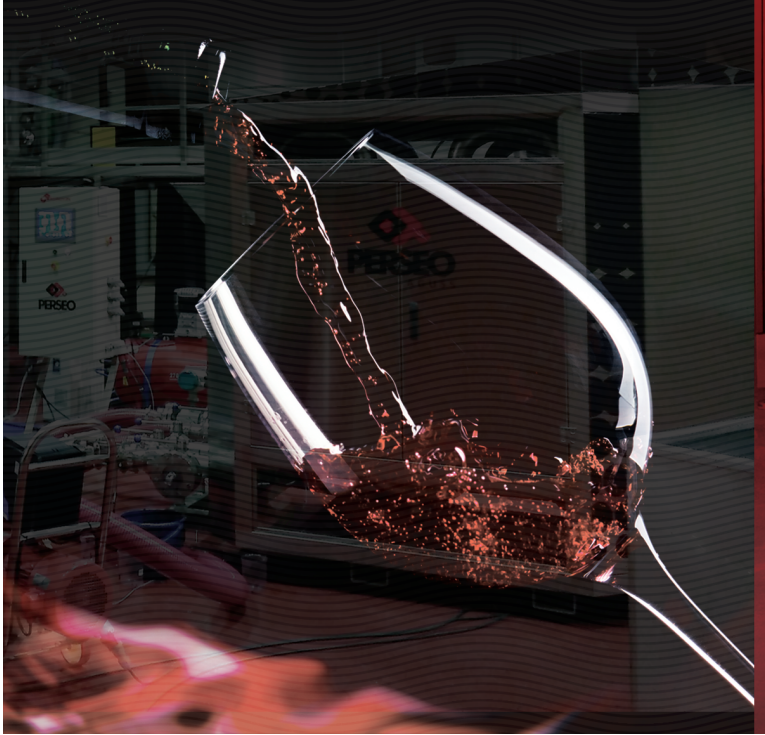
# EUROPEAN INNOVATION

Since the begin of the decade, the team that makes up the Department of Technological Innovation at AGROVIN has been developing cutting edge technology in the wine sector. The biblographical research and and field research with the support of Universities allow for the design and improvement of an ultrasound machine that allows the processing of up to 10 tonnes of grape per hour.

Such is the impact of this technique in the sector that in 2015 the European Comission rewarded this large scalw project, the “Eco-Innovative Maceration System Based on LFHP Ultrasound Technology for Winemaking” (ULTRAWINE, GRANT AGREEMENT number 672309) with the Horizon Program 2020 through the PYME tool.

This project has received funding from the European Union´s Horizon 2020 research and innovation programme under grant agreement Nº 672309




# PASSION FOR INNOVATION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# PASSION FOR INNOVATION

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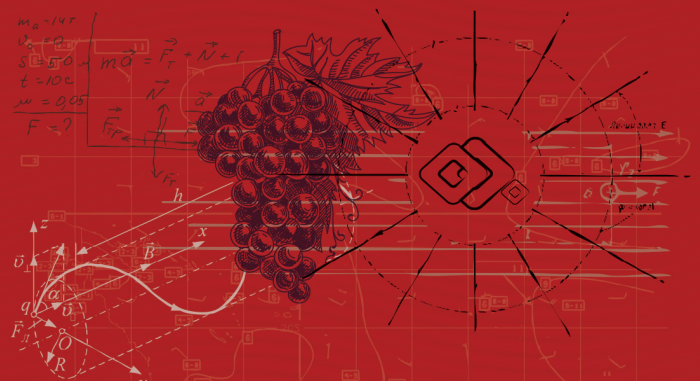
AGROVIN

As a consequence of the mechanisation of harvesting, winerys will gather a large quantity of grapes in a very short space of time. Due to that, wine makers need tools to allow them to process all of this raw material quickly and still produce high quality wines. This need led AGROVIN to develop cutting edge technology, based on ultrasounds, which permits the total extraction of the polyphenolic and aromatic potential of the grape in record time without altering the organoleptic characteristics of the resulting wine.

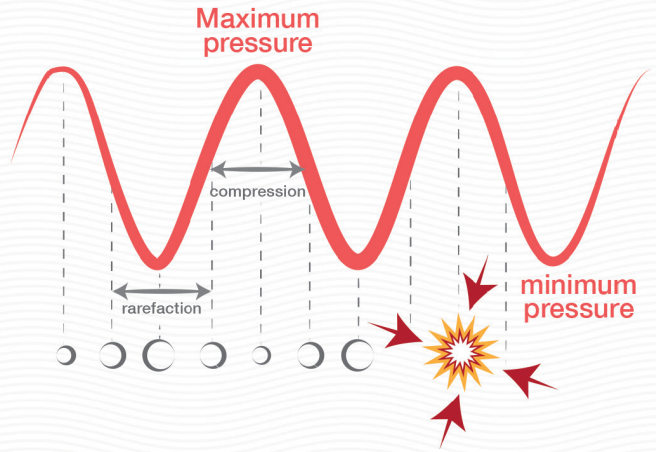
The colour of the wine is one of the organoleptic parametres most valued by the consumer, as it shows a lot about the winemaking process and evolution. The colour is especially important in red wine due to the economic investment needed to extract the phenolic fraction of the pomace, where the phenolic compounds, which are responsible for the coloration, are stored. These substances do not just influence the colour but also contribute to the flavour (aroma, astringency and flavour) and also influence the aftertaste and the body.



# AIM

The aim of this technique is the rapid extraction of the aromatic and polyphenolic potential of the grape through ultrasounds respecting, at all times, the quality of the raw material. Through ultrasound waves the use of thermal and chemical treatments that could negatively effect the quality of the final product is avoided.

The technology of ultrasounds is based on the phenomenon known as cavitation. This physical process consists of the production of microbubbles that tend to collide with each other and release their energy. This aggressive collission of the bubbles combined with the associated process of implosion, which causes the abrasion of the pomace, allows the winerys to reduce the time they spend on this process and optimise the production capacity, having access to more maceration tanks.





# EXCELENT RESULTS

This innovative technology is a revolution for the world of wine making, with big advantages when compared with existing techniques. Amongst them, these advantages stand out:

- ***Collection of the maximum polyphenolic potential in a shorter amount of time.***
- ***Wines that are more aromatic.***
- ***An energy-efficient technique that respects the environment.***
- ***No extraction and/or use of undesirable compounds.***
- ***Brief maceration with the seeds avoiding the extraction of green tanin in crops harvested at low temperatures.***
- ***No increase temperature.***
- ***Quick to install and easy to use.***