



DeVines

How to optimize vine-growing
practices to face the challenges
of tomorrow ?

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◦ The Fusion of Tradition and Precision Viticulture ◦

DeVines is the brand developed by 3D Aerospace. 3D Aerospace is an innovative tech start-up established in Toulouse (France). Its three core competencies are related to the design and manufacturing of its GNSS connected receiver (eHermes), big data and high definition 3D maps.

DeVines faces several challenges: conception of enhanced maps for smart viticulture applications and development of high-tech GNSS receiver able to provide real-time decimetric position. DeVines enables a continuous tracking of the growth of the vineyard's grapes, the detection of vineyard anomalies as well as a leaner vineyard management system.

eHermes receiver

which can be retrofitted on any types of tractors, is at the heart of the DeVines ecosystem.

Taking advantage of Galileo and GPS signals, eHermes receiver can provide decimetric position while mapping the vineyard thanks to its 7 cameras. The receiver transmits wirelessly the collected data to the database and the mobile application.

Database

collection of spatial data from "Copernicus" satellites and terrestrial data from eHermes receivers.

The database is the link between the receivers and the mobile application.

Mobile application

acts as a relay between the data of the DeVines ecosystem and its users.

The eMAPs High Definition maps are generated in the database and is available through the application to allow users to precisely geolocate anomalies.

Satellites

transmit earth observation pictures to the database (Copernicus) while the Galileo & GPS satellites are used to geolocate the eHermes receivers.



DeVines, a solution to challenges of today and tomorrow



Economic challenges

linked to operating performance.

Several parameters have a direct impact on the vineyard growth. From one vineyard row to another, significant disparity can be observed in the veraison. Currently, random manual pick-ups of grapes are performed to assess the maturity of the grapes of the overall vineyard.



Environmental challenges

linked to climate change.

The global warming has and will have a profound impact on the vineyard management. Water shortage, emergence of new type of diseases or warmer temperature will have a qualitative and quantitative impact on the grapes' quality.



Vineyard maintenance challenges

related to remote employee management.

By walking regularly in the vineyard, the employees detect valuable observation of the current health of the vineyard. Nonetheless, the reporting of the detected anomalies in terms of its type and its precise localization is often difficult to track and share among the vineyard employees.

We support you in your activity



Plan the day

by allocating tasks to employees on a daily, weekly or monthly basis depending on your needs.



Stay connected

while being mobile. The app's notification system allows users to communicate with each other.



Monitor activities

of your material resources equipped with a real-time eHermes receiver.



Analyze the development

of the health of your vineyard by checking the continuous data collected by the smartphone applications and the eHermes receivers.



Let's team up, let's build the solution of tomorrow together.

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