HxGN AgrOn Platform

An integrated platform for intelligent management of agricultural and forestry operations.
Hexagon developed the HxGN AgrOn platform using the most advanced information technologies applied to the entire agricultural and forestry production process for planning, automation, monitoring and management of field operations: from soil preparation to crop treatments, through planning and operationalisation of planting and harvesting, and support and logistics operations.

Smart Digital Reality in the field

Reasons to choose Hexagon as your partner in your Digital Transformation

**End-to-end solution:**
We are the only supplier in the market that has a complete solution that covers everything from optimised long-term planning to the automation of operations in the field through onboard controllers in a synchronised way to reduce time lost in activities.

**Experience in agricultural and forest market:**
Our team has more than 20 years of experience in the market. We speak the same language of the field and know both the problems and the solutions, developing the best and most efficient strategies to solve them.

**Hexagon Expertise:**
We have at our disposal all the technologies developed by Hexagon, a global leader in sensors, software and autonomous solutions, allowing us to bring to the agricultural and forestry sectors the cutting-edge innovations in the areas of geopositioning, mapping, automation, embedded electronics, artificial intelligence and systems integration.

Scan the QR Code and access the AgrOn platform video or click here.
Optimisation of integrated processes

Our goal is always to anticipate and solve problems that may occur in the productive activities of your company. That is why we have structured the HxGN AgrOn platform aiming the application of the PDCA Cycle of continuous quality improvement, covering all the activities of planning, execution, control and analysis. As such, we guarantee the complete integration of our solution, without losing the modularity of each product, so that we can offer an optimised management of the entire agricultural and forestry process according to the needs of each customer.
Benefits

Learn how the HxGN AgrOn platform can help your company’s Digital Transformation.

Synchronises and connects operations
Transporting raw materials from the field to industry is one of the most critical phases of agricultural and forestry operations, with many logistics risks involved - risks that can compromise the volume, quality and economics of production. Having tractors, harvesters and trucks connected and in sync is essential to minimise the damage that may be caused in the transportation and logistics of raw materials.

Reduces waste of raw material
Developed to minimise all potential losses that may occur in the field, acting mainly in the planning and synchronisation of operations, bringing predictability in the flow of raw materials from the field to the industry, and in the allocation of machines and inputs.

Maintains profitability as costs increase
Efficiency in the allocation of resources through the automation of machines and implements, and the use of inputs such as seeds, seedlings and stems, water, fertilisers, chemicals and fuels. All this while avoiding waste and maintaining profitability.

Reduces machine downtime
Maximising the efficiency, performance and productivity of agricultural machinery, transport trucks and support vehicles through interconnectivity and synchronisation of operations and deviation alerts.

More profitability for your Business*

ROI

- 5% increase in the use of the planting area
- Speed 4 weeks in the harvest season
- 15% reduction in fertilisation deviations
- 10% savings in fuel usage
- 25% reduction in harvesting and transportation machines
- Prevention of 17% of expenses in cultivation operations
- Optimisation of 15% of support fleets
- 10% savings in fuel usage

* the values may vary according to the work precision, maturity and efficiency of the current production.
Planning & Optimisation

Allows planning in short, medium, and long term; and optimise agricultural and forestry processes, generating better dimensioning of investments, cost control of preparation, planting, harvesting and transportation operations; and better achievement of production goals.

Learn what it is possible to do with Planning & Optimisation products:

- Agility in the simulation of different scenarios
- Analysis of bottlenecks and capacity conflicts
- Monitoring, and re-planning throughout the year
- Optimisation of the return on production
- Reduction of expenses with fuels and support fleets
- Better quality of production and harvest
- Greater profitability
- Intelligent management of resources and inputs
- Better raw material
AgrOn Expansion Planning
Optimisation system that takes account of the total cultivation area.

AgrOn Plant Planning
Allocation system for ideal planting.

AgrOn Operation Planning
Optimisation system of resources for operations in the field.

AgrOn Logistics Support Planning
Coordination system for the production support resources.

AgrOn Harvest Planning
System that plans and optimises the harvest schedule.

Modules:
AgrOn Harvest Planning | Logistic Sync
AgrOn Harvest Planning | Straw Management

AgrOn Transport Optimisation
Synchronised system for transport and cutting operations in the field.

AgrOn Service Order Management
System that performs the planning of agricultural and forestry operations through service orders.
Monitoring

Generate reports of operating times, productivity indexes, and yields of each machine in the field, guaranteeing complete and accurate traceability, from the origin of the raw material to the processing industry.

Learn what it is possible to do with Monitoring products:

- Remote and real-time monitoring of all activities performed by machines
- Productivity indexes, and yields of each machine in the field
- Synchronisation of all agricultural and forestry operations
- Intelligent management of agricultural and forestry operations
- Generates reports of operating times
- Quick and immediate action is possible
AgrOn Control Room
Centralised control system that monitors in real-time the harvesting and transportation operations performed in the field.

Modules:
- AgrOn Control Room | Cultivation
- AgrOn Control Room | Soil Preparation
- AgrOn Control Room | Planting
- AgrOn Control Room | Harvesting
- AgrOn Control Room | Mobile

Scan the QR Code and watch the video or click here.

AgrOn Raw Material Traceability
System of automated raw material tracing from the origin all the way to delivery in the industry.

Scan the QR Code and watch the video or click here.
Machine Control

Acting with precision agriculture, the solution allows better alignment of machines with GPS, ensuring the accuracy of the tractors and implements passes, improving the performance of machines and cultivation, harvesting, and transportation operations.

Learn what it is possible to do with Machine Control products:

- Helps the operator to perform his tasks accurately
- Better use of work areas and intelligent use of resources and inputs
- Provides a high-quality operation
- Reduces damaged seeds, seedlings and/or blanks
- Decreases planting failures
- Management of the productive times of the machines
- Less equipment working at the same time in the field

AgrOn ISOBUS Display
Standardized connection between display, electronic systems, implements and machines.

Module: Remote Access

Scan the QR Code and watch the video or click here.

AgrOn Auto Steering
Automated precision navigation system for tractor, machinery and agricultural and forestry equipment.

Module: Remote Access

Scan the QR Code and watch the video or click here.

AgrOn ISOBUS Display
Automated control system for spray sections during application.

Module: Remote Access

Scan the QR Code and watch the video or click here.
AgrOn Fertilisation Control
Automated control system for fertiliser and limestone applications.
Module: Remote Access

Scan the QR Code and watch the video or click here.

AgrOn Planting Monitor
Monitoring system for spacing of seed and sugarcane billets.
Module: Remote Access

AgrOn Bait Control
Automated system that controls the application of the formicidal bait during.
Module: Remote Access

Scan the QR Code and watch the video or click here.

AgrOn Planting Control
Automated planter control system leveraged during agricultural operations.
Module: Remote Access

Scan the QR Code and watch the video or click here.

AgrOn Haul-Out Dynamic Allocation
Synchronised system for allocation of haul-out transporter and the cutting pace of harvesters.
Module: Remote Access

Scan the QR Code and watch the video or click here.

AgrOn Machine Monitoring
Information management system for machines and fleets in the field.
Module: Remote Access

Scan the QR Code and watch the video or click here.

AgrOn Planting Assistant
Excavator operator assistance system for forestry planting.
Module: Remote Access

Scan the QR Code and watch the video or click here.
AgrOn Seedling Marker
System that uses georeferencing to generate maps of seedlings and pits for forestry operation.
Module:
Remote Access

AgrOn Subsoiling Control
Subsoiling depth monitoring system.
Module:
Remote Access
Analysis & Management

Technology and innovation to make intelligent analysis and assertive management of field operations, used in activities after the execution of activities in the field, aiming to assess whether the result was positive or negative, generate reports and views with aggregated/consolidated data and compare the planned with the accomplished.

Learn what it is possible to do with Analysis & Management products:

- Corrective action for uncalibrated machines
- Reports with graphical data visualisation, and filtering and grouping resources
- Better performance, and reducing input costs

- Generates quality indicators
- Integration with Cloud Platforms and BI Tools
- It is possible to ideally plan the trajectory of maneuvers

- Monitors what has been planned and what is being executed
- Open for configuring scripts and rules for transforming data
- Connectivity with mobile devices and embedded software

- Development and implementation of new reports at run time, without the need for coding
AgrOn Operational Management
Analytical management of forestry and agricultural operations.

Scan the QR Code and watch the video or click here.

AgrOn Data Integration
Middleware that allows you to configure and deploy connection interfaces for different data sources.

AgrOn BI
Service for configuring dashboards, reports and data extraction customised according to customer needs.
Ti5, Ti7 and Ti10 Displays

Unit of software, sensors and actuators used to monitor and automate agricultural operations.

Understand the differences between our displays below, and discover the best option for your operation:

Ti5 Display
This model is available in a 5” screen with IP65 and is indicated for simpler operations, such as spreading limestone in a distributor. In Ti5 Display it is possible to include AgrOn Electric Auto Steering, AgrOn Guidance and just another product to choose from.

Ti7 Display
This model is available in a 7” screen with IP64 and optional mobile communication items such as Wi-Fi and/or 4G. The Ti7 Display is ideal for operations that require high precision in the execution or when you want to have the combination of two or more activities at the same time since it is possible to include all the precision agriculture resources in a single equipment.

Ti10 Display
Developed with disruptive technologies and high processing capacity, Ti10 enables greater connectivity between field operations. With a friendly and easy to use interface, it is ideal for any type of operation and conditions of use. Ti10 has a 10” screen and accepts all the features of precision agriculture in a single device.

Farming Accuracy

- GNSS L1 10Hz - GPS with EGNOS/WAAS 2,0 m (absolute)
- GNSS L1 20Hz - GPS with EGNOS/WAAS 15-20cm (pass to pass, 15min)
- GNSS L1/L2 20Hz - GPS/Glonass 10cm (pass to pass, 15min)
- GNSSL1/L2/Lband 20Hz - GPS/Glonass/TerraStar 2,5cm (absolute)
- GNSSL1/L2/Lband 20Hz - GPS/Glonass/RTK 2 cm (absolute)

Operation Mode

- A-B Line
- A+Heading
- Parallel A-B Curve
- Adaptative Curve
- Pivot
Hexagon is a global leader in digital reality solutions, combining sensor, software and autonomous technologies. We are putting data to work to boost efficiency, productivity, and quality across industrial, manufacturing, infrastructure, safety, and Mobility applications.

Hexagon’s Agriculture division provides technologies that convert data into intelligent information that enables smart planning, efficient execution, precise machine controls and automated workflows that optimise operations and increase profits.

Our technologies are shaping production and people-related ecosystems to become increasingly connected and autonomous – ensuring a scalable, sustainable future.

Hexagon (Nasdaq Stockholm: HEXA B) has approximately 24,000 employees in 50 countries and net sales of approximately 5.2 bi EUR.

Learn more at hexagon.com and follow us @HexagonAB.

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