HuMUS
Healthy Municipal Soils

Assessment of the pilot projects potential

Deliverable D4.2

31 July 2024

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Summary

The Open Call for Pilot Proposals was launched by the HuMUS consortium in November 2023 and the best 20 proposals were awarded in May 2024, with a maximum sub-grant amount of €30,000 per main applicant for 12 months of their commitment.

The activities described in the application forms of the Pilot Projects include: (i) collaboration and dialogue between the relevant actors; (ii) exchange of experiences between municipalities and regions across Europe; and (iii) creation of spaces and practices for discussion of the soil health challenges and appropriate societal needs.

The deliverable aims to describe the assessment of potential of the winning projects. The potential was considered from two points of view:

1) Potential training and mentoring needs;
2) Potential replicability.

The first point, assessment of the potential training and mentoring needs, was based on two distinct activities: a qualitative analysis, based on reading the winning proposals and extracting the factors affecting replicability, and an online survey distributed among the 20 winners in July 2024. Results include activities, frequency, type and form of the support needed. Those were discussed at a joint meeting between consortium members and the Call winners and will be used by the HuMUS partners to better organize the required support.

As for the second point, a special attention was paid to the concept of replicability. This refers to the ability of funded pilot actions to describe used methodologies and tools as well as the main outputs and outcomes from implementation in such a way to bring benefit to other territorial actors willing to tackle similar problems in the future.

The structure of this deliverable is as follows:

- An Introduction describes the Open Call and the scope of this Deliverable, also providing a highlight of the concept of replicability – or replication potential;
- Chapter 2 provides a list of the 20 winners and reports about the early attempts of the HuMUS consortium at understanding the issues related with replication potential, based on reading the contents of their successful applications;
- Chapter 3 summarizes the results of the survey of Call winners distributed during the month of July 2024;

The report ends with the Conclusions (Chapter 4), References and Annex 1 providing the list of questions formulated in the survey.

1. Introduction

1.1 The HuMUS project and its Open Call

The main aim of HuMUS is to facilitate the deployment of the EU Soil Mission across European regions and municipalities through the following activities:

- the creation of spaces for social dialogue on soil health among public and private actors in Europe;
- the promotion of a shared understanding and co-assessment exercises of soil challenges;
- the enhancement of knowledge sharing among municipalities and regions, including on the needed transformations in current S4 (Sustainable Smart Specialisation) strategies and the use of available EU funds to support the transition.

As testbeds and showcases for the project's value proposition, two distinct sets of pilot actions are foreseen:

- 14 territorial actions set forth by the HuMUS consortium members, in 8 distinct countries of Europe (Bulgaria, France, Germany, Italy, Netherlands, North Macedonia, Slovenia and Spain)
- 20 more local and regional initiatives funded by an Open Call for Pilot Proposals launched in November 2023 and awarded in May 2024 (out of 65 received applications) with a maximum sub-grant amount of €30,000 per main applicant, which exhausted the available budget of the Call itself. These additional pilot sites are in 11 countries, namely Austria, Belgium, France, Hungary, Israel, Italy, Poland, Portugal, Romania, Spain and Ukraine.

According to the HuMUS Grant Agreement, and to the subgrant agreements signed with the 20 winners, they will be supported by the Project Partners with mentoring and coaching services, to facilitate the achievement of their goals.

Funded activities specifically include:

- The development and implementation of effective participatory processes to enable and stimulate dialogues on soil health and sustainable land management at local and/or regional level;
- The development of engagement and awareness raising actions on soil health among local and regional authorities contributing to the development of soil innovation ecosystems;
- The drafting of regional or local action plans to integrate the improvement of soil health in policies and programs, based on any good practice example identified in other EU countries and regions.

Expected outputs from the pilot actions include:

- A signed Territorial Management Agreement, aimed at the sustainable management of soil health issues or threats in the local or regional community of election;

- An Analysis of Replication Potential, evaluating the likelihood and feasibility of replicating the adopted approach in a different context and/or scale;
- A Short Final Report, consisting in a description of the activities done and the results achieved during the Pilot Project's lifetime.

The quality of applications was evaluated against 4 criteria:

- Awareness and understanding of the value of soils and soil health challenges and their drivers;
- Contribution to the dialogue on soil health challenges and solutions at regional and local levels;
- Planned involvement of stakeholders and citizens with balanced representation of interests;
- Capacity to co-implement solutions between public and private actors aimed at the protection and restoration of soil health.

1.2 Objective of this Deliverable and expected results from pilot assessment

An assessment of the potential of each pilot's action regarding the need for capacity building of their leaders and participants is a specific task of the HuMUS project under the coordination of UNIBZ. The results will feed into a second, revised edition of D4.2 (with the first one due in M18) and inform the selection of the most suitable training materials from the WP1 Syllabus (D4.3, due in M30).

A special focus of the assessment concerns the replicability of pilot actions. As stated in the Open Call, the winners must deliver an Analysis of Replication Potential, consisting in a (business confidential) document evaluating the likelihood and feasibility of replicating the adopted approach during the Pilot Project in a different context and/or scale. The analysis will start with the SWOT overview included in the proposal that will be updated with the results of the finalized intervention.

The Analysis of Replication Potential will help to identify the factors affecting the replicability. It will also provide tactical recommendations and guidance for improving the design, implementation, evaluation, and dissemination of similar projects in the future, to enhance their replicability and impact.

Analysis of the projects' potential was carried out by UNIBZ team and supported by ANCI Toscana, and included following methods:

- The online survey: a questionnaire contained four multiple choice questions to identify potential training and mentoring needs expressed by the future trainees (representatives of 20 winner projects)
- Qualitative analysis of the replicability and transferability: descriptions of the replicability and transferability were extracted from the application forms of the 20 projects; the further analysis of the extracted texts included selection of affecting factors mentioned by the authors of the application forms; the factors are summarized in section 2.1
- Direct interaction: an online workshop between the call winners and the appointed Mentors was organized on 23 July 2024 (Mentors are individual members of the

HuMUS partner organizations who will follow the operations of the awarded Pilot Projects during their 12 months' time frame, supporting them in the achievement of their goals.

1.3 Definition and highlight of the concept of replicability

Replicability is a fundamental principle in scientific research, ensuring that key empirical findings can be consistently reproduced under similar conditions. When applied to pilot actions - small-scale preliminary studies or interventions designed to test feasibility, time, cost, risk, and adverse events - replicability becomes crucial for validating the effectiveness and reliability of the initial trials before scaling them up.

In the context of the HuMUS project, replicability refers to the ability of funded pilot actions (but more generally of all participatory governance experiments carried out within the project's timeline, be they promoted by external entities or by the same consortium members) to describe used methodologies and tools as well as the main outputs and outcomes from implementation in such a way to bring benefit to other territorial actors willing to tackle similar problems in the future.

In the Open call for pilots, a specific requirement was included, namely that by the end of their actions all 20 beneficiaries must deliver to ANCI Toscana, an analysis of the replication potential of their own initiatives. An identical requirement is foreseen in the DoA for the 14 "internal" pilots to the HuMUS consortium. This means that by the end of the project, in December 2025, an evidence base of 34 likeminded reports will be made available, including the following aspects:

- A deep dive into the replicable aspects of each pilot action, describing results received due to synergetic implementation of methods and tools, and explaining the specific conditions of the pilot environment, before and after the projects' start.
- A description of those aspects of each pilot action's approach that could be replicated and upscaled.
- A critical consideration of the time and cost constraints, ensuring that replication can occur in the future without serious wastage of resources and/or with the optimization of available ones.

To transfer and to replicate the HuMUS pilot actions can be challenging due to the following factors:

1) Territorial limitations: each pilot action may involve very small areas and communities (at the local, rather than regional level, as the list of funded initiatives shows) which leads to too localized results which could not be easily generalizable.
2) Context specificities: each pilot action is conducted in an environment that is determined by highly peculiar characteristics, which may have a strong influence on the outcomes of the experiment, above and beyond used methodologies and tools, thereby hindering replication in other contexts.
3) Funding constraints: a relatively low budget might limit a wider application of the project activities.

To address these challenges, several strategies have been put forward by the HuMUS consortium, which include the following:

a) Detailed documentation: as already mentioned, all pilot owners are asked to deliver a comprehensive overview of their followed approach, a description of used methodologies and tools (protocols, materials and procedures) and an analysis of their replication potential;
b) Standardized procedures: to the best possible extent, all pilot owners have been invited to use the same approach (supported by the so-called HuMUS methodology) which can ensure replicability through minimized variability and the consistency of results.
c) Creation of internal and external consortium networks: respectively for the 14 and 20 pilot actions. The established networks will involve stakeholders, for sharing of best practices and better preparation of future replication efforts.
d) External dissemination: all data, materials, and protocols used during the pilot actions are widely disseminated as Open Access resources, to enable other interested entities to replicate the actions carried out in similar or different conditions.
e) Background analysis: the HuMUS consortium will carry out statistical studies on the received applications to the call, to understand better – and considering the results delivered – which pilot actions are best equipped to ensure replication, according to which specific characteristics.

The results of the background analysis will be published in a scientific paper with the partners involved as co-authors of this deliverable. The paper will be submitted to a thematic journal in 2024.

Several examples of successful replication efforts in pilot actions concerning social dialogue in rural communities will be used as a part of the State-of-the-art analysis. Such examples are described below.

The International Labour Organization (ILO) has successfully replicated social dialogue structures in various rural communities worldwide. These initiatives focus on involving key stakeholders - such as workers, employers, and government representatives- in discussions and negotiations to address local economic and social issues. For instance, the ILO's efforts in promoting social dialogue in rural economies have led to improved labor conditions, enhanced social peace, and economic progress in multiple regions worldwide[1].

In several African countries, pilot actions involving Community-Based Natural Resource Management (CBNRM) have been successfully replicated. These initiatives encourage local communities to engage in dialogue and decision-making processes regarding the sustainable use of natural resources. The replication of these pilot actions has led to better resource management, increased community participation, and improved livelihoods[2].

In Europe, rural revitalization projects have focused on building resilience through collaborative efforts and social dialogue. These projects often start as pilot actions in

[1] https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@ed_dialogue/@sector/documents/publication/wcms_437201.pdf

[2] https://link.springer.com/chapter/10.1007/978-981-16-5824-2_2

specific communities and, upon success, are replicated in other rural areas. The replication efforts have resulted in strengthened community bonds, enhanced local governance, and sustainable development. More specifically:

- The European Network for Rural Development has highlighted the importance of collaborative efforts and social dialogue in rural revitalization projects. These projects often begin as pilot actions in specific communities and are replicated upon success, leading to strengthened community bonds and sustainable development[3].
- The European Parliament's briefing on EU rural development policy discusses how rural revitalization projects focus on building resilience through collaborative efforts. It also mentions the replication of successful pilot projects in other rural areas, enhancing local governance and community bonds[4].
- The SIMRA project emphasizes social innovation to revitalize rural areas, with successful pilot projects being replicated to boost rural economies and well-being[5].

These examples highlight the importance of structured and inclusive social dialogue in addressing the unique challenges faced by rural communities. By replicating successful pilot actions, these initiatives have created long-term positive impacts across different regions.

[3] https://ruralpact.rural-vision.europa.eu/rural-revitalisation_en

[4] https://www.europarl.europa.eu/RegData/etudes/BRIE/2021/690711/EPRS_BRI%282021%2969 0711_EN.pdf

[5] https://cordis.europa.eu/article/id/428970-rural-innovation-developing-real-solutions-for-smart-and-resilient-rural-areas-in-europe

2. The 20 Pilot projects

2.1 List of the winners and replication potential

Table 1 shows the list of the Open Call winners. In June 2024 ANCI Toscana, the coordinating organization of the project and call, signed the subgrant agreements with almost all winners.

As explained in the Introduction, the 20 winning applications to the Open Call were analysed by the UNIBZ team, and following factors affecting replicability were identified:

1) Performing a proper SWOT and pre-SWOT analyses (the 1st step for further replicability analysis)
2) The role of the socio-cultural issues such as the socio-economic development of a territory for the identification of social and historical factors affecting land management
3) Development of the recommendations to various stakeholders on solving soil issues
4) Activating and facilitating collaboration between actors/stakeholders
5) Identification of the available data, technology, resources and a clear methodology to deal with them
6) The availability of skilled facilitators for engaging the participants
7) The variety of geographical conditions (e.g. moisture, erosion risk) and agricultural practices
8) Increased stakeholders' awareness and exchange of good practices
9) Leader regions playing a potential role of multipliers
10) Defining an ecological accounting approach
11) Relevance and applicability of results can vary across contexts
12) Identifying similar contexts for replicability in Eastern Europe in terms of available raw materials for soil amendments.
13) Possibility of joining context analysis with stakeholders' mapping
14) Participatory approach and partnership among municipalities, building network among medium-sized cities and preparing comprehensive documentation in support of those activities
15) Built trust between the stakeholders
16) Availability of transferable governance practices being available
17) Conducting workshops according to local needs
18) Presence of long-term sustainable cultivation practices

According to the 20 pilot owners, these factors may be considered for selection of the necessary conditions for replicability, during the forthcoming work.

2.2 List of appointed Mentors

In June 2024, ANCI Toscana invited the HuMUS partners to formulate their candidatures for the composition of the team of Mentors, following a territorial contiguity criterion. The results of the matchmaking are presented in Table 1.

On 23 July 2024, the first joint meeting of the 20 winners and their Mentors was held online. The next similar meeting was planned for September 2024. The discussion of the main issues could be a basis for a common ground for the envisaged collaboration between the HuMUS consortium representatives and the leaders and co-leaders of the pilot actions.

Table 1. List of the projects and the appointed Mentors.

Rank	Main applicant name	Title of the pilot project	Country	HuMUS Mentor affiliation	HuMUS mentor name and email
1	Municipality of Allerona	Soil reGeneration (Acronym: Soil reGen)	Italy	ANCI Toscana (IT)	Annalaura Vannuccini annalaura.vannuccini@ancitoscana.it
2	Municipality of Padua	Suoli Agricoli Urbani Rigenerati – SAUR	Italy	UNISG (IT)	Paola Migliorini p.migliorini@unisg.it
3	Institute of Feed Research and Agriculture of Podillya the National Academy of Agrarian Sciences of Ukraine	Enhancing the ability to monitor soil health of agricultural land leased by its owners for intense agricultural	Ukraine	ANCI Toscana (IT)	Francesco Molinari mail@francescomolinari.es
4	ISPRA - Italian Institute for Environmental Protection and Research	Gorgona Smart Island	Italy	ANCI Toscana (IT)	Annalaura Vannuccini annalaura.vannuccini@ancitoscana.it
5	Municipality of Lakitelek	LakiTERRA	Hungary	AEEU (BE)	Boglarka Bozsogi boglarka.bozsogi@agroecology-europe.org
6	National University of Science and Technology POLITEHNICA Bucharest	Increasing stakeholders' awareness of soil contamination because of mining waste storage / CresConSMin	Romania	UHOH (DE)	Juliane Stoye juliane_stoye@uni-hohenheim.de

7	Marktgemeinde Kaindorf	Soil health dialogue in eastern Styria	Austria	UHOH (DE)	Juliane Stoye juliane_stoye@uni-hohenheim.de
8	University of Life Sciences in Lublin	Healthy soil – Healthy Soil Chemistry (SOSoil)	Poland	UNIBZ (IT)	Tanja Mimmo tmimmo@unibz.it
9	Metropole Europeenne de Lille	REVALS - (RE)veal and (V)alorise (L)ife of (S)oils	France	VEGEPOLYS VALLEY (FR)	Léa Minier lea.minier@vegepolys-valley.eu
10	Municipality of Sesto Fiorentino	Healthy Soil in Sesto	Italy	ANCI Toscana (IT)	Annalaura Vannuccini annalaura.vannuccini@ancitoscana.it
11	The National Scientific Center "Institute for Soil Science and Agrochemistry Research named after O.N.Sokolovsky" (NSC ISSAR)	Prevention and minimization of soil threats within Valky community in Kharkiv region of Ukraine	Ukraine	ANCIToscana (IT)	Francesco Molinari mail@francescomolinari.es
12	Municipality of Pollica	Medi-Terra	Italy	UNISG (IT)	Paola Migliorini p.migliorini@unisg.it
13	Municipality of Siena	CiPaS - Con i Piedi al Suolo (With Our Feet On The Ground)	Italy	ANCI Toscana (IT)	Annalaura Vannuccini annalaura.vannuccini@ancitoscana.it
14	Instituto Nacional de Investigação Agrária e Veterinária, I.P. (INIAV)	Healthy Soils @Torres Vedras	Portugal	FUNDECYT (ES)	Mayte Gallego mayte.gallego@fundecyt-pctex.es
15	Municipality of Caravaca de la Cruz	Quipar Valley Restoration Project	Spain	AGAPA (ES)	Arturo Nieto Arjona arturo.nieto@juntadeandalucia.es
16	Gezer Regional Council	Gezer Agricultural-soil regeneration	Israel	ANCI TOSCANA	Francesco Molinari mail@francescomolinari.es
17	Environment Agency of Austria	Soil Health Talks	Austria	ERSTR (DE)	Ulrich Ostarhild uo@ernaehrungsrat-stuttgart.de

18	University of Almería	Building Resilience: A Transdisciplinary Approach to Soil Conservation in Abla, SE Spain	Spain	UGR (ES)	Alberto Matarán Ruiz mataran@ugr.es
19	PXL University College	BûjemBoost: Enhancing Soil Governance in Hasselt's Urban Environment	Belgium	LBI (NL)	Merel Hondebrink m.hondebrink@louisbolk.nl
20	Municipality of Grezzana	Circolar4Umus	Italy	UNISG (IT)	Paola Migliorini p.migliorini@unisg.it

3.Overview of capacity building needs

In July 2024, an online survey was conducted using Microsoft Forms to determine the need for mentoring support from within the pilot project leaders, to ensure their successful completion. Nineteen (19) responses were received and elaborated in Excel. The key evidence is provided on the figures below.

Fig. 1 demonstrates that pilot project leaders require assistance related to (i) local policies on soil health (43%), (ii) stakeholders' collaboration (31%), (iii) soil analysis (11%).

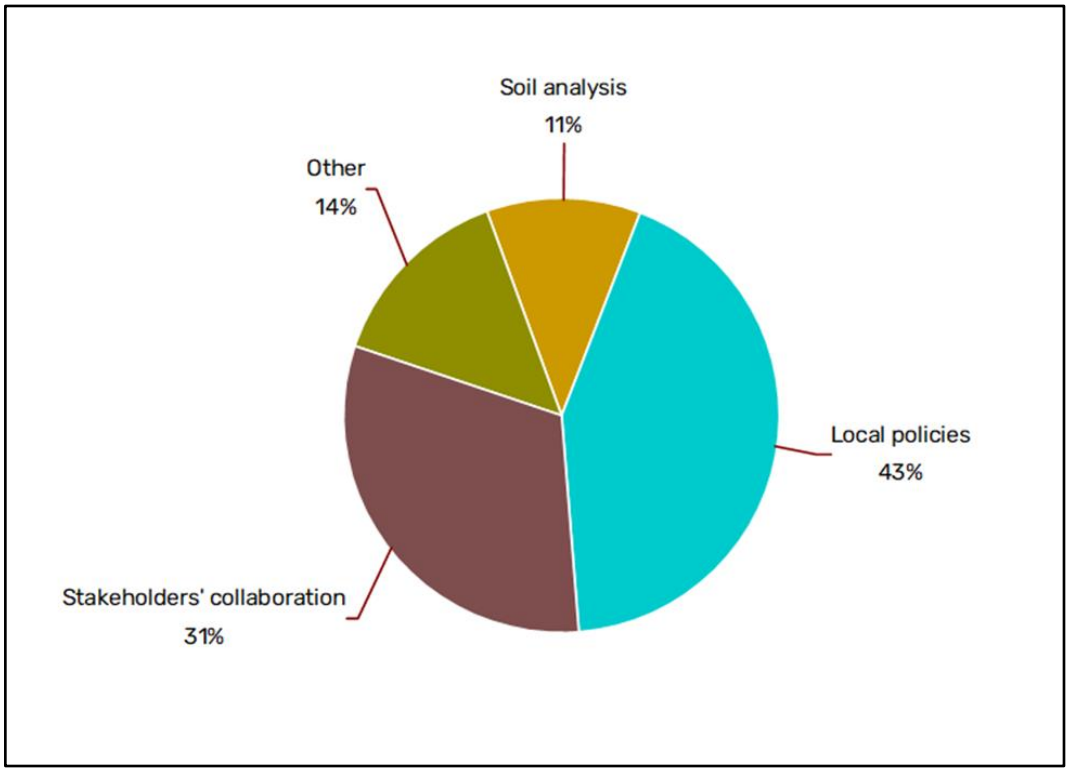

Figure 1. Type of needed support (n=19).

Besides, the respondents asked for other kinds of assistance (14%) such as educational materials, policy briefs and/or best practices in soil health policies from other coal intensive regions. In more detail, the participants in the survey expressed the need for specific types of support, such as:

- A template of Territorial Management Agreement to be adapted by region,
- Achieving integration of local policies on soil health with national or EU initiatives,
- Recommendation of similar projects for clustering if needed,
- Educational materials,
- Recommendation of key speakers from DG Environment or other DGs, if needed,
- Policy briefs and/or best practices in soil health policies from other coal intensive regions.

As for the specific activities where assistance is needed, the respondents selected more than one response (Fig.2). Thus, among the three most required project activities that need to be supported are (i) preparation of the Territorial Management Agreement (19 responses), (ii) preparation of the analysis of replicability (14 responses), and (iii) preparation of a sociogram (7 responses).

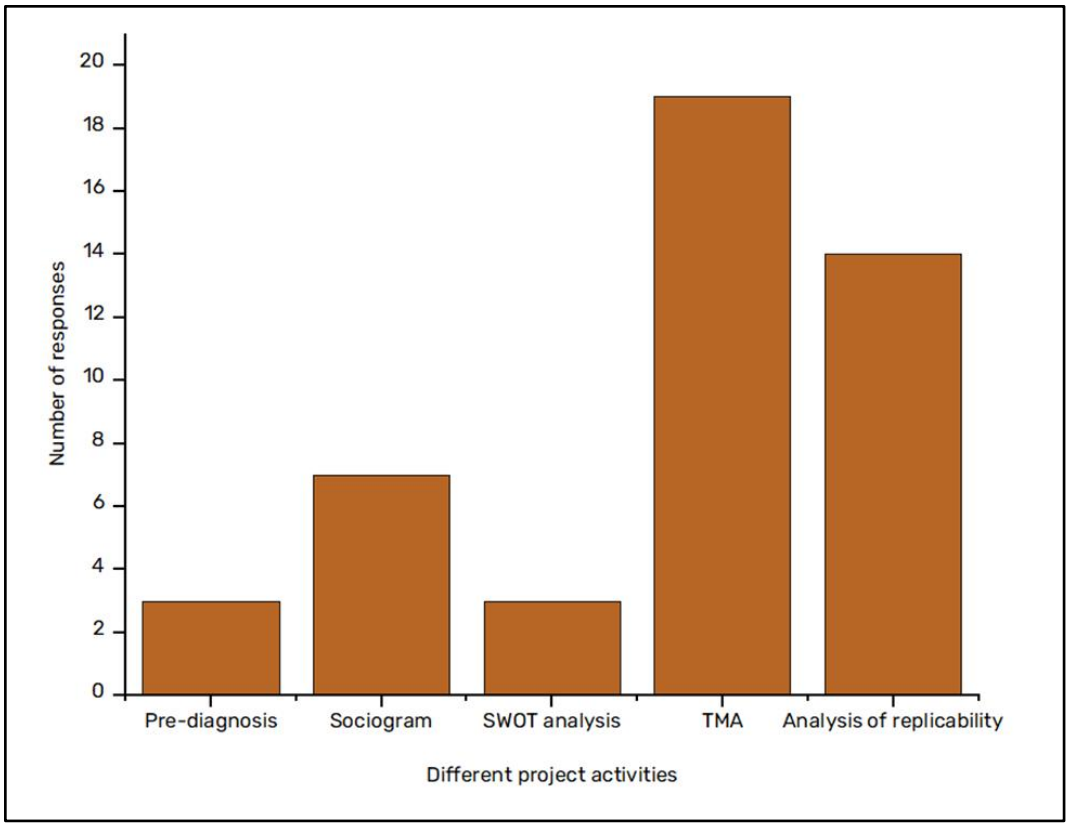

Figure 2. Project activity that needs to be supported (n=19).

The respondents expressed their opinions on the time frequency of needed support (Fig. 3), giving their preferences to every month (43%) or every two months (38%), otherwise every second week (5%). At the same time, it is important to consider the fact that the expected duration of pilot actions is 12 months.

Other requests for frequency of support included: on demand (approx. once a month); only once; or maybe 3 times during all the projects, but it is important to have periodic meetings to share experiences among the participants.

According to the respondents, the three most required forms of support are: pdf and ppt documents (32%), online meetings (32%), online and in person meetings (18 %). Besides, the participants specified other forms of support such as mail with model of TMA, or in person training.

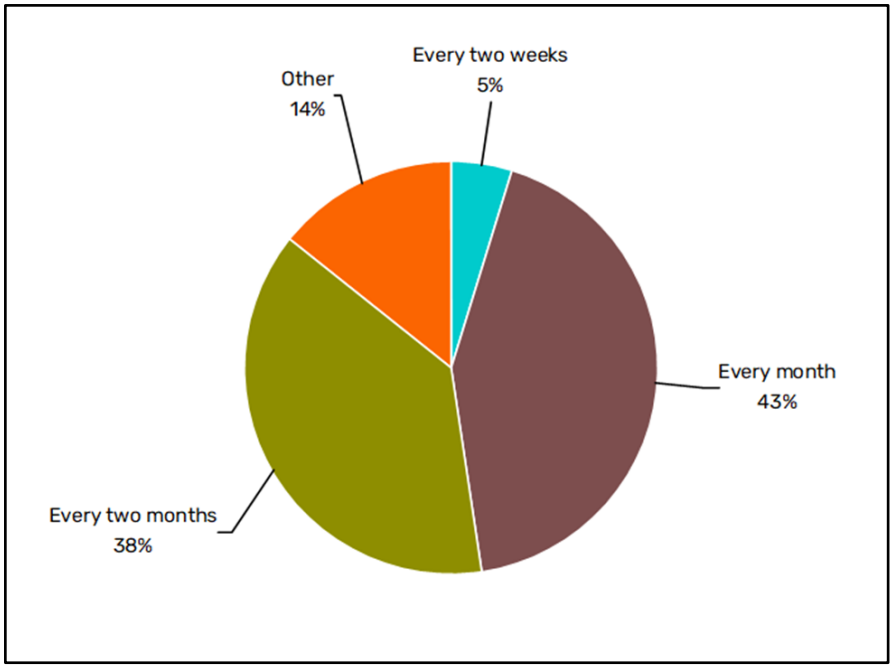

Figure 3. Frequency of the required support (n=19)

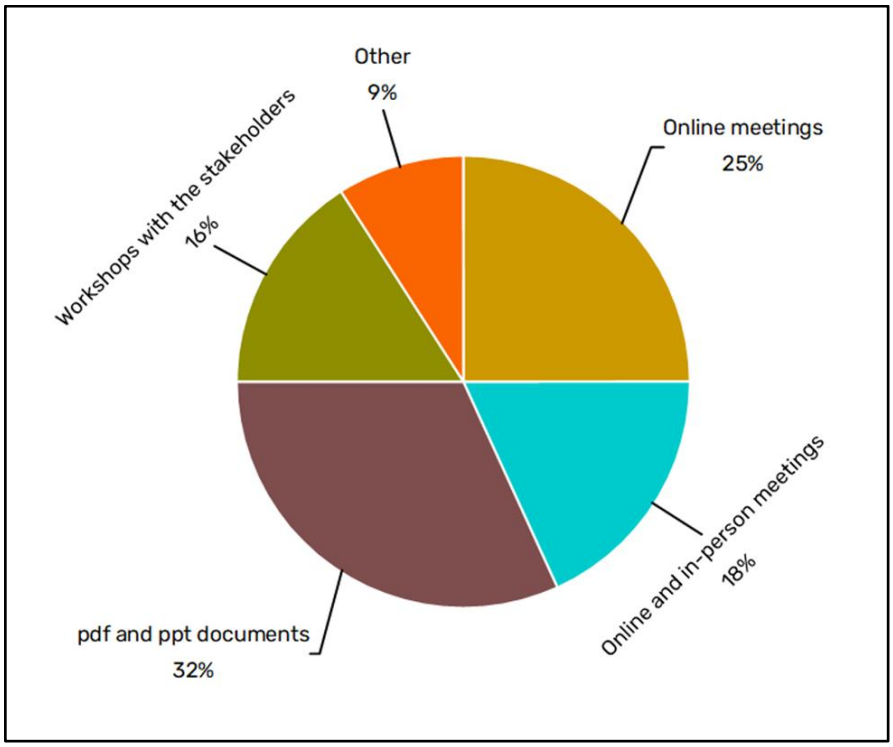

Figure 4. Forms of needed support (n=19)

As “Other support”, the respondents specified sharing documents by email (such as the model of Territorial Management Agreement) or in-person training.

4.Conclusion

The deliverable contains the assessment of the 20 winning projects' potential in terms of replicability and training needs.

According to common understanding, replication is about repeating a study's procedure and observing whether the prior finding recurs (Nosek & Errington 2020), while replicability is a key aspect of the scientific method, as it allows researchers to verify and build upon previous findings (National Academy of Science 2019).

In this deliverable, replicability is understood as an opportunity to apply the experience of the pilot projects in other similar contexts. The analysis performed provided a list of factors that might enhance replicability of the committed actions and experiences.

As far as the pilot projects represent a huge variety of different landscapes, assessing the replicability potential might be extremely useful for different communities of the EU and other countries.

To facilitate that outcome, the HuMUS consortium is providing non-monetary support to the funded pilot actions via coaching, mentoring and advisory services and will make available to the pilot projects the materials developed in WP1.

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Annex 1. Questionnaire

This is the template of the questionnaire used to survey the 20 pilot owners funded by HuMUS.

1. Project title _____
2. Name _____
3. Country _____

4. You need support for Soil analysis
   a. Local policies on soil health
   b. Stakeholders' collaboration
   c. Other _____

5. For which project activity do you need support?
   a. pre-diagnosis
   b. sociogram
   c. SWOT analysis
   d. TMA
   e. Analysis of replicability
   f. Other_____

6. Could you specify how often you will need support:
   a. Every week
   b. Every two weeks
   c. Every month
   d. Every two months
   e. Other_____

7. Which form of support would you need:
   a. Online meetings
   b. Online and in-person meetings
   c. pdf and ppt documents
   d. Support in Facilitation of the workshops with the stakeholders
   e. Other---------