



HANDBOOK FOR PARTICIPATORY WORKSHOPS IN AGRICULTURE





INTRODUCTION

Modern society increasingly demands the transformation of its food systems, including by introducing sustainable agricultural production with a low carbon footprint. Agricultural advisory service thus requires the mastery of ever-expanding fields of expertise, new approaches to its organisation and the introduction of novel knowledge transfer methods. Participatory approaches, which encourage group learning of farmers and active exchange between farmers and experts, are gaining importance. Their key advantages are mutual learning of participants, stakeholder networking and farmer empowerment for solving technological, environmental, climate and other challenges.

Participatory workshops are a knowledge transfer method which usually includes small groups of participants (from 8 to 20). Farmers, experts, researchers and advisors exchange knowledge through collective discussion and encourage each other to develop and introduce new agricultural practices. The active involvement of farmers enables local knowledge to be included in the learning process. Therefore, farmers often implement the acquired solutions more easily on their farms. In addition, interactions between stakeholders can encourage the creation of more effective and comprehensive solutions.

Successful implementation of participatory workshops requires effective planning, organization of a large number of stakeholders, appropriate moderation of the discussion and a thorough assessment of their effects. This handbook aims to help solve these challenges by providing recommendations on how to approach the preparation, organisation, implementation and evaluation of participatory workshops for farmers. We complemented the recommendations with the experience gained by conducting workshops on the handling of livestock manure on cattle farms in Slovenia. The workshops took place in the autumn of 2022 as part of the EIT Climate-KIC RIS EduEx 2022 project. They aimed to promote climate-friendly agricultural practices, which reduce nitrogen and other greenhouse gas emissions resulting from agricultural activity.





1 Objectives and target groups

Setting the goals of the workshop

A systematic approach is required to successfully and efficiently implement the workshops, which begins with defining **clear, precise and measurable educational goals**.

Workshops can address a number of different objectives:



Awareness raising and information sharing: increasing farmers' awareness of various topics, such as biodiversity conservation, environmental protection, climate change mitigation or digitization of agriculture.



Training and introduction of novel practices: to equip the participants with technological and economic information on new agricultural practices.



Creating new knowledge and finding solutions: participatory workshops with the active involvement of participants through discussions and other forms of exchange of opinions and experiences can provide an environment where new knowledge is gathered and created. Workshops of this type also enable the search for solutions and new opportunities that can be used directly on the participants' farms.



Networking and strengthening of social ties: participatory workshops are a meeting place for local people with similar interests. They thus provide farmers and other stakeholders with a good opportunity for networking.

Who? What? Why? How?
are key questions in goal
setting

Selection of the target group

The target group is determined based on the set goals. For example, if we want to inform farmers about novelties in agricultural policy or legislation that concern all agricultural sectors, we can invite a broad group of farmers. In the case of specific skills and practices, which concern a certain sector or are suitable for certain production systems, such as organic farms, we target a narrower group of farmers.

For participatory workshops, it is generally better to choose a group of **farmers who are similar to each other**, as it will be easier for them to communicate during the workshop and in the discussion. In this case, content preparation will be easier and more targeted.

Selection of the target group should be based on analysing the characteristics of the local farms, which should include their production orientation and system (organic, conventional, etc.), size, characteristics and structure of their land, and the characteristics of the farmers (e.g. age, experience, gender and education).

Content of the workshop

The content of the workshops is determined according to their objectives and characteristics of the target group. This choice is very important, as farmers are more motivated to participate and later apply the skills presented if their needs are directly addressed. The content should be interesting and relevant, so it is recommended to discuss it beforehand with farmers, agricultural advisers or other actors who know the needs of the target group well.



Case study

Objectives of the workshops 'Manure management':

1. **To inform a minimum of 250 cattle farms in Slovenia about the latest practices** for improving manure management to reduce nitrogen losses to the environment.
2. **To improve knowledge about nitrogen consumption and utilization in cattle farming** and the effects of different approaches to storage and fertilization on nitrogen losses.
3. **To raise awareness of the negative impacts of incorrect manure management** on the climate and the environment.
4. To encourage cattle farmers **to exchange experience through mutual discussion** and thus increase and speed up the adoption of the presented agricultural practices on farms.

The key objective of the workshops was to inform and train farmers on agricultural practices to improve manure management. In addition, we also wanted to increase farmers' awareness of climate change and greenhouse gas emissions from agricultural activity.

The most important source of greenhouse gases in the agricultural sector in Slovenia is cattle farming, hence we chose as the target group cattle farms that raise ten or more cattle units and operate in eastern or central Slovenia. Based on a preliminary analysis, we learned that the prevalence of recommended practices among the target group is still relatively small, but certain successful examples already exist. Based on this, we decided to use participatory workshops to encourage experience exchange between farms.

In this way, we wanted to address some of the key obstacles that prevent the faster adoption of recommended practices on farms - i.e. the lack of knowledge, experience and social acceptance of these practices.

The detailed content and the local target groups of farms were determined after discussing the objectives with local agricultural advisors. The final content was outlined by the lecturer and moderator of the workshop, who was an expert in the field of manure management and had extensive experience in training for farmers. This process significantly contributed to ensuring that the content was prepared in a relevant, locally-adapted and farmer-friendly way.



2 Organisation

Organization team

A good team and cooperation within it are the key to the successful implementation of workshops. In addition to the **main coordinator**, it is important to include a **local organiser** in the team.

Local agricultural advisors can contribute a lot to the successful organization and implementation of the workshop. Due to their frequent contact with farmers, advisors usually know the target group and their needs well, so it is important to include them already in the planning phase. Their role is also crucial during the organization of the workshop, as they know the established communication channels used by farmers. Due to their knowledge of the local area, it is also recommended to let them choose the location and prepare the venue.

If the workshop focuses on a new topic or novel agricultural practices, it is advisable to begin with a short lecture. In this case, we can also invite a **lecturer** who is an expert on the subject in question to join the organization team. Often the lecturer can also work as the moderator of the discussion in the second part of the workshop.

The **moderator** of the discussion must create conditions for the effective transfer of knowledge and experience between the participants, so the selection of this person is critical. The selection should not only be based on thematic expertise, as the moderator must also possess appropriate didactic and communication skills.

The following elements should be considered when organizing the workshop:

- Characteristics of the target group
- Objectives of the workshop
- Time and financial framework
- Teaching approach, methods and tools

We can also invite **other experts** to participate, as they can often bring a different and fresh perspective to the discussion. For example, if we organize a workshop on agricultural practices that contribute to biodiversity or environmental protection, it is recommended to invite experts from these fields in addition to an agricultural experts.



Case study



The main coordinator of the workshops on manure management was the national project manager. The coordinator led the communication with the lecturer and moderator, as well as with regional agricultural extension service units, which acted as the local organisers.



We determined the content, locations and dates of the workshops together with the local agricultural advisors. The heads of the regional extension service were then responsible for organising the communication with the farmers at the local level. Agricultural advisers participated in determining the content, inviting the farmers and providing venue and equipment for the workshop.

Time and location of the workshop

When choosing the date of the workshops, we must consider the time availability of our target group. In principle, farmers are more available in the **winter months** (November–February), when there is somewhat less work on their farms. The most optimal time for livestock farmers is usually **in the morning between 10:00 and 12:00 or in the afternoon between 14:00 and 16:00**, because farmers usually have work in the barn in the early morning and in the evening. An afternoon appointment or during the weekend is usually more suitable for people who have additional employment outside their home farm. If several workshops are organised, they should be offered in both morning afternoon slots.

The workshops should take place **as close as possible to the farms** of the selected target group (up to approximately 30 minutes drive). Parking and access for disabled and elderly people must be provided at the location. It is desirable that marking boards are put up. The room should be large enough, lit and furnished with tables and chairs, a projector and a computer for the moderator.



Case study

The workshops took place in 16 different locations, usually in the premises of the agricultural advisory service, the municipality, or local cultural institutions. By dispersing the locations throughout the area where the workshops were held, we made it easy for all invited farmers to access them. The workshops started at 10 am, 1 pm or 3.30 pm. It turned out that the most attended workshops were at 10:00 a.m., and the least at 1:00 p.m., which can perhaps be attributed to lunchtime. At 3.30 pm, the workshops were well attended, but some farmers remarked that it would be better to start a little earlier, as they have work at the farm in the evenings.





INVITATION TO THE WORKSHOP

A TITLE OF THE WORKSHOP THAT CONVEYS THE KEY MESSAGE

Dear farmers,

We cordially invite you to the workshop "Title of the workshop". The two-hour workshop will include a short introductory lecture given by (name of the invited lecturer, experts...) and a guided discussion based on the selected examples of typical farms. At the workshop, we will focus on the following practices:

- agricultural practice 1
- agricultural practice 2
-

The workshops will take place at the following locations and times (in some case several workshops will be organised at the same location):

Date	Time	Location
DD.MM.LLLL	hour	Location 1 - address and a description of the location
DD.MM.LLLL	hour	Location 2 - address and a description of the location
DD.MM.LLLL	hour	Location 3 - address and a description of the location

Registration and contacts

Please register at your local agricultural advisor to attend this workshop. You can register from Monday to Friday between 8:00 a.m. and 2:00 p.m. at the following contacts:

- contact 1, location 1
- contact 2, location 2
- contact 3, location 3

"event theme"
or "key
message"

Event invitation and communication

When preparing the invitation, the characteristics of the target group and its understanding of the topic under consideration should be taken into account. The invitation should be simple, clear and attractive. It should clearly state the aims of the workshop and what the participants will gain from participation. We should also list the moderators and lecturers, as this can attract farmers further. The date and location of the workshop and the contact person must be provided. It is best if the contact person is a local agricultural advisor that farmers are already acquainted with and trust.

We can use several different communication channels to recruit participants. Among Slovenian farmers, personal invitations by regular mail, which are supported by calls or telephone messages from agricultural advisers, have proven to be the most effective. Based on the available budget, the invitation can also be shared via websites, e-mails, newspapers, social networks, radio and local television.



Case study

We invited farmers by sending out invitations via regular mail. The invitation followed the standard format that farmers know, used by the extension service. It contained the workshop title, the participating experts, dates and locations, and the contacts of local agricultural advisers where farmers could register for the workshop. It turned out that relatively few farmers responded to the first invitation received by mail. Therefore, in the second phase, we included local agricultural advisers who invited the farmers to the workshops personally by phone. This approach to communication was more successful. In total, 248 farmers attended the workshops.



3 Agenda and implementation

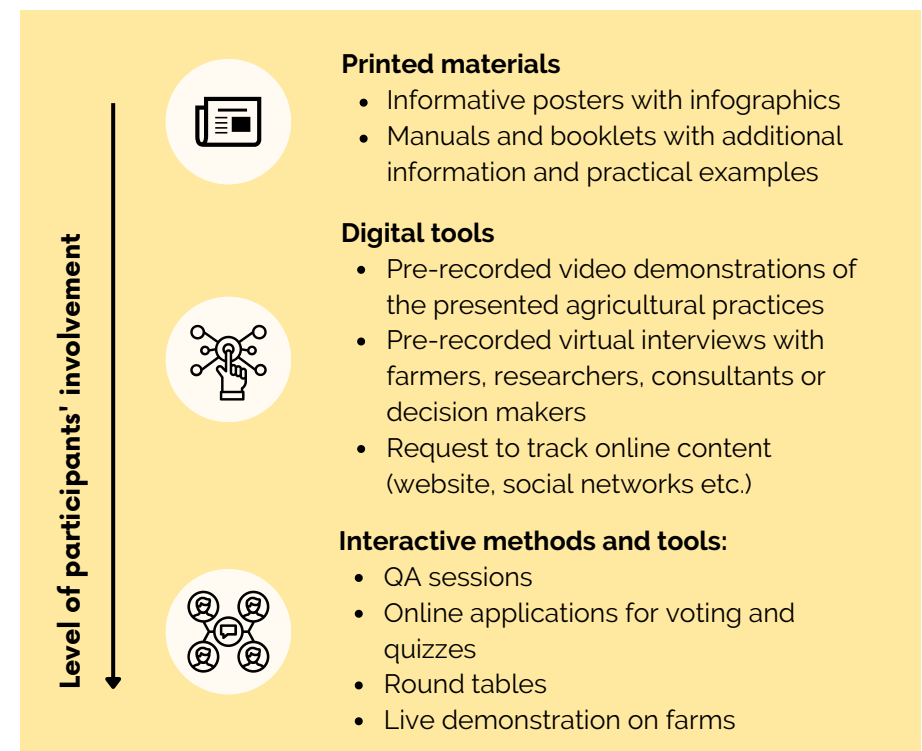
Programme and timeline

The length of the workshop is determined by its content and the methods we use. We need to realistically assess how much content we can include in the outlined time frame. From the participant's perspective, it is optimal for the program to last no more than 2 hours, with at least half of the time devoted to discussion. If the workshops are longer, it makes sense to divide them into shorter time units (up to 90 minutes), between which we provide a sufficiently long break and, if possible, some refreshments. Such informal elements increase the opportunities for socializing and networking as well as for creating a pleasant and relaxed atmosphere. If the topic is complex and more extensive, we should consider holding a series of consecutive workshops. These may take place, for example, once a week.

Key elements of a good workshop agenda:

- **Welcome address** and brief presentation of the purpose and program of the workshop.
- **Printed learning material** is handed out to participants, summarizing the content of the workshop (e.g. brochure or printed slides).
- **Introductory lecture** on the discussed topic with the inclusion of practical examples.
- **Guided discussion** with interactive questions and examples of real-world or model farm used for comparison purposes.
- **Evaluation of the workshop** by the participants (e.g. with the help of an anonymous survey).
- **Opportunities to network** (coffee or lunch break).

It is recommended to reinforce the learning content during the workshop by using various tools that can contribute to the additional motivation of the participants. The tools vary depending on the level of involvement of the participants and the financial investment. We use the appropriate combination based on our goals, budget and time constraints.



Organization and moderation of the discussion

A key part of the workshop is the discussion, which encourages participants to actively exchange knowledge and to find common challenges, new ideas and solutions. An efficient exchange and a pleasant atmosphere should be ensured, which requires an appropriate group and a well-trained moderator.

Group composition

A group of **up to 20 farmers** should take part in the discussion, as this makes it easier for them to cooperate, establish direct contact with the moderator, and thoroughly familiarize themselves with the practices presented. In a smaller group, it is usually easier to establish trust, develop in-depth discussions and achieve better final results. If more than the recommended number of participants attend the workshop, they should be divided into smaller groups.

The success of the discussion often depends on the **motivation of the participants**, which is usually easier to achieve if they come from farms with a similar production orientation and structure. It is important to find out their expectations and increase their willingness to cooperate, e.g. by asking them what they expect from the workshop. This will also help the moderator decide on which topics to pay more attention to.

Moderator

The moderator ensures the effective communication of all members of the group. They must possess expert knowledge of the topic under consideration, as well as communication and didactic skills. Their key task is to promote the involvement of all participants and to guide the discussion towards useful conclusions. To achieve this, a moderator should follow the following guidelines:

- **Impartiality:** do not impose your opinion, even if you are convinced you are right. You should get the participants to accept your point of view through an objective explanation. Do not view disagreement as personal criticism. Instead, try to discover the reasons for it.
- **A commitment to cooperation:** keep the participants' attention by allowing them to express their opinions. Do not show off your knowledge. Non-verbal communication and maintaining a lively and relaxed atmosphere are also important.
- **A sense of discussion dynamics:** ensure that the discussion does not deviate from the topic at hand. If attention drops, you can suggest a break. Decide when a constructive debate has reached its peak and thus suggest finishing it.
- **Identifying the needs and capabilities of the group:** assess the diversity of group members' backgrounds and adjust the course and speed of the discussion accordingly. You can also form subgroups with similar interests if needed.
- **Summarize the conclusions:** lead the workshop according to the set objectives. After the discussion ends, summarize its conclusions, and thus provide the participants with the opportunity to contribute to their formation. The conclusions should be written down and distributed to the participants.



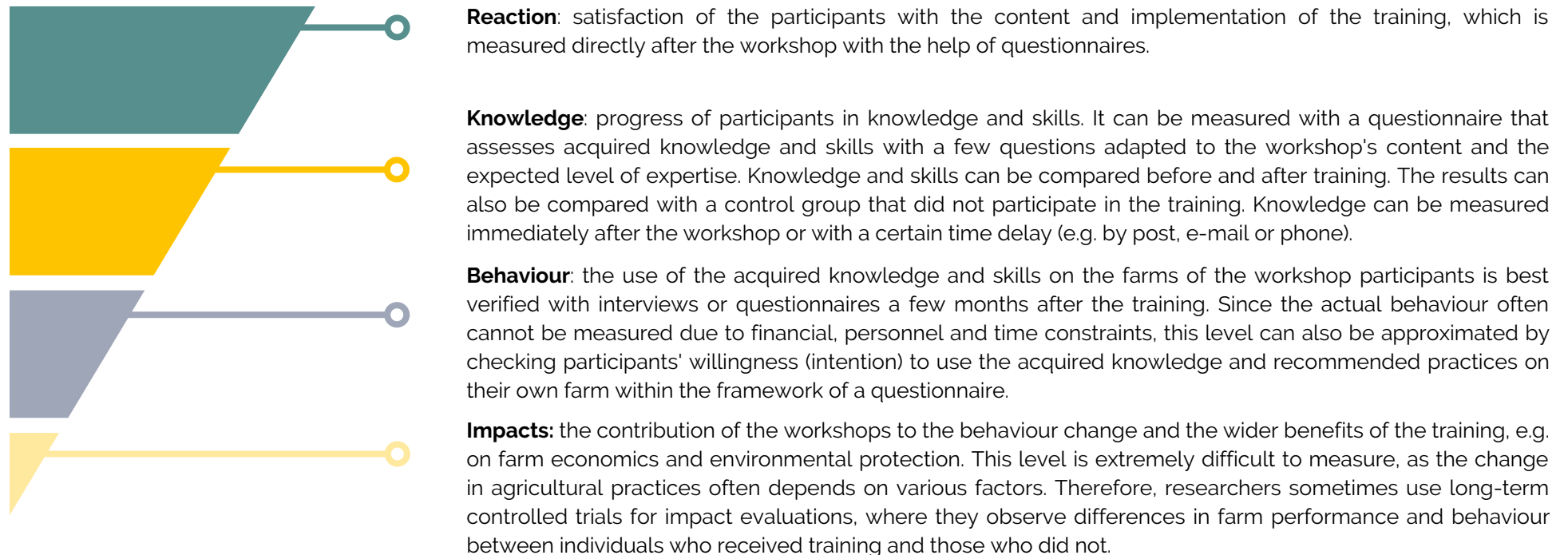


4 Evaluation and follow-up activities

Evaluation

Evaluation is often overlooked in the knowledge transfer process. However, it is crucial for improving future events and activities. The evaluation of the workshops mainly aims to assess the effectiveness of the implemented events given the set objectives. The Kirkpatrick model is one of the most established and frequently used approaches to measuring the effectiveness of trainings. Their effects can be measured at the following levels:

It is usually not possible to carry out all of the recommended levels of evaluation. However, at least certain levels should be carried out routinely, as the findings can be readily used for planning and organising of future workshops and other knowledge transfer activities.





Case study

At the end of the workshop the participants were invited to fill out a questionnaire which consisted of five parts. The first part aimed to evaluate the participants' satisfaction with the workshop. We then checked the knowledge acquired during the workshop with ten multiple-choice questions. This was followed by a section on the current behaviour of the participants in the field of livestock manure management and their intention to use the practices discussed in the workshop on their farm. The fourth part of the questionnaire included attitudes towards the presented practices and climate change. The last part contained questions about the participant, such as gender, age and education, and questions regarding his or her farm.

Example of questions about participants' satisfaction with the workshop:

In my opinion, today's workshop was:

- of high quality	completely disagree : 1 : 2 : 3 : 4 : 5 : 6 : 7 : completely agree
- useful for my farm	completely disagree : 1 : 2 : 3 : 4 : 5 : 6 : 7 : completely agree
- razumljivo	completely disagree : 1 : 2 : 3 : 4 : 5 : 6 : 7 : completely agree
- well organised	completely disagree : 1 : 2 : 3 : 4 : 5 : 6 : 7 : completely agree
- informative (I learned a lot)	completely disagree : 1 : 2 : 3 : 4 : 5 : 6 : 7 : completely agree

Since we were also interested in workshops' impact, we simultaneously conducted a randomized controlled trial in which we divided the farmers in the area into two groups. Farmers in the control group did not receive the invitation to the workshops. Instead, they were invited by mail to fill in the same questionnaire and to return it by mail to the workshop coordinator. By comparing the results between the treatment and control groups, we were able to assess the impact of the participatory workshops on the knowledge, attitudes and behavioural intention of cattle farmers.



Continuation

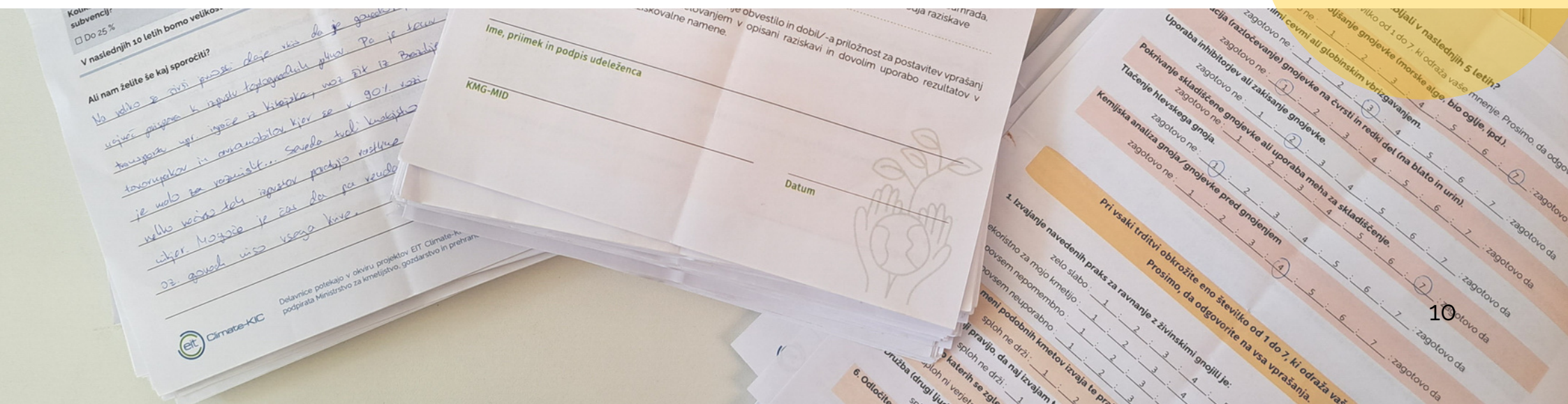
Follow-up activities relate to spreading the content of the workshop. We can organize activities for participants as well as for other farmers and stakeholders who did not participate in the workshop. Key follow-up activities:

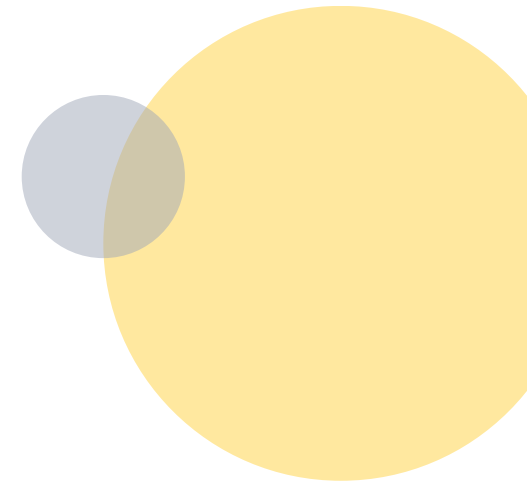
- **Preparation of informative printed materials** (brochure, handbook), where all key information from the workshop and other useful links are collected in one place for the participants.
- **Providing (group) support** to interested farmers who intend to implement the presented agricultural practices and innovations, by sharing contacts to agricultural advisors and experts.
- **Establishing an online platform** for further communication, such as online forums and closed groups on social networks, where participants can continue to share experiences with each other using the acquired knowledge or ask additional questions.
- **Sharing the news** about the workshop and its findings in the media and its dissemination among the target group.



Case study

After the end of the educational intervention, the content and findings of the workshops were distributed in the form of a short manual with a description of the discussed agricultural practices and examples of farms that implement these practices. Workshop participants and farmers from the control group received the manual and returned the completed questionnaire to us by mail.





Handbook for participatory workshops in agriculture

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