

## VVINNER

### Vineyard Vigilant & INNovative Ecological Rover

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#### INFORMATION ON THE ECO-INNOVATIVE SOLUTION PROVIDER

This eco-innovative solution is the output from the project titled "Vineyard Vigilant & INNovative Ecological Rover I" co-funded by the European Commission within the framework of the Competitive and Innovation Program. This solution has been developed by a team coordinated by VITIROVER, France, in partnership with TELESPAZIO (F, IT), Université de Bordeaux Labri (F), CNRS-IMS (F) and Balthazar Ress (D).

#### SHORT DESCRIPTION OF THE ECO-INNOVATIVE SOLUTION

The innovation consists of a mower-robot to eliminate weed killers and a sensor-robot to manage the health of the vineyard. The VITIROVER robot is a solar powered all-land mower, which mows grass in vineyards effectively. One of the main advantages is that the VITIROVER works very close to the vine stocks, cutting the grass at distances of less than 2 cm, but never damages or cuts them. With this sensor-robot and its Expert System, wine growers will have more chance to detect risks or problems early enough to be in a position to mitigate them in a natural way. The anticipated threats can be handled on an individual vine stock basis, thereby avoiding the implementation of systematic and highly concentrated pesticide-based curative processes across the whole vineyard.

#### INDUSTRIAL SECTOR – MARKET SEGMENT AND ACTUAL APPLICATION IN INDUSTRY

01 Agricultural Production - Crops

#### INDUSTRIAL CLASSIFICATION - NACE CODE;

28 Manufacture of machinery and equipment n.e.c.

## 1. DESCRIPTION OF ECO-INNOVATIVE SOLUTION

### Technical aspects of the eco-innovative solution

The Vitirover is a mower-robot which works completely autonomously using solar power. It is equipped with photovoltaic cells and operates at a speed of less than 500m/ hour. All VITIROVER robots come with the GPS coordinates of each plot of the respective property, in order to be able to manage a predefined landscape. No vine gets cut or even damaged and crop shortfalls can be avoided.

The robot can handle deviations of up to 10 cm in the terrain caused by faulty site preparation and can work on slopes of up to 15%. In addition the VITIROVER has been used in PV farms and in orchards

### Economic and environmental benefits of the eco-innovative solution

Investment for the Vitirover is around 8,000€, including a GPS optimisation of the plot and a 3 year warranty; 1 robot is needed for 2ha.

Savings consist mainly of a reduction in the use of weed killers of up to 70% and improved soil management. Of particular significance is that no vines are damaged.

## 2. AVAILABILITY OF THE ECO-INNOVATIVE SOLUTION AND BUSINESS PARTNERSHIP

### Market readiness, Trade mark, existing market coverage, commercialization strategy

The Vitirover is already available in Germany, France, Belgium, UK, Italy and Chile  
Trade mark available: Vitirover

### Requirements to adapt the solution to the local market and potential applications/market size

The Vitirover is ideally used in vineyards where there is a need to manage the grass and generally in all large grassy plots such as photovoltaic farms, orchards, parks, large gardens, cemeteries and stadiums.

### On-site after-sales services support and the technical assistance requirements

Local business partner to provide maintenance, although little maintenance is needed however.

### Targeted local business partners

Supplier of vineyards, orchards and Photovoltaic farms

### Type of local business partnership sought

Reseller