



LIFE Project Number  
<**LIFE15 ENV/IT/000641**>

**Deliverable INVOLVEMENT OF “DEMO FARMERS”**

*Sub-action B3.1 "Co-development"*

*Sub-action B3.2 "Education and training"*

**LIFE PROJECT Soil4Wine**

**SOIL<sup>4</sup>**  
**WINE**



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## 1. Introduction: Project overview

**Soil4Wine** project "*Innovative approach to soil management in viticultural landscape*" is aimed to achieve a better soil management in the whole viticultural eco-system developing and testing an innovative Decision tool and management solution tested in farms located in the Project area and in Europe.

This report presents the structure and main outcomes of sub-action B3.1 "*Co-Development*" and B3.2 "*Education and Training*" related to Soil4Wine project Action B.3 "*Interaction with stakeholders*".

EPGB is the responsible for this action and UCSC, HORTA, ERVET and VIN are involved in.

## 2. Sub-action B3.1"Co-development"

The meetings planned during the project involve eight companies located within the “Parchi del Ducato” boundaries along with the ResUvae company HORTA (DEMO companies) that has a key role within the Soil4Wine Project.

These companies have been involved in the definition, use and validation of a "decision-making tool" developed by the Università Cattolica del Sacro Cuore (UCSC) and HORTA to optimize the management of the vineyard soil and promote the ecosystem services provided by them.

The 4 scheduled meetings were held on 2 May 2017, 23 May 2017, 13 June 2017 and 1 August 2017 with the involvement of the “Parchi del Ducato” (EGPB), UCSC and HORTA and the coordination of Genius Loci, Facilitation & Development, an animation company selected “ad hoc” for this purpose.

### 1.1 SUMMARY OF MEETING

- **1st meeting (02.05.2017 Lugagnano Val D'Arda - PC): SOIL PROBLEMS**

#### **Participants:** 12

The first meeting of the demo farmer gathered information about the soil health of their vineyards and the existing problems they encounter.

The objective was to share with the working group the list of problems to be considered in the diagnostic tool, enriching the project proposals.

In pursuing this objective, the main concerns of farmers in relation to the soil have emerged, both in terms of the effectiveness of the solutions to be implemented and the commitment of resources that they require (money, time, labor).

**Synthetic scheme** that combines some of the problems mentioned by the sample farms and those reported by the research group of the Catholic University; the second column collects the signals that make the problems manifest to the farmers and the third the solutions put in place to solve them.

<b>PROBLEMS</b>	<b>SIGNALS</b>	<b>SOLUTIONS</b>
DROUGHT-DRYNESS	SOIL CRUST	COVER CROP POND and DRIP IRRIGATION
LOW ORGANIC MATTER	LOW YIELD COVER CROP DISEASE	GREEN MANURE MANURE CHEMICAL FERTILIZER
EROSION (water and/or wind)		CANAL SYSTEM TO DRAIN WATER
COMPACTION	INCREASE IN BULK DENSITY AND A DECREASE IN SOIL	CONSERVATION TILLAGE
COMPACTED LAYERS		
AFFORESTATION	YOUNG PLANTS, SEEDLINGS	
SALINE SEEPS/SALINITY	NO PLANTS (neanche la gramigna)	GROW SALT TOLERANT

		CROPS
SOIL STRUCTURE	VISIBLE STONE, ROCKS	REMOVAL
WATERLOGGING		DRAINAGE
ANIMALS	HOLES IN THE GROUND (DAMAGE TO THE CROPS)	FENCING
LOSS OF BIODIVERSITY IN SOIL LIFE	NO EARTHWORM	GREEN MANURE USE ANIMAL MANURE
<u>ABANDONMENT OF LAND</u>	WEEDS	
HETEROGENEITY OF LANDS (PROBLEMS IN FARMING)	DIFFERENTS SOILS IN THE SAME GROUNDS –	
CLIMATE CHANGE – GLOBAL WARMING		
CONTAMINATION WITH CHEMICAL PRODUCTS		
RUN-OFF		



• **2<sup>nd</sup> meeting (23.05.2017 Res Uvae Costa Gravaghi, Castell'Arquato - PC): THE PRESENTATION OF THE FLOW OF THE INSTRUMENT - THE INDICATORS**

**Participant: 14**

In the first phase of the second meeting the logical scheme was presented on the basis of which the instrument will be developed:

- At a first time will be asked to enter the characteristics of the site, which will be possible that the climate is correct .
- The indications regarding the characteristics of the site will bring the system to create a list of possible soil problems.

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- The user of the tool, the farmer, has a series of problems to verify the effective presence of the problem on its soil and indicates it in the system.
- On the basis of the problems recognized by the farmer, the system will indicate mitigation actions and the ways in which they will be carried out.
- The system is therefore a path to follow for the monitoring and evaluation of the effectiveness of the interventions.

During this meeting, it emerged that some problems are not very considerate by farmers, among them:

- the scarce biodiversity, with respect to which the effect with respect to crops is not evident;
- the sole of processing is that it is money for the habit of working with rows, a practice which one tends not to want to renounce;
- Poverty of organic matter.

All the indications have been studied by the project team to calibrate the proposals related to the indicators in the decision-making tool. More generally, attention is paid to the importance of trends, both with respect to seasonality.

In this meeting two opposing positions emerged clearly: a longer-term approach, which aims to find new ways in a climate, and therefore agricultural context, , profoundly changed in recent years, and a short-term approach, focused on the company's enterprise budget.



- **3<sup>rd</sup> meeting (13.06.2017 Res Uvae Costa Gravaghi, Castell'Arquato - PC): SOIL PROBLEMS AND PRACTICAL SOLUTIONS**

**Participants:** 10

In the third meeting, ecosystem issues and solutions were more directly related to barriers to the application of solutions not practiced today, including:

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- the excessive cost also in terms of labor
- the duration of the intervention and the possible continuous treatment that often cannot guarantee
- the not very clear effects or not immediate.

It is during this meeting that the topic of soil contamination is addressed with the use of plant protection products, a problem that also considered for the extreme importance in the use of the herbicide. The theme therefore refers both to the speed requested by actions in the field, and to the lack of availability of the final recipient, the consumer, to spend more on a wine produced according to practices of greater respect for the environment and the soil.

The last part of the meeting was dedicated to the presentation of the grassing and greening practice, gathering attention and questions from farmers.

The scheme is below returns the correspondences between the problems of soil and solutions are applied today, as they have been quoted by the representatives of the companies:

	<b>SPONTANEOUS GRASS TRIMMING</b>	<b>TILLAGE</b>	<b>WATER DRAINAGE</b>	<b>MANURE</b>
	<b>GRASSING</b>	<b>TRIMMING</b>	<b>RIPPER</b>	<b>GREEN MANURE</b>
<b>DROUGHT</b>	X	X		
<b>EROSION</b>	X		X	
<b>WATER LOGGING</b>			X	
<b>COMPACTION</b>	X			X
<b>HARD PAN</b>	X			
<b>LANDSLIDES</b>			X	
<b>CONTAMINATION</b>				
<b>LOW ORGANIC SUBSTANCE</b>				X
<b>LOW BIODIVERSITY</b>		X		





- **4<sup>th</sup> meeting (01.08.2017 Res Uvae Costa Gravaghi, Castell'Arquato - PC): THE "DECISION-MAKING INSTRUMENT"**

**Participants: 13**

The fourth meeting focused on understanding the purposes, on the evaluation of the co-design instrument and on the interest in using it in their vineyards.

In short, the tool is intended as a guide that youngsters consider more effective when online, while the more mature farmers present would prefer traditional support.

In addition to the purpose before suggesting more current solutions to problems related to soil health, the guide is valued as:

- an instrument of stimulation and cultural enrichment;
- an instrument for the sharing of knowledge in the community and towards the PA, often not aware of the collective effects of poor land management;
- a starting point to activate a new sensibility that can also reach the awareness of economic entities up to the consumer.

The limits in the application of the tool exist and concern the inertia that farmers recognize to themselves in the processing of the vineyards.

However, two aspects are reiterated:

- the first is the need to change one's behavior in the light of the difficulties generated by climate change;
- the second is the aim of the Soil4wine project to translate into activities recognized as ecosystem services and that is of value for the whole community and in this sense recognized economically.

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### 3. Sub-action B3.2 “Education and training”

Three education events were organized in collaboration with UCSC at Res Uvae farm:

DATE	VENUE	TOPIC	PARTICIPANTS
21/03/2017	Sala Gasparini – Università Cattolica di Piacenza	1. Project presentation and winegrowers role; 2. Presentation of the 4 parks (EGPB); 3. General introduction on the soil main threats.	18
4/04/2017	Sala Gasparini – Università Cattolica di Piacenza	1. soil problems in the Parks territory; 2. agronomic management of the soil in the vineyard	12
06/04/2017	Corte di Giarola – Strada Giarola 11 - Collecchio	1. soil problems in the Parks territory; 2. agronomic management of the soil in the vineyard	
01/08/2017	“Res Uvae” Castell’Arquato – PC – loc. Costa Gravagli 7	1. soil management (demo day); 2. presentation of the alfa version of the tool	20

The project included 2 meetings of 3 days to be held in the provinces of Parma and Piacenza, but it was decided to make the first appointment in Piacenza as a common meeting to present Life by inviting the companies "demo", living and the exploitation group of both the provinces.

Even the closing meeting (01/08/2017) was organized with the same logic and the invitation was also extended to agronomists and professionals in the sector.

The activities foreseen by the sub-action B3.2 have served as support to the co-development meetings to improve the knowledge of the problems of the soil and to show alternative solutions to the resolution of problems related to the theme of the project.

#### 1<sup>st</sup> education meeting 21.03.2017



2<sup>nd</sup> education meeting 06.04.2017



3<sup>rd</sup> education meeting 01.08.2017



#### 4. Annexes

- Co-Development report
- Signatures of co-development meetings
- Presented materials of Co-development meetings
- Signatures of education and training meetings
- Presented materials of Co-development meetings