions of the Copernicus services have been assigned to several projects partly financed through the 7th

Research & Development Framework Programme of the EU, while the developments related to the observation infrastructure are performed under the aegis of the European Space Agency for the space component (i.e. Sentinel missions) and of the European Environment Agency and the Member States for the in situ component. The sustainability of Copernicus operational services will be ensured through public funding from the EU, intergovernmental agencies, and Member States. These services should be accessible to any organisation or citizen.

Copernicus consists of a complex set of systems which collects data from multiple sources (Earth observation satellites and in situ sensors such as ground stations, airborne and sea-borne sensors), processes these data and provides users with reliable and up-to-date information. Some of these systems and data sources already exist today, as well as prototype services, but many developments are still required in all domains.

Policymakers and public authorities - the major future users of Copernicus - will use the information to prepare environmental legislation and policies with a particular focus on climate change, monitor their implementation and assess their effects. Copernicus also supports the critical decisions that need to be made quickly during emergencies, such as when natural or man-made catastrophes and humanitarian crises occur.

Users will be (and to a certain extent are already) provided with information through services dedicated to a systematic monitoring and forecasting of the state of the Earth's subsystems. The following six thematic areas are developed:

- Land monitoring
- Marine monitoring
- Atmosphere monitoring
- Emergency management
- Security
- Climate change

Based on Copernicus services, many value-added services tailored to more specific public or commercial needs (i.e. forecasting services with a local scope, services including socio-economic data, etc.) will certainly be developed.