



AUTOMATIC GUIDANCE FOR ROW CROPS, VINEYARDS, AND ORCHARDS



System Line





**AI transforms the tractor from a simple executor
to an intelligent collaborator**

AI
plugged

***On-board artificial intelligence
makes the tractor:***

Precise

Automatic guidance day and night between rows, without GPS or sensors

Efficient

Recognizes the implements in use and optimizes operations

Safe

Detects people, obstacles, and prevents errors

Connected

Transmits data on productivity, movements, stops, timings, and fuel consumption

Learning

Optimizes operations, detects symptoms and plant diseases

Up-to-date

Remotely and automatically updated

Collaborative

Compensates for distractions, limitations, and inexperience of operators



The digital evolution of agriculture

Innovation

The system captures images from a camera and, thanks to Artificial Intelligence and Neural Network algorithms, digitally reconstructs the environment in which the machine operates. The guidelines are reconstructed virtually and allow the vehicle to be driven automatically without operator intervention, with maximum precision and consistency over time. The VLN system combines simplicity with the best and most advanced technology available on the market today.

Benefits

Simplicity | No GPS antennas or complex and expensive RTK correction systems are required to enable navigation within the narrow lanes of vineyards/orchards; the system is designed to be operated intuitively and with maximum simplicity.

Technology | The VLN automatic guidance system automatically keeps the vehicle in the centre of vineyard and orchard rows at any speed, allowing you to choose whether to proceed linearly in the centre of the row or at a distance that can be set from the right or left edge of the row, depending on the operation to be performed.

Reliability | The most advanced and innovative digital technologies are used to ensure a simple and reliable architecture.

Efficiency | The operator is relieved of the task of driving the vehicle and can manage operations in the field with maximum efficiency and safety.

Safety | Designed to perform at the highest level, any type of obstacle is recognised thanks to computer vision technology and the operator is immediately alerted.

Flexibility | Any vehicle can be equipped: the system is designed to be installed on all vehicles in circulation, regardless of age.

Savings | Thanks to automatic steering, field operations can be managed efficiently and optimally. Waste is avoided, saving resources and time. At the same time, crop quality is improved.

Scalability | Possibility of implementing Artificial Intelligence functions for vegetation recognition: vegetative vigour, fruit counting, water requirements, diseases, variable rate.

What we offer you to take this opportunity

- **VLN KIT to be installed on vineyard/orchard tractors; an evolution of assisted manual steering, whereby steering actions are performed automatically thanks to actuation systems installed on board the machine.**
- **Interface for managing Isobus equipment with Variable Rate mode.**
- **Full COBO INTOUCH AGRI connectivity with access credentials for remote monitoring of vehicle activities, statistics, tracking and mapping of activities in the rows.**
- **Dedicated installation services directly at your premises.**
- **VLN technology enables the paradigm of Agriculture 4.0 and precision farming.**

AI means greater automation, precision, efficiency in manufacturing and safety at work.

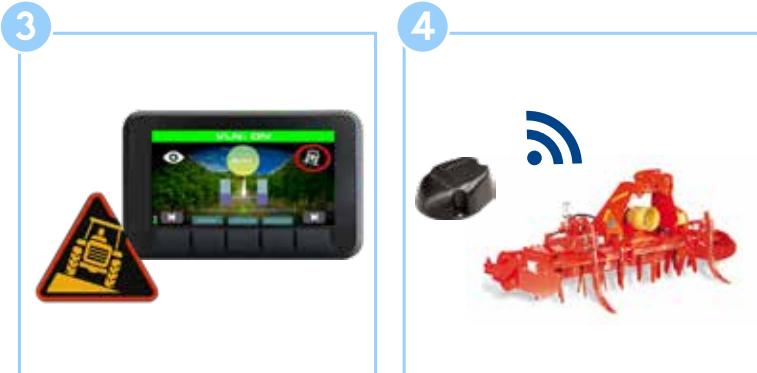
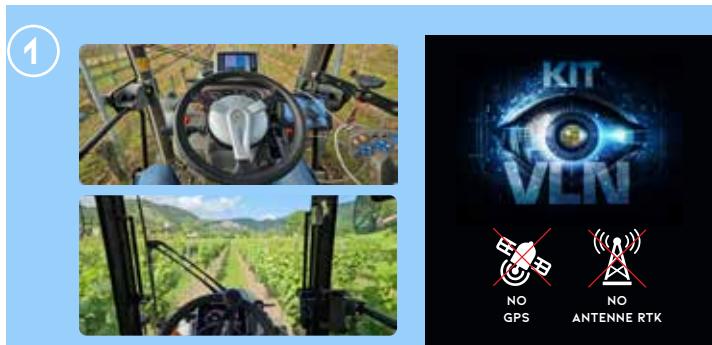
Regenerating the soil's natural resources rather than depleting them means striving to create a more balanced, resilient and sustainable agricultural system, committing to restoring its health by learning from the wisdom of the past, working more efficiently, safely and precisely from now on and every day to ensure crop quantity and quality without, however, taking a toll on the environment.

The VLN (Visual Lane Navigation) system brings artificial intelligence (AI) on board all existing vehicles (without having to wait and necessarily invest in new mechanisation) to enable them to operate more accurately, efficiently and safely right away.

VLN is based on AI, Computer Vision and Neural Networks. Unlike satellite signals, images are always available in any place, position, season and condition. This translates into the use of simple devices that are inexpensive to purchase and non-invasive to install, capable of giving the tractor the ability to "see" where it is working, "learn to recognise" the various vineyards and tools used one by one, and "be connected" to transmit and receive data and continuous updates. VLN does not require the placement of sensors on the tractor, GPS receivers, satellite signals, or ground antennas. Therefore, it does not interfere with the tools in any position. It does not contribute to generating additional electromagnetic pollution (electrosmog/radiation accumulation in the environment).

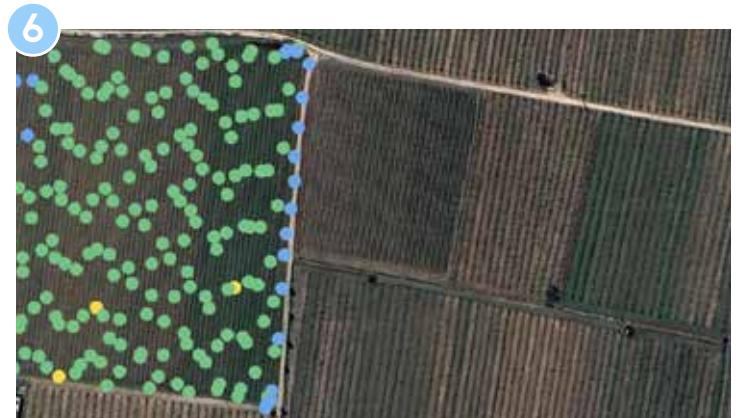
The VLN kit can be installed on any tractor model and brand to provide the following features:

- 1 **Precise and safe automatic guidance** during the day, at night and in both directions of travel; within rows, it allows you to select the central position or with OFFSET to the left or right, depending on the work being carried out.
- 2 **Object Detection** automatically alerts the operator to the presence of people, animals and obstacles in the rows being worked on.
- 3 **Tilt Alert** warns the operator in advance of the risk of overturning caused by the combination of speed and unevenness or slope of the row.
- 4 **Recognition of the tools used** to automatically select the most efficient, precise driving and control mode for each tool, as preferred and desired by the operator.



- 5 **Continuous connection and traceability** of vehicles at work, hour meter for each tool to manage their maintenance.
- 6 **Automatic data collection**: working hours, fuel consumption for each vineyard and equipment used.
- 7 **Remote assistance and updates** to provide ongoing support and improvement after installation.

In summary: making tractors “smart” allows each tractor to become more efficient and safer, increasing its functionality, operability and value over time.



Winner of the “Good Practices”
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“Health and safety at work in the digital age”



“New Technology” award
at Enovitis 2025





Notes



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