



BUSINESS PLAN



Life ZEO WINE

ZEOlite and WINERY waste
as innovative product for wine production



LIFE17 ENV/IT/000427

www.lifezeowine.eu



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1. **Technical references for the elaboration of ZEOWINE Project Business Plan**

The LIFE ZEOWINE project **have implemented and systematized the production of an innovative product, ZEOWINE, which contributes to the protection and management of vineyard soil, the well-being of the plant and the quality of the production in the wine productive chain, including in its organic and biodynamic declination.**

The adoption of ZEOWINE productive process and application in viticulture have demonstrated to what extent **it improves the properties of vineyard soil and the physiological characteristics of the plant.** The synergy of the positive effects on the soil and on the plant is also reflected in the **improvement of the characteristics of final production- in terms of grapes and wines produced - which have shown to what extent ZEOWINE helps to preserve the fruity and vegetable aromas, and to increase the polyphenolic and antioxidant features.**

At the same time, the production of ZEOWINE starting from the compost obtained by winery waste, **offer a solution to the problem of waste management - and related waste disposal costs - by closing the company production cycle.**

In all these aspects ZEOWINE have proven to be **a product that allows vineyard farms to be aligned European strategies and national policies** aimed at favoring and encouraging a process of change in agricultural practices with the aim of preserving biodiversity at the agronomic ecosystem level, reducing pollution of water resources, the containment of erosion and the loss of soil fertility, also contributing to the reduction of Greenhouse Gas Emissions.

Notwithstanding all these concrete positive effects, when it comes to make forecasts of the possible wider use of the ZEOWINE productive process and



application, since the planning phase, project partners agreed that it is always quite difficult to get vineyard farms / wine producers to accept new protocols for the production and application of a new product starting from the management of wine waste without scientific background and proven trials, and it is even more difficult when it happens without public incentives and / or funding for maintenance actions.

In this sense, the project allowed to **give a strong scientific basis** by demonstrating that the ZEOWINE product also improves the quality of final production and, therefore, increases the competitiveness of companies, which is always one of the focus point driving managers decisions.

In this sense, the "ZEOWINE Replicability and Transferability Plan" outlined a "political" solution capable of supporting a strategy of real replicability and transfer, if not in a strictly marketing and commercial sense.

Therefore, as foreseen at project proposal stage, for the elaboration of the ZEOWINE Business Plan, partners have mainly worked in order to identify:

- methods and tools for the **distribution of the ZEOWINE product itself**, in a more marketing and commercial strict sense;
- methods and tools for **disseminating the productive process and the application and management protocols of the ZEOWINE product** to vineyard farms / wine producers companies, based on the prospective of a self-production process, autonomously chosen by potential end-users;
- methods for developing Networks between subjects who perform technical-scientific roles in research and innovation actions in agriculture and monitoring methods.



2. ZEOWINE Project Business Plan

The aim of this document is to analyze the potential marketability of the ZEOWINE product production and application in vineyards in order to support the exploitation of project results by other end users (vineyard managers, farm manager, wine growers and table grape producers) and/or stakeholders such as local/regional authorities, governmental institutions, association of entrepreneurs in the viticultural sector, research centres at National and, where possible, at European level, with a focus on those countries and regions where viticulture plays an important role.

The partnership, in the design phase, however, in the technical references for the drafting ZEOWINE BUSINESS PLAN defined and shared that it should be focused on 2 approaches:

A. DISSEMINATION OF ZEOWINE AS A PROCESS to vineyard farms/wineries, for an autonomous self-production process, from its production to its application and management.

B. DISSEMINATION OF ZEOWINE AS A PRODUCT, in the business plan the partnership will define a pre-commercial activity plan in line with the characterization of the project.

For this reason, in this document, project partners explored the 2 different possibilities, and the necessary activities to carry out based on these 2 main scenarios.



2.1 The Project

The LIFE ZEOWINE Project (2018-2022) was a demonstration project aimed to improve the protection and management of vineyard soil and the well-being of the vine through the application to the soil of an innovative product "ZEOWINE" deriving from the composting of wastes from the wine sector and zeolite.

Starting from the results of previous experiments, which aimed to evaluate the effectiveness of zeolite and compost in a separate way in other production chains, the project has defined protocols for the production of ZEOWINE product and its application in productive and in new vineyard plant fertilization.

The activities performed within the project were planned to evaluate and prove the synergy of the positive effects of the application of ZEOWINE on soil and vine plants in terms of:

- **improvement of the vine nutrition management**, reducing dependence from organic and mineral fertilizers and increasing the fertility of soil;
- **improvement of the characteristics of grapes and wines produced** which will better preserve the fruity and vegetable aromas, and will increase the polyphenolic and antioxidant supply;
- **offering a solution to the problem of waste management by closing the company production cycle**, since the production of ZEOWINE starts from wine processing of waste compost with zeolites.

The application of ZEOWINE product in the vineyard, moreover, confirmed the results also in the vineyard, at vine plant and final production levels. Specifically, ZEOWINE application has shown improvement in:

- **SOIL ORGANIC MATTER CONTENT**: ability to maintain the reserve of nutrients and stabilized organic matter in the soil (carbon sequestration);
- **FUNCTIONAL BIODIVERSITY**: increase in enzyme activities linked to nutrient cycles and in total microbial activity;



- MICROARTHROPOD BIODIVERSITY: microarthropods particularly adapted to edaphic life (QBs-ar INDEX);
- INCREASE IN WATER RETENTION CAPACITY and AGGREGATE STABILITY of soil;
- REDUCTION OF BIOAVAILABLE COPPER
- BETTER LEAF GAS EXCHANGE CAPACITY
- BETTER PERFORMANCE IN THE MORE STRESSED YEAR (2021): higher stem water potential
- EFFICIENT RIPENING: simultaneity between technological and phenolic maturation
- INCREASE IN YIELD AND IMPROVE QUALITY BOTH AS SUGARS AND POLYPHENOLS

LIFE ZEOWINE has also contributed:

- **to increase the sustainability and competitiveness of the wine supply chain**, implementing nutritional and water efficiency and reducing energy consumption, closing the production cycle of waste material from the supply chain and ensuring higher stability in yields and quality of the grapes, obtaining, product more suited to modern market demands;
- **to improve consumer health protection**, creating ideal growth and development conditions for crops capable of determining improvements in terms of resistance, healthiness and plant production.

Another important result reached during the project was the **successful registration of ZEOWINE as «soil improver»** (Beneficiary in charge: DN360 Reg. n. 03006/21 - 31/05/2022) in the Italian register of fertilizer producers (Regulation CE 2003/2003 and D. Lgs. 75/2010).

REGISTRO FERTILIZZANTI			
	Menu Funzioni 		
REGISTRO DEI FERTILIZZANTI			
Uso Convenzionale			
Ricerca per Nome Commerciale			
Ricerca	Guida		
Elenco Fertilizzanti			
Ricerca per: ZEOWINE			
Totale Fertilizzanti: 1			
Codice	Nome commerciale	Denominazione tipo	Sel.
0036556/22	ZEOWINE	All. 5.3.6 - Ammendante compostato verde	
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2.2 Results achieved and validity of the solutions proposed

LIFE ZEOWINE production and protocols of application both in the pilot productive vineyards as well as in young/new vineyard plants was based on:

- **the development of ZEOWINE:** production and application protocols through the composting of wastes from viticultural production and zeolite;
- **vineyard soil treatment with ZEOWINE:** application of ZEOWINE compost to productive and young vineyards in areas with different topographic and climatic conditions to demonstrate the effectiveness of ZEOWINE fertilization on selected local varieties of vine plants;
- **the fine tuning of final application protocols** according to the outcomes of the above-mentioned actions.

The implementation of the project allowed to demonstrate that the presence of zeolite in composting process of winery wastes improved the quality of the final compost in terms of:



- electrical conductivity,
- nutrient content,
- phytotoxicity,
- microbial activities and
- physical properties.

In particular, zeolite increased the adsorption of ammonium ions of compost, thus resulting in higher total nitrogen content in zeolite-based compost with respect to control compost without zeolite. The retention of ammonium when natural zeolite is added in the composting process is a very important aspect to increase the agronomic value of compost and reduce the environmental pollution.

Finally, the py-GC results demonstrated that integration of zeolite in composting process offered the benefit of the higher carbon humification with respect to control compost.

By comparing the two zeolite-based composts (ZEOWINE 1:10 and ZEOWINE 1:2.5), we can conclude that **the ZEOWINE 1:10 compost is the most suitable practical application for improving the winery wastes composting process and, at the same time, for saving on the cost of providing zeolite.**

Considering the production of about 210 tonnes of ZEOWINE during the project (CMM: 22,5 tons first cycle+22,5 tons second cycle+22,5 tons third cycle+15 tons fourth cycle; Col D'Orcia: 64 tons first cycle + 64 tons second cycle) and its application on 0,35 ha of a new plant (CMM) and 3,5 ha of vineyard in production (0,4 CMM + 2,4 Col D'Orcia + 0,3 Tenuta delle Ripalte + 0,4 Tenuta Santo Spirito) with a single application of ZEOWINE at a dose of 30 t / ha, **LIFE ZEOWINE has shown that the production and application ZEOWINE's innovative product is effective and beneficial in the organic and biodynamic viticultural chain and in the improvement of soil quality with reference to several parameters.**



The proposed solutions have been shown to have a positive impact on the aspects characterizing the vineyard soil management and the wine production and on other relevant environmental aspects as recapped in the table below:

ENVIRONMENTAL BENEFITS	VARIATION
Increase in Soil Organic Carbon	+30%
Increase in microbial functionality	+50%
Increase in biodiversity (QBS-ar Index)	+38%
Increase in stable aggregates	+33%
Increase in Soil Water Retention Capacity	+1% (= 20 m ³ /ha/year)
Reduction of the bioavailable copper	-40%
Reduction of GHG emissions:	
CO ₂	-200%
N ₂ O	-149%

Furthermore, the vineyard soil management strategies of ZEOWINE have made it possible to maintain and improve the qualitative levels of the productions, without modifying their commercial value.

In fact, with regard to **all the parameters analyzed (productivity of the plants, organoleptic/product characteristics of the grapes and wines)**, there were **positive differences between the productions obtained with pilot vineyard farms method and those obtained with the ZEOWINE application.** .

Although with slightly different values between the 3 vegetative seasons (2019, 2020, 2021) the improvement of ZEOWINE treatments on final productions (grapes and wine) were analyzed for CMM for all the 3 years, and for COL D'ORCIA for 2020 and 2021 and have shown:

- **GRAPE QUALITY:** slow maturity in ZEOWINE, witnessed by lower sugar content and lower total acidity, which allowed a **better balance between sugar content and anthocyanins;**



- **GRAPE QUANTITY:** higher yield and higher berry weight;
- **WINE CHARACTERISTICS:** higher alcohol content.

The effect of ZEOWINE on the qualitative characteristics was very significant; all the quality parameters have improved following the treatment, indirectly demonstrating an improvement in the characteristics of the wines that will be obtained.

The project, moreover, demonstrated an impact on GHG-Greenhouse Gas Emissions-generated by specific agricultural activities - composting and application of the product itself, which contributes to increasing the ability to fix and maintain the reserve of mineral elements in the soil, reducing the need for fertilization, increasing the water retention capacity of the soil, and reducing the number of soil fertilization processes with consequent reduction of emissions related to the use of agricultural machinery. The total reduction in planned and confirmed GHG is approximately 22 t / ha CO₂ per year. Increased APA content (in grapes of about 50 mg / L, this increase results in a better course of alcoholic fermentation and an aromatic kit of the most complete grapes).

Therefore, we can recap that in terms of Environmental benefits, the project demonstrated and confirmed its impact in reference to:

Improved Environmental and Climate Performance: confirming the expected reduction of GHG (CO₂ and N₂O) and waste reduction

Better use of natural resource, in terms of reduced resource consumption, and reduced water consumption, which was almost double the value expected;

Sustainable land use, agriculture and forestry, in terms of soil surface improved and agricultural land under sustainable management.

Another important result reached during the project was the **successful registration of**



ZEOWINE as «soil improver».

In fact, fertilizers placed on the market in Italy are subject to control to ascertain compliance with the provisions of Regulation (EC) No. 2003/2003 and Legislative Decree 75/2010.

ZEOWINE falls within the regulatory classification of “Green Composted Soil improver” as defined by Legislative Decree 75/2010 All 2.

DN360 has carried out the registration of the Company in the Register of Fertilizer Producers (National Agricultural Information System (SIAN) 11 April 2022; Registration number: 03006/21) and is now registered in the list of Fertilizer Producers by the National Agricultural Information System (SIAN).

The ZEOWINE registration to the category of amendments in the Register of Fertilizers has been carried out the 12 May 2022 (Registration number: 0036556/22).

REGISTRO FERTILIZZANTI

Menu Funzioni

REGISTRO DEI FERTILIZZANTI

Uso Convenzionale

Ricerca per Nome Commerciale

Ricerca Guida

Elenco Fertilizzanti

Ricerca per: ZEOWINE
Totale Fertilizzanti: 1

Codice	Nome commerciale	Denominazione tipo	Sei.
0036556/22	ZEOWINE	All. 5.3.6 - Ammendante compostato verde	<input checked="" type="radio"/>

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Dettaglio

For the placing on the EU market, the new Regulation 1009/2019, which will come into force from July 2022, ZEOWINE will be considered to belong to the Constituent Materials Category (CMC) 3.

For the first time, the EU legislation will allow the conformity and thus the free marketability throughout the EU and the CE marking of organic recycled products.



However, in order to be classified as compost in the CMC 3 category, the concentration of zeolite has to be reduced to 5% by weight.

In view of this, **an additional composting cycle using zeolite at 5% by weight and winery wastes derived from 2021 harvesting has been carried out, confirming equivalent results.**

2.3 Scenarios for economic feasibility



Once proven the efficacy, sustainability and effectiveness of the ZEOwine application, two important elements which had to be defined and officialized in relation to the potential use of the ZEOwine product were certainly:

- ✓ **ZEOwine recognition as soil improver and its insertion in the National Register of soil fertilizers**, thanks to the successful registration obtained on 13/05/2022 in the National Agricultural Information System (SIAN) Fertiliser Register puts the product in line with Regulation CE 2003/2003 and D. Lgs. 75/2010 (Beneficiary in charge: DN360);
- ✓ Definition of the most convenient/cost-effective percentage of zeolite concentration in the final ZEOwine product. In this sense, the partnership has widened **the experimentation with the 5% concentration by weight** in order to demonstrate equivalent efficacy with the 10% concentration, thus **guaranteeing furtherly the alignment with the recent set of regulations for natural fertilizer/soil improvers**, and also **positive effects on the final costs for the implementation of the practices proposed**.



Given this framework and the results of a SWOT analysis realized, the project have confirmed and highlighted 2 main scenarios in relation to ZEOWINE possible economic and marketing development.

A) ZEOWINE as a PRODUCT

In this scenario project partners have considered the potentiality for centralized production of ZEOWINE product and its distribution as a product in big bags.

The partnership in the project implementation phase have concretely faced the **pre-conditions and limitations of this scenarios**, linked to:

- Availability of winery waste in **sufficient quantities to satisfy the level of demand**;
- Availability of **wider equipment and infrastructures** for the composting phase based on large quantities;
- **Logistic aspects** to collect winery wastes from vineyard farms, which generates transport costs to collect the initial waste and deliver the produced ZEOWINE in return and negative environmental impacts for these transportation;
- **Loss of control on the quality of winery waste collected from different sources**, which can imply costs for further analysis before processing the centralized composting phase;
- **Loss of the specificity of reuse of winery waste in the same productive areas**;
- **Long-term productive process** (approximately 8-9 months for each composting cycles) although positively counterbalanced by the fact that then the application will have a long-term functionality per hectare treated (approximately 8 years);
- **Costs for alternative solution** (commercial compost for agricultural purposes) might represent a competitive obstacle.



B) ZEOWINE as a PROCESS

In this scenario, foreseen since proposal stage, project partners have considered the production of ZEOWINE directly in the same vineyard farm that will then benefit from on-site ZEOWINE application (B₁).

During the implementation of the project, a further evolution of this scenario was considered as an up-scaling of solution B₁, which is referred to similar zero-km solutions, involving wider consortia of wine producers, as represented below in B₂.

(B₁) The elements that characterize the option of **application of ZEOWINE process at single vineyard farm level**, have been considered, resulting to be the most easily practical and immediate way.

Most of the criticalities and limitations highlighted in the first option of the ZEOWINE as a product, appear to be overcome in this scenario, specifically:

- Although the issue of availability of winery waste in sufficient quantities to cover the entire vineyard farm still persists, this limitation can be overcome by a **multiannual plan in which the vineyard farm can quite easily plan the number of years necessary to cover the whole vineyard surface, in relation to the quantities of wastes yearly produced**. Moreover, in wide and extensive farms with differentiated cultivations and agricultural activities, the compost inputs can be improved with other natural waste collected by other productive chain covered by the company, increasing the quantity of waste strictly related to winery;
- In a medium - long-term planning of self production and application of ZEOWINE, the issue related to the 8-9 months length of **the productive process can be properly scheduled also considering the persistence of ZEOWINE positive effects with long-term functionality per hectare treated (approximately 8 years)**;
- **The availability of equipped dedicated areas and infrastructures for the**



- composting phase in single vineyard farms is proportional to the farm dimensions**, and represents a pre-conditions for the ZEOWINE self production;
- The self-produced ZEOWINE will guarantee the **maintenance of the specificity of reuse of winery waste in the same productive areas as well as a certain degree of control on the quality of winery waste collected**;
 - **Costs for alternative solution** (commercial compost for agricultural purposes) will remain a potential obstacles for the company available choices.
 - There are **no critical logistic aspects** to overcome, since the self production implies that the vineyard farm is autonomous to produce on-site the composting, mixing and application of ZEOWINE, with reduced costs and impact of transportation of both waste and produced ZEOWINE;
 - In order to ensure the proper application of procedures and controls during the self-production process and application, vineyard managers can use project deliverables and require on line support or dedicate consultancy/coaching services from project team.

(B2) The elements that characterize the option of **application of ZEOWINE process at a wider level, promoting the creation of composting hubs with territorial wine consortia and association of wine producers**, have been considered, resulting to be a solution for up-scaling project feasibility and maintaining some scale economies which can locate this solution as intermediate between the ZEOWINE pure centralized commercialization of a product, and the single vineyard farm application.

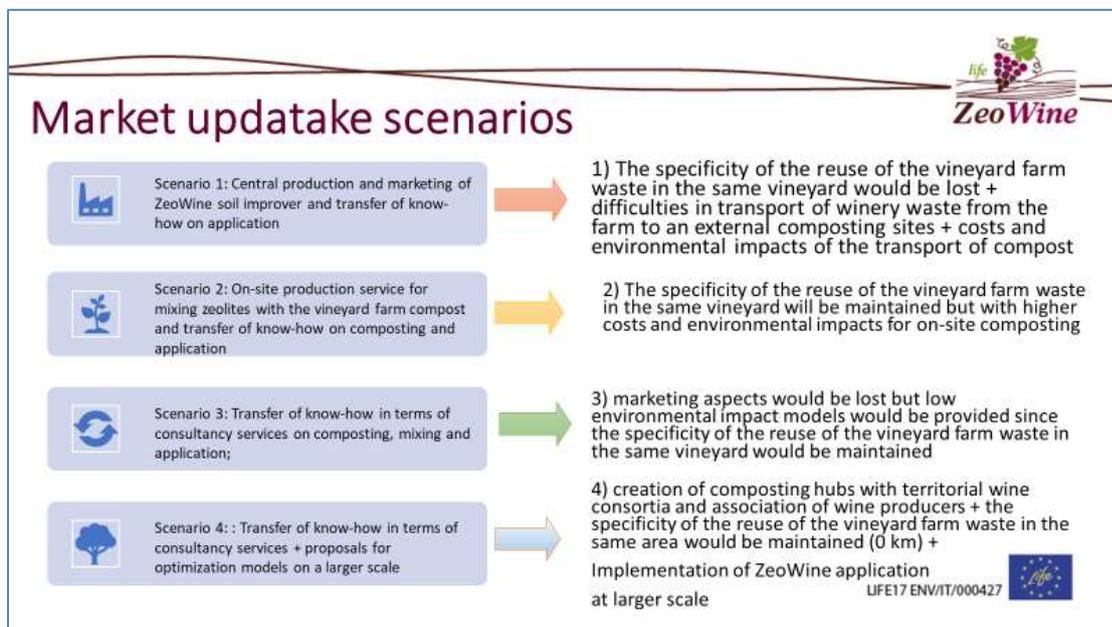
The potential creation of composting hubs with territorial wine consortia and association of wine producers have the same features highlighted for B1 option, but with the advantage:

- to continue to guarantee the specificity of the reuse of the vineyard farms waste in the same area, at least within a 0 km approach,
- of reduced transportation costs, since the hubs should serve a limited boundary area

where vineyard farms of the consortia are located,

- of possibility to share production costs, such as for composting equipment / infrastructures, for purchase of zeolite, for eventual specialized consultancy services and, at the same time, the implementation of ZEOwine application can be developed at a larger scale

The pros and cons of the different combined scenarios for ZEOwine market up-take, can be represented as in the picture below.



Reassuring:

- 1) **Case-scenario of ZEOwine product commercialization:** the specificity of the reuse of the vineyard farm waste in the same vineyard would be lost in case of production of ZEOwine in other areas/with other compost for its commercialization as a product;
- 2) **Case-scenario of production and commercialization of ZEOwine using**



- specific farms composts delivered to a central productive plant:** the reuse of the vineyard farm waste in the same vineyard would be preserved but, difficulties in transport of winery waste from the farm to an external composting sites + costs and environmental impacts of the transport of compost, generate negative environmental and economic impacts;
- 3) **Case-scenario of support to on-site process implementation:** the specificity of the reuse of the vineyard farm waste in the same vineyard will be maintained but with higher costs for the client farms for on-site composting; marketing aspects would be lost but low environmental impact models would be provided since the specificity of the reuse of the vineyard farm waste in the same vineyard would be maintained
- 4) **Case-scenario of creation of promoting composting hubs with territorial wine consortia and association of wine producers:** in this case the specificity of the reuse of the vineyard farm waste in the same area would be maintained (or at least tolerate within a 0 km approach) and the implementation of ZEOWINE application can be developed at a larger scale

The business plan developed and presented in this document, is based on the **development of the B) scenario related to ZEOWINE as a PROCESS.**

Specifically, project partners have analyzed the conditions for the realization of a CONSULTANCY SERVICE to involve single vineyard farm/wine producer (B1) and wider Consortia (B2) in the autonomous production and self application of ZEOWINE within their own estates or in the wider area on which the consortium is present, in the hypothesis of promoting common composting hub per territorial context.

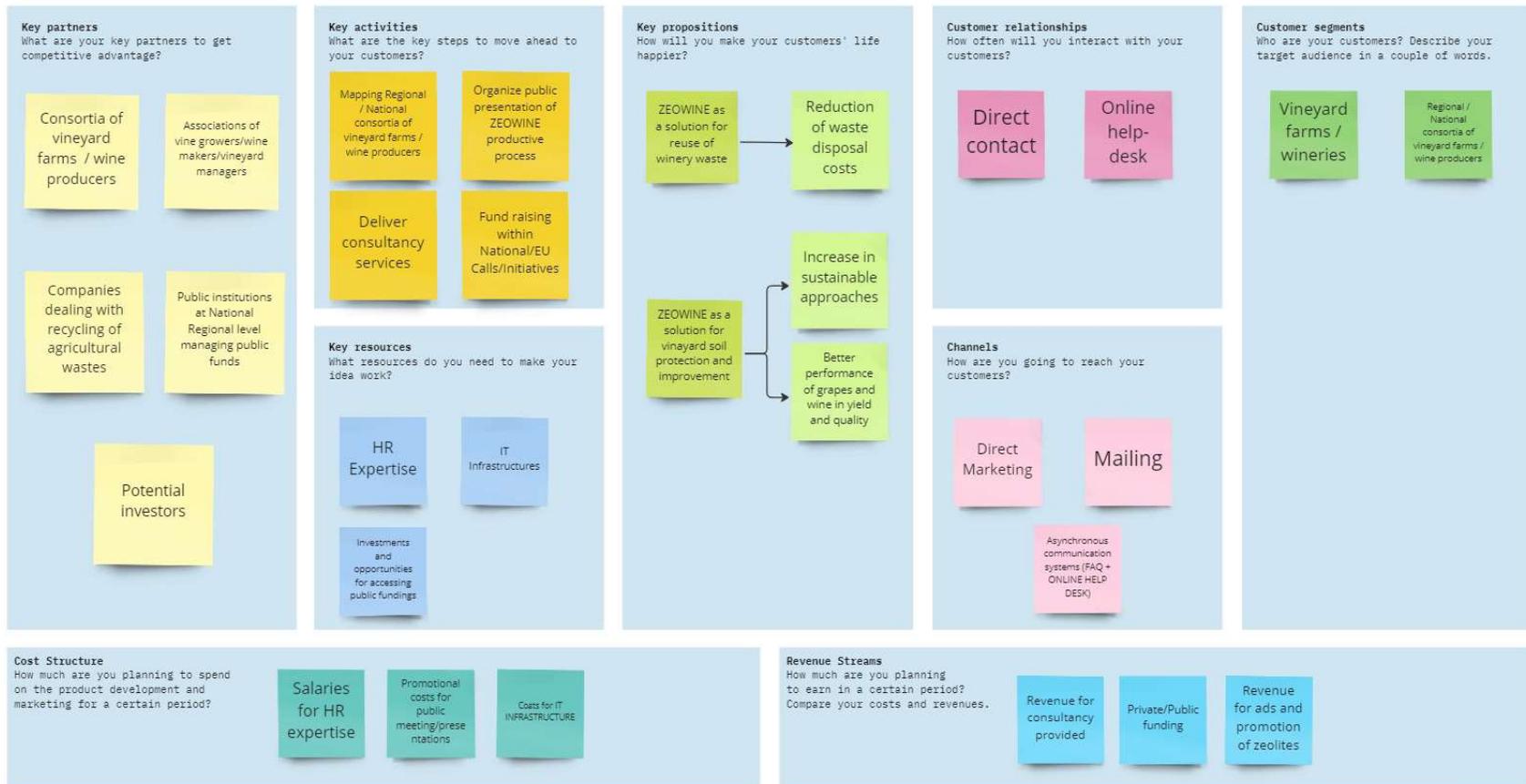
The Business Model have been developed through the elaboration of a Business Model Canva, and an executive summary describing the context of application, marketing strategy and forecast of costs and revenues.



BUSINESS PLAN - ZEOWINE Process – consultancy service



The Business Model Canvas - ZEOWINE Process - consultancy service





The Business Opportunity

What problem are you solving? What pain points will you resolve for your customers?

Viticultural sector is facing several problems linked to climate change and other relevant environmental phenomena that are growing ever more challenging for vineyard farms and wine producers.

The **climate change** that has been taking place for several years now has led to a reduction in the water availability of Italian and European soils. As a consequence of these climatic variations, the phenological phases of many crops have undergone changes. For vines, for example, there is an advance of 6-8 days for each 1 °C increase during the growing season. The increase in anomalous vintages, with short and intense rainfall, concentrated in a few days a year, is also causing an increase in erosive phenomena, especially in the hillside vineyards arranged upright (orientation of the rows along the line of maximum slope). Numerous studies have reported that European-wide vineyards tend to lose more soil than the proposed threshold value of 1.4 t/ha per year as a tolerable threshold for soil loss in Europe.

Another aspect, which determines the increase in erosion, is the **decrease in organic fertilizations in favour of mineral ones**. The decrease in organic matter especially in intensive monocultures such as viticulture is becoming a consolidated problem in most Italian vineyards. At European level, about 90% of soils show a low (0-2%) or medium (2-6%) organic carbon content. The lowest values are found above all in the soils of southern Europe, where 74% of the territory has less than 2% of organic carbon in the surface layer (0-30 cm). The tillage of the soil destroys its structure (with greater losses of humus due to mineralization), remixes the surface horizons with a homogeneous distribution of the organic substance in the worked layer and alters the soil temperature. For vineyards in central Europe a loss in stable carbon (humus) has been estimated of approximately 4 t/ha per year in heavy soils, 6 t/ha in light soils and 8 t/ha in soils rich in skeleton and in slope.

With reference to the problem related to **soil contamination from phytosanitary treatments**, it is highlighted that copper is the first fungicide used in viticulture which, together with sulphur, represent the backbone of organic viticulture. Since the use of copper in the fight against downy mildew does not induce resistance from the pathogen, it represents an indispensable weapon still used effectively today. However, **the negative effects associated with the use of copper are also important**; in fact, due to repeated treatments, copper accumulates in the ground both due to the drift effect and the fall of the leaves on the ground in autumn and, if present in excess, it is toxic for the vine.

Another relevant aspect is linked to the problem of **managing winemaking residues / winery waste**.

Grape is the leading fruit crop cultivated in the world (Food and Agriculture Organization of the United Nations, 2017). In 2018 the annual world production of wine was 292 million hectoliters and the world's agricultural land devoted to the production of wine was 7.4 kha (2019 Statistical Report on World vitiviniculture, 2019). **The amount of solid organic wastes generated per wine's hectoliter is estimated to be about 25 kg (Lanfranchi et al., 2018), thus the yearly production of residues which requires to be treated and disposed of represents more than 7 million tons.** In view of this, the wastes generated from the winery industry are addressed as a world growing environmental problem. The development of strategies to reduce the consumption of resources (energy, materials, chemicals) and the amount of waste released, by maximizing the recovery and recycling of by-products throughout a product's life cycle is acknowledged as an universal contemporary challenge (European parliament, June 2015).

However, in **most grape growing states, grape marc, skin, stalk, and pomace from the winery supply chain**



are still treated as waste with little or no value; they are usually disposed of in open areas and are a source of environmental pollution due to the emanation of volatile organic compounds (VOC), the increase in chemical oxygen demand (COD), the presence of recalcitrant compounds and the free-run juices percolation (Rondeau et al., 2013).

The separation and enhancement of processing by-products such as stalks, skins, grape seeds and dregs are important imperatives of sustainability. Such organic waste can in fact represent a concrete resource rather than being seen as an annoying cost to manage. **Some estimates on the potential residues of the wine sector in Italy indicate an availability of about 2.4 million tons of by-products of winemaking, which are on average 3/4 unused.**

In relation to this scenario, vineyard farms and wine producers, requires environmental sustainable solutions, able to promote the sustainability and competitiveness of the wine sector in terms of:

- ✓ **rationalization of the use of fertilizers**
- ✓ **reduction of energy consumption**
- ✓ **reuse of company waste materials**
- ✓ **increase in the quality of grapes and wine**
- ✓ **stability and / or increase in yields**



Product / Service

What will you sell?

Based on the results of the ZEOWINE Project, the protocols for production and application of ZEOWINE based on a mixture of compost derived from winery waste and zeolite can provide a solutions to the problems faced by vineyard farms/wine producers at single business level and also at wider associated level, for Consortia of wine producers within a defined local/regional scope.

Project partners have developed:

- protocols of production of ZEOWINE, from the composting process to the application of the final product;
- protocols for its application both in young/new vineyard plants, as well as to productive vineyard;
- guidelines for an autonomous self-production and application;
- technical and scientific know-how to support this process.

Project partners can, therefore, provide a **consultancy service for single vineyard farm/wine producer or Consortia of wine producers within a defined local/regional scope**, to support the wider implementation of the ZEOWINE productive process and product application.

Thanks to the long-term benefits of the application of ZEOWINE to vineyard soil (8 years), the consultancy service can be significant for the start-up of the process in the farm, but can span its effects on a multiannual basis.

Target Market

Who are your ideal customers who will buy it?

The ideal customer identified are:

- single vineyard farm/wine producer
- consortia of vineyard farms/wine producers within a defined local/regional scope.



Competitive / Industry Analysis

Who are your local competitors? What is your competitive advantage? What are the key factors (magic) to being successful in your industry?

Local competitors are identified mainly as:

- **fertilizer producers**
- **commercial composts producers**

The competitive advantage provided by the self-production and application of ZEOWINE for potential customers/end-users is identified in:

- ✓ **the possibility to rationalize the use of fertilizers, with advantages either in terms of better sustainability of the vineyard management, as well as in terms of reduction of costs for chemical fertilizers**
- ✓ **the possibility to reuse of company waste materials, with advantages in terms of increased soil quality, reduced environmental impacts of fertilization strategies, and reduced costs for their disposal;**
- ✓ **the possibility to reduce energy consumption and increase water retention capacity of the vineyard soil;**
- ✓ **the possibility to increase the quality of grapes and wine, and to obtain stability and / or increase in yields.**

Furtherly the potential competitive advantage can be identified in the low cost for the consultancy service, which can be necessary for the starting-up of the process, but can be beneficial for longer periods, in the prospective of autonomous continuation in the successive years.

Marketing Plan

How will customers learn about your business? Which channels will you use to attract and convert your target audience?

A preliminary mapping of:

- single vineyard farm/wine producer at local, regional and national level
- consortia of vineyard farms/wine producers within a defined local/regional scope.

is strategic to apply a marketing strategy.

In continuation with project activities beyond its end, the AFTER-LIFE Plan foresee:

- **realization of further dissemination events to present project results and ZEOWINE protocols for production and application;**
- **project website and social media maintenance.**

Other channels and activities to realize are:

- **focused meetings/public events can be organized to reach consortia of vineyard farms/wine producers;**
- **online tools, such as direct mailing, project website call to action, social media, dedicated project email for direct contact;**
- **elaboration of FAQ and asynchronous info services.**



Positioning Statement / Value proposition

What is your business positioning statement?

We offer CONSULTANCY SERVICES for VINEYARD FARMS AND WINE PRODUCERS to SUPPORT THE AUTONOMOUS SELF-PRODUCTION OF ZEOWINE, an innovative and environmentally sustainable solution to REUSE WINERY WASTE, INCREASE SOIL PROTECTION AND QUALITY, REDUCE WATER AND ENERGY CONSUMPTION, REDUCE THE USE OF CHEMICAL FERTILIZERS AND THE RELATED CHEMICALS IMPACT ON VINEYARD SOIL, maintain and increase yield, quality of grapes and wine.

Unlike COMMERCIAL FERTILIZER and COMPOST PRODUCERS, we PROVIDE A SOLUTION TO VINEYARD FARMS AND WINE PRODUCERS TO VALORIZE WINERY WASTE, CLOSE THE WASTE MANAGEMENT CYCLE OF THE VINEYARD, MAINTAIN AUTONOMOUS PRODUCTION AND APPLICATION OF THE SOLUTION PROPOSED, BENEFITING IN THE LONG TERM (8 years) OF A SINGLE APPLICATION.

Financial Plan

What will you charge? How will you get paid?

What are the other revenue streams for this project?

Main costs for the implementation of the consultancy service are related to:

- Salaries for expertise of Human Resources involved in the consultancy service;
- Advertising/promotional costs for organization of public events/specific meetings for project and service presentations;
- Costs for on-site visits to vineyard farms potential or actual customers;
- Costs for implementation/maintenance of a basic IT structure for online consultancy services and promotional activities.

Revenues streams identified are:

- Revenue for consultancy services realized;
- Private/Public sponsorships
- Public funding under specific funding schemes at local/regional level
- Eventual revenue deriving from ads and partnership with zeolite producers.

Success Story

What will be the success story for this project? [annual income] in terms of [number of customer orders] & [avg price of products/services sold]

In the first 3 years:

€70.000 per year = 4 medium-large vineyard farms consultancy customer and implementation of at least 4-5 hectares of vineyard soil treated with ZEOWINE per each vineyard farm + at least one wider consortium for implementation of composting hubs
 € 10.000 avg. price of services – one year of consultancy

From the second year:

It is expected to add revenues from fund-raising activities for financial support to vineyard farm, wine producers and Consortia, in the measure of the 7-10% of the total fun

INFORMATION AND REPLICABILITY

All the material produced within the project **LIFE ZEOWINE** useful to know and replicate protocols can be found in the website (www.lifezeowine.eu) and on social channels. In particular you can find:

GUIDELINES FOR THE APPLICATION OF ZEOWINE PROTOCOLS, practical consultation tool for vineyard managers and winegrowers who are ready to develop their

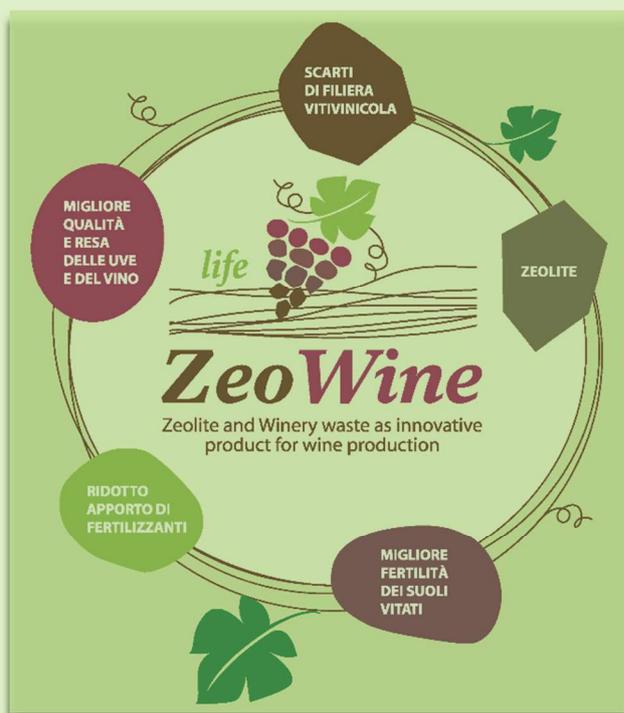
vineyard soil management with a strong environmentally sustainable approach
<https://www.lifezeowine.eu/deliverables/>

- **Articles and press releases** related to the project implementation and future activities
<https://www.lifezeowine.eu/publications/>
- **Informative and training videos**
<https://www.youtube.com/channel/UCQXDKO83TMFiyD8W8NK2MVw>
- **Contact email** lifezeowine@gmail.com



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