

Deliverable 7.6: Report on Living Labs results (version 1)

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Version History

Version number	Implemented by	Notes
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List with abbreviations

Abbreviation	Full title
CDE	Communication, Dissemination, Exploitation
AWMN	Agroecological Weed Management Network
AWM	Agroecological Weed Management
LL	Living Lab
LLs	Living Labs
EIP	European Innovation Partnership
KPI	Key Performance Indicators
IPM	Integrated Pest Management
PA	Practice Abstract
KER	Key Exploitable Result
UPV	Unique Value Proposition
F2F	Farm 2 Fork





1. Executive summary

GOOD is a Horizon Europe project, a Research and Innovation Action. The goal of the GOOD project is to reduce the use of herbicides in Europe by creating, implementing and assessing Agroecological Weed Management (AWM) practices across Europe. AWM measures will be developed and demonstrated in 16 so called Living Labs (LLs). The LLs aim to improve knowledge co-creation with farmers and stakeholders and to share the knowledge with all target groups. The LLs will be the centre of the physical part of the AWM network that will be developed in GOOD. Next to the physical part GOOD will develop a digital part, together building the EU wide AWM network (AWMN), with all relevant actors across the agri-food value chain. The network will elaborate links with other projects and networks operating in the field of agroecology and Integrated Pest Management (IPM). The ultimate aim is to foster the transition process to AWM and reduce the herbicide use in Europe.

GOOD partners experience in demonstration will be used to promote peer-to-peer learning and informal knowledge exchange among AWMN stakeholders to respond to specific needs and precise demand. Demo-farmers of the LLs will share their experiences with other practitioners through different field events. Each LL will organize at least 2 field demonstration events to show the results of AWM in practice. These events will be adapted to each LL's culture. The demo activities will be reported three times (D7.6, D7.9, D7.12).

The deliverable reports some of the first demo events of the GOOD project.

2. Introduction

For a European project centered on agroecological weed management, showcasing the results and fostering knowledge exchange through demonstration events (or "demo events") across 16 Living Labs can play a vital role in both demonstrating project impact and engaging stakeholders.

The demo events within this agroecological project serve as practical, hands-on gatherings to showcase the latest developments in sustainable weed management practices. By offering a tangible demonstration of strategies and tools, these events help bridge the gap between research and real-world applications. With an aim to promote ecological approaches that reduce chemical inputs, enhance biodiversity, and support farm resilience, these events reflect the core mission of each LL to inspire, educate, and empower local stakeholders in adopting agroecological methods for weed management.

Each of the 16 LLs in the project is uniquely situated across different European regions, reflecting diverse agricultural landscapes, soil types, climates, and cropping systems. The demo events in these LLs are designed to tailor agroecological practices to the specific needs and challenges of each region. The diversity of the Living Labs provides an invaluable learning opportunity, as the insights generated can be shared across regions to optimize strategies under varying environmental conditions.





The demo events are typically organized as half-day to full-day sessions, with structured agendas to ensure a balance of theoretical knowledge and practical application. The content of these events may include:

Field demonstrations: These are on-site activities where participants observe various weed management techniques and innovative agricultural practices in action (such as intercropping, cover cropping, inoculation of cover crops with beneficial microorganisms, mechanical weeding, use of mulching, drone flights, site-specific weed management etc.). Demonstrations often compare plots with different treatments, showcasing the benefits and limitations of each method.

Workshops and interactive discussions: Each event typically includes a workshop or discussion session where participants can ask questions, provide feedback, and discuss how the demonstrated practices (either *in situ* or in presentations digitally) could be adapted to their specific conditions. This engagement fosters a sense of co-ownership and enhances the likelihood of method adoption post-event. In the context of the GOOD project, the co-creation workshops are considered as demo events showcasing results from the experimental sites where different AWM strategies were tested or are planned to be implemented.

<u>**Cross-visits</u>**: These short trips are mainly made by researchers to visit field experiments and discuss preliminary results, risks, achievements-failures, and combination of practices at the heart of the experimentation. GOOD has planned cross visits between partners (from LL to another LL) and also stakeholders outside the consortium (e.g., cross visits by researchers and colleagues from the same or other countries).</u>

Technical Presentations: In addition to fieldwork, technical presentations are held on topics such as the latest findings in agroecological weed science, the impacts of various practices on soil health and biodiversity, and practical implementation tips. These are typically held on webinars/seminars *or* before the demo events. GOOD plans a series of different webinars to present the results from the experiments and engage stakeholders in an open dialogue associated with the adoption of AWM practices.

One of the main objectives of the demo events is to build a strong community of practitioners committed to AWM. Each event is structured to maximize interaction among participants, fostering dialogue between different types of stakeholders—farmers, agronomists, researchers, and policymakers. This engagement allows stakeholders to share experiences, troubleshoot challenges, and identify opportunities for collaboration. The diverse insights gained through networking are crucial for adapting weed management strategies in ways that align with the ecological and socio-economic realities of each region.

The demo events also offer a forward-looking component by sparking ideas for future collaborations, partnerships, or research projects that could emerge from the knowledge gained. As the project progresses, the insights gathered from each demo event across the LLs can help refine and adapt practices for broader scalability and applicability across Europe.





3. Demo events in GOOD

GOOD has built a European network for Agroecological Weed Management, that will foster the implementation of AWM practices across Europe, reducing the use of herbicides for the control of weeds in agricultural crops. AWM practices are developed, tested and demonstrated in 16 Living Labs (LLs) across 9 partner countries (Portugal, Spain, France, Netherlands, Italy, Greece, Cyprus, Serbia, Latvia).

Early and continuous demonstration of the GOOD solutions and innovations for AWM is critical to attract more stakeholders in using those practices for weed management, but also serve as the basis for discussing the technical and operational difficulties and opportunities associated with their adoption by farmers and other users.

* The co-creation workshops of GOOD (due in M18) will be reported in D1.7 Establishment of GOOD LLs and LL boards (version 3) due in M24.

Countries involved					
Type Field demo	Workshop Cross-visit	Technical pres.			
Living Lab: Serbia (RS_soybean/13) & Serbia (RS_maize/14)					

Summary

Researchers from Leibniz Center for Arable Land Research (ZALF) visited Living Labs (LLs) with maize and soybean withing the GOOD project. With guidance of dr Milena Simić, dr Vesna Dragičević and MSc Natalija Pavlovic, they were introduced with aim and preliminary results concerning LLs in MRIZP. They confirmed that greater variability in weed infestation level and weed floristic composition was present, in regard to applied cover crops (oats, rye, common vetch, and treatment without cover crops) as well as applied treatments in organic LLs (mechanical control, bioherbicide, false seedbed, organic mulch and treatment free) and conventional LL-s (full herbicide rate, reduced herbicide rate, bioherbicide, mechanical control and treatment free). As the preliminary results indicate, conventional production with joint impact of rye and common vetch with both herbicide rates showed the greatest influence on weed infestation level.







Count	tries involved	ų.		()		
Туре	Field demo	Workshop	Cross-visit	t Technical pres.		
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Living Lab: Greece (GR_grapes/25)

Summary

The WEed Science Team (WEST) and the Smart Farming Technology Group (SGTG) from the Agricultural University of Athens organized a field day in the Greek Living Lab of grapes in Nemea region. The aim was to engage young researchers with farmers in order to discuss preliminary results on the performance of cover crops and the degree of suppression of weed communities. The field day was also attended by the scientific project manager from the University of Coimbra, Dr. Alexandros Tataridas, to bring knowledge and discuss similar results from the Portuguese Living Labs. An article was published online to one of the biggest farmers' journals and information websites, Agrotypos https://www.agrotypos.gr/paragogi/fytoprostasia/nees-proseggiseis-stin-agroikologikidiacheirisi-zizanion



Countries involved			()
Type 🗌 Field demo	Workshop	\Box Cross-visit	Technical pres.
Living Lab: Spain (ES cherr	v/27)		

Summary

The GOOD project coordinator, Prof. Helena Freitas, and the scientific project manager, Dr. Alexandros Tataridas, conducted a cross-visit to the Cherry Living Lab in Extremadura, Spain, which is managed by CICYTEX. In the field visit, the UC team had the opportunity to meet with Spanish researchers and local farmers, to discuss the results of the first year's experimentation (in particular the effectiveness of combinations of weed management practices, as well as the technical problems related to the adoption and spread of agroecological practices in cherry production). The two countries share the same pedoclimatic conditions (especially the areas of Central Portugal and central-west Spain) and it is expected that in the future, through the Portuguese LLs, even more stakeholders, beyond those involved in olive growing, will be engaged in AWM.





Countries involved 🥑							
Type 🛛 Field demo	Workshop Cross-visit Technical pres.						
Living Lab: Cyprus (CY olives/26)							

Summary

The Cypriot team from the Cyprus University of Technology (CUT) and its local collaborators have established a regular connection with the members of the LL board. They have already met twice and one of this meeting was in the olives grove, where different stakeholders from different groups gathered to discuss the performance of the cover crops, evaluate AWM treatments and attend a drone flight.



Countries involved	(8)				
Type Field demo	Workshop Cross-vis	sit 🛛 🖾 Technical pres.			
iving Lab: Portugal (PT_cowpeg/17) & Portugal (PT_olives/22)					

Summary

The University of Coimbra (UC) along with several organizations organized a hybrid event with the title "Youth and agroecology" on 14.10.2024 at the Instituto Superior de Agronomia in Lisbon. Dozens of in-person and online attendees participated and engaged in fruitful discussions about the role of youth and need to reform policies to support rural revitalization. The event was supported in the context of the October European Days of Action by GoodFoodGoodFarming, a civil society alliance which highlights the need for a fairer and more sustainable future for food and farming. Two co-creation workshops were also conducted regarding AWM and the results from the cowpea Portuguese LL, and one more about agroecological food market. The latter could serve as the basis for the work to be carried out by Task 6.3 of GOOD.





AGROECOLOGY FOR WEEDS					
Countries involved					
Type Field demo Workshop Cross-visit X Technical pres.					
Living Lab: France (FR_apple-plum/21)					
Summary					
CTIFL organized an event, MécaF&L, dedicated to innovations in agricultural equipment					
and new technologies for fruit and vegetable crops. This event aimed to bring together					
to exchange and debate around these subjects during conferences and meetings. This event					
highlighted innovative crop monitoring and protection technologies in the fruit and vegetable					
sector: sensors, innovative application techniques and alternative technologies to use of					
phytosanitary products, such as automation and robotics. The event attracted 232					
participants, such as professionals from the fruit and vegetable sector, group technicians,					
teachers, researchers and producers.					
Countries involved					
TypeField demoWorkshopCross-visitTechnical pres.					
Living Lab: Serbia (RS_soybean/13) & Serbia (RS_maize/14)					
Summary					
MRIZP researchers hosted a workshop of the European Weed Research Society (EWRS)					
13-15 May Belgrade, Serbia. The participants were able to visit the experimental sites and					
13-15 May Belgrade. Serbia The participants were able to visit the experimental sites and 1					

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the project and its goals to this broad audience.

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performance of cover crops before the sowing of the main crops). Dr. Simic also presented



Countries involved				
Type Field demo	Workshop Cross-visit Technical pres.			
Living Lab: All				
Summary				
EDENCORE organized an or	nline workshop on drone image annotation using the CVAT			
software. The attendees were	mainly GOOD partners but also externals interested in the use			
of new technologies in weed	manning A second workshop is planned in 04 2024 for the			
COOD partners only to go do	mapping. A second workshop is planned in Q4 2024 for the			
GOOD partners only to go dec	sper into details and now annotation is properly implemented.			
Countries involved Type Field demo	Workshop Cross-visit Technical pres.			
Living Lab: Spain (ES_rice/I	8)			
Summary				
CICYTEX researchers were able to meet with local policymakers in the field of the rice				
experiments and discuss several aspects around agroecological weed management.				





Countries involved		
Type 🛛 Field demo	Workshop Cross-visit	Technical pres.
Living Lab: Netherlands (NL	_onion/12)	
Summary		
During a meeting on July 3, 20	024, the trial field with the tests was	s visited and the equipment

During a meeting on July 3, 2024, the trial field with the tests was visited and the equipment used for mechanical weeding was viewed. The researchers involved explained the various tests to consultants, researchers and water boards.







4. Timeline of demo events

GOOD demo events will take place in all periods of the project, depending on the type of activity, the climatic conditions and the growth stage of the weeds-cover crops-main crops.

The demo events (either big demonstrations or field days with a few attendees, e.g., neighbouring farmers) will be combined with other cross-fertilization activities, such as (i) the co-creation workshops of GOOD in WP1 to co-assess the efficacy of AWM strategies tested in the LLs in conventional, organic and mixed farming systems, including feedback on the digital solutions and the AWM Toolbox, (ii) the cross-visits of GOOD partners from LL to LL, (iii) the national workshops in the 3rd year of the project and (iv) the exploitation meetings with specific stakeholder groups to transfer specific messages.

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	Timing of activities per quarter of year															
Year	20	23	2024				2025				2026				2027	
ACTIVITY	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2
Living Lab demonstrations																
Co-creation workshops in GOOD																
LLs																
Cross-visits																
National workshops/online training																
Exploitation meetings																

Table 1. Timing of demo events

