



smart **AKIS**
Smart Farming Thematic Network



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AGREEMENT N. 696294

Electric straddling robot for winemakers



Title	Electric straddling robot for winemakers
Title (native language)	Robot enjambeur électrique
Category	<ul style="list-style-type: none"> • Robot or smart machine
Short summary for practitioners (Practice abstract) in English)	<p>TED, is a new straddling robot that will improve working conditions for wine growers and reduce their workload while respecting nature and the environment. The vineyard weeding robot is a project in progress. It is a collaborative project that is co-financed by the Midi-Pyrenees region, the IFV technical centre for vineyards and wine and the LAAS-CNRS robotics research lab in Toulouse. We aim to conduct real-life tests on our prototype in the course of 2016. Sales and marketing of the vineyard robot should start as soon as 2017. Objectives : A multifunctional straddling robot for vineyards A single robot will be able to weed and maintain a surface of about 25Ha. Its main task will consist of mechanically hoeing and weeding unwanted in-row herbs and weeds. The robot will also integrate other functionalities, such as mowing, leaf thinning and trimming operations.</p>
Short summary for practitioners	
Website	www.naio-technologies.com/en/agricultural-equipment/vineyard-weeding-robot/
Audiovisual material	
Links to other websites	
Additional comments	
Keywords	Farming equipment and machinery
Additional keywords	robot weeding straddling enjambeur désherbage

Geographical location (NUTS)	FR
Other geographical location	
Cropping systems	Vineyards
Field operations	Tillage Pesticide application Weed control
SFT users	Farmer
Education level of users	All
Farm size (ha)	10-50 50-100

Company info

Company name	Naio Technologies
Address	12 avenue de l'Europe, Ramonville Saint Agne, France
Website	www.naio-technologies.com
Patent status	

Effects of this SFT

Productivity (crop yield per ha)	No effect
Quality of product	No effect
Revenue profit farm income	Large increase
Soil biodiversity	No effect
Biodiversity (other than soil)	No effect
Input costs	Large increase
Variable costs	Large increase
Post-harvest crop wastage	No effect
Energy use	Large increase
CH4 (methane) emission	No effect
CO2 (carbon dioxide) emission	Large increase
N2O (nitrous oxide) emission	No effect
NH3 (ammonia) emission	No effect
NO3 (nitrate) leaching	No effect
Fertilizer use	No effect
Pesticide use	Large increase
Irrigation water use	No effect
Labor time	Large increase
Stress or fatigue for farmer	Large increase
Amount of heavy physical labour	Some increase
Number and/or severity of personal injury accidents	Some increase
Number and/or severity of accidents resulting in spills property damage incorrect application of fertiliser/pesticides etc.	Some increase
Pesticide residue on product	Some increase
Weed pressure	Large increase
Pest pressure (insects etc.)	No effect
Disease pressure (bacterial fungal viral etc.)	No effect

Information related to how easy it is to start using the SFT

This SFT replaces a tool or technology that is currently used. The SFT is better than the current tool	agree
The SFT can be used without making major changes to the existing system	no opinion
The SFT does not require significant learning before the farmer can use it	no opinion
The SFT can be used in other useful ways than intended by the inventor	agree
The SFT has effects that can be directly observed by the farmer	agree
Using the SFT requires a large time investment by farmer	no opinion
The SFT produces information that can be interpreted directly	no opinion

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SMART AKIS PARTNERS:



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