

*Title:* EGNOS and GALILEO for Agriculture and CAP

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*Body text:*

The European GNSS Agency (GSA), on behalf of the European Commission, manages Europe's GNSS programmes: EGNOS (European Geostationary Navigation Overlay Service) and Galileo.

Europe's GNSS programmes bring multiple benefits to the agriculture community. Already today EGNOS is increasingly used for GNSS-based solutions in agriculture by providing free accuracy over Europe for applications where meter accuracy is adequate. Typical examples include guidance and automatic steering, wide range of precision agriculture applications, on-the-spot checks and area measurements within CAP. Most of the GNSS receivers used for agriculture are now EGNOS enabled and the EGNOS signal is free of charge.

Following the Initial Services Declaration in December 2016, Galileo has been declared operational and the agriculture community can already benefit from multi-constellation features. Galileo brings farmers advantages such as easier mitigation of multi-path errors, better availability, continuity, reliability, improved geometry and better results in harsh environments such as under tree canopy. Along the Galileo, multi-frequency Open Signal (E1, E5, E6) will offer higher precision than the single frequency applications. Galileo Commercial Service High Accuracy (CS-HA) will disseminate PPP corrections across the globe directly via the Galileo satellites on E6 channel. This will allow the development of many precision solutions with no investment in additional ground infrastructure. Additionally, users can also benefit from Galileo CS Authentication service: this will be a Signal-in-Space based method to assure that the positioning is based on real Galileo-signals and not any other source (spoofing and meaconing detection).