

## Central Pivot Irrigation supported by EGNOS

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Credits: Trigger Systems

[Trigger Systems](#) is a Portuguese start-up founded in 2017. They design the software and manufacture the hardware to automate weather-based precision predictive irrigation. One of its uniquenesses is the virtual sensor probes, relieving costs with infrastructure, while improving accuracy and feedback to its intelligent controller. The technology can save farmers and managers of green spaces a minimum of 20% of water plus related operating costs such as energy and labour.

Trigger Systems have been analysing the EGNOS benefits in their applications for several years and finally, last summer they started to commercialize a solution using EGNOS. Particularly they manufacture a switchboard to automate central irrigation pivots that are equipped with EGNOS. As explained by João Doroana, Software Developer at Trigger Systems: "Our first GPS solution had RTK precision, having excellent precision. However it was very expensive, because of that we tried different approaches. The best option that we found was GPS and SBAS/EGNOS enabled". They are satisfied with the accuracy provided by EGNOS because "it typically provides submetric accuracy, making a lower cost GPS solution available to our clients".

One of the advantages mentioned by Mr. Doroana is that "It is easy to configure our GPS module. EGNOS is configured in the GPS device of the pivot and in our devices EGNOS is simply a checkbox. After that checkbox we can change some more complex configurations, but for now the basic configuration is good enough".

Therefore, they sell their circular pivots with EGNOS already configured so that the user can benefit from a precision increased at no cost at all in their agricultural fields. The performances provided by EGNOS satisfy Trigger Systems and their users; as confirmed by the fact that this product has had a good reception among its clients that immediately detected the added value without extra cost. As explained by a manager of several agricultural farms: "Now that I have upgraded to the GPS version the pivot never misses a spot!".

In the future, Trigger Systems will continue investigating new products to benefit from EGNOS.