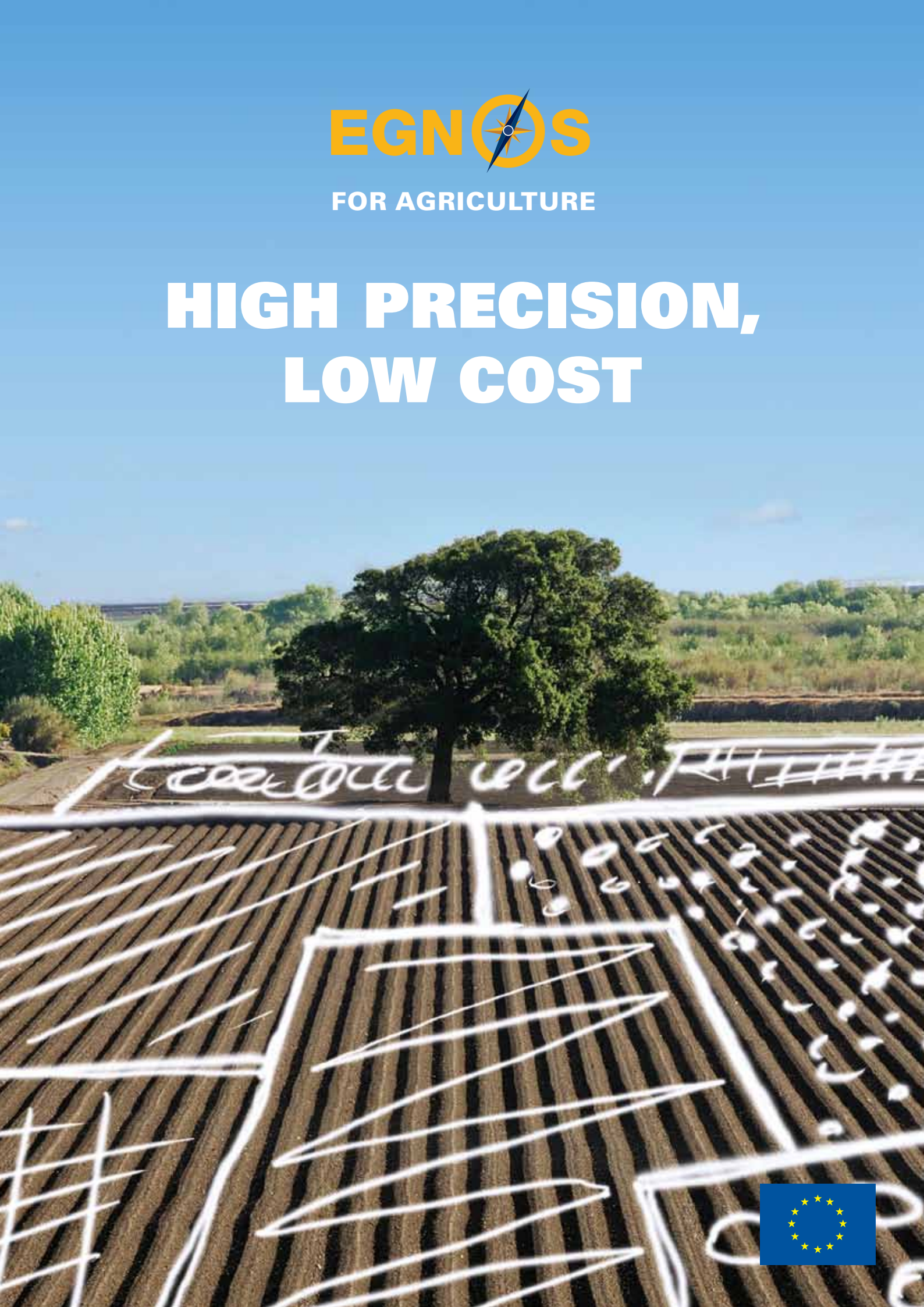
EGNOS

FOR AGRICULTURE

HIGH PRECISION, LOW COST



EGNOS
and precision agriculture

Precision agriculture is a highly effective farming strategy that increases yield and productivity, while lowering costs and minimising environmental impact.

With costs perpetually on the rise and environmental demands gaining ground by the day, efficient and sustainable farming solutions are needed more than ever.

Traditionally, the barrier to precision agriculture has been a substantial equipment investment and costly ongoing subscriptions.

Now EGNOS, the European Geostationary Overlay Service, can change this equation by offering an affordable precision solution.

EGNOS
can support:

- Variable ploughing, seeding and spraying
- 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:

- 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

Why **EGNOS**?

1/ EGNOS is the **best available option** for a wide range of precision agriculture applications:

APPLICATION CATEGORY	APPLICATION FIELD	REQUIRED ACCURACY LEVEL
Arable	High-value crop cultivation (e.g. potatoes and vegetables) or precision operations (sowing and transplanting)	c. 2cm
	Low-value crop cultivation (e.g. cereals) and low-accuracy operations (fertilising and reaping)	c. 1m
Dairy	Individual livestock positioning and virtual fencing	2-5m
Agro-logisitic	Land parcel identification / geo-traceability, post harvest pick-up and supervised tracking of livestock, manure, etc.	c 2.5m
Legislation/ management	Field measurement and boundary mapping and updating	c 2.5m

EGNOS
application domain

2/ EGNOS is **absolutely free**; it does not require installation of hardware on farms, nor ongoing subscriptions.

3/ EGNOS signals are received in **real time** thanks to its three geostationary satellites.

4/ EGNOS is set to become the **leading Global Navigation Satellite System (GNSS) solution** for precision agriculture in Europe over the next few years.

5/ EGNOS is **widely available**. 1 in 10 tractors sold in Europe today are equipped with GNSS receivers. Most of these receivers are EGNOS-enabled.

6/ EGNOS does not need an additional long-wave device to receive correction data; signals are **integrated** into all EGNOS-enabled receivers.

How does **EGNOS** work?

EGNOS, the European Geostationary Navigation Overlay Service, improves the accuracy of position measurements by sending out signals that correct GPS data and provide information on its reliability.

The EGNOS network includes more than 30 reference stations in 20 countries.

Ranging and Integrity Monitoring Stations (RIMS) on the ground pick up signals from GPS satellites, which are processed in Master Control Centres (MCC). The accuracy of the original signals is determined and confounding factors, such as electrical disturbances in the atmosphere, are corrected.

These data are incorporated into EGNOS signals and sent to its three geostationary satellites.

The satellites then relay the signals back to users on the ground, thus providing far greater positioning accuracy than would be achieved through GPS alone.

Available now

EGNOS is Europe's first venture into the field of GNSS and a precursor to Galileo, Europe's global satellite navigation system currently under development.

EGNOS is an open system, which is now operational and available for use.

EGNOS

EGNOS, it's there. Use it.

For more information, please visit:
www.gsa.europa.eu

GSA