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## MED-GOLD

(Grant Agreement 776467)



Turning climate-related information into added value for traditional **MED**iterranean  
**G**rape, **OL**ive and **D**urum wheat food systems

### D1.6. Guidelines for appraising needs and critical decisions across the pilot services



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Deliverable Title	Guidelines for appraising needs and critical decisions across the pilot services	
Brief Description	These guidelines will help manage the development and interactions with the user across the three pilot services and, to a certain extent, allow a common approach in the ways we engage with, and collect information from, the users involved in the pilot services.	
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## Executive summary

This report constitutes Deliverable 1.6, “Guidelines for appraising needs, key vulnerabilities and critical decisions across the pilot services”.

The report provides a set of general guidelines for managing the interactions with the users across the three pilot services as well as a robust approach in the ways we engage with and collate the information gathered from the users involved in the pilot services.

All three pilot services teams have initiated their work in relation to user engagement required to co-develop each of the services including meetings to discuss and identify the (potential) users in each of the cases as well as start planning the engagement activities to take place in April/May 2018.

However, given the differences between the pilot services (in scope and nature of the service but also the extent to which the users and their needs have been identified), it is difficult (and potentially counterproductive) at this point in time, to develop a single prescriptive approach to be applied across all the services particularly as these also depend on a number of issues and conditions that need to be taken into account (e.g. background and expertise of the ‘users’ participating in the workshops, number of participants as well as wider logistical conditions that will influence the running of activities).

The next steps for each of the pilot services teams is therefore to continue preparatory work ahead to help us organise and the participatory workshops for WP2 and 4 as well as the development of the interview protocol (or the script for focus groups) to be pursued in WP3 (see section 7).

The University of Leeds will provide the necessary support to all three pilot services teams towards the effective development, running and collating of the information gathered from these user engagement activities in the coming months.

**With this deliverable, the project has contributed to the achievement of the following objectives (DOA, PartB Table1.1):**

No.	Objective	Yes
1	To co-design, co-develop, test, and assess the added value of proof-of-concept climate services for olive, grape, and durum wheat	x
2	To refine, validate, and upscale the three pilot services with the wider European and global user communities for olive, grape, and durum wheat	x
3	To ensure replicability of MED-GOLD climate services in other crops/climates (e.g., coffee) and to establish links to policy making globally	x
4	To implement a comprehensive communication and commercialization plan for MED-GOLD climate services to enhance market uptake	
5	To build better informed and connected end-user communities for the global olive oil, wine, and durum wheat-products' systems and related policy making	x

## 1. Introduction

This report constitutes Deliverable 1.6, “Guidelines for appraising needs, key vulnerabilities and critical decisions across the pilot services”. The focus of this report is to provide a set of general guidelines for managing the interactions with the users across the three pilot services as well as a robust approach in the ways we engage with, collate and integrate the information collected from the users involved in the pilot services.

A common approach will be developed regarding the methods to engage with the users across the three pilot services (e.g. interviews, workshops), as well as common areas of enquiry that will allow a comparative analysis across these regarding their climate information needs and critical decisions (T2.1, 3.1 and 4.1). The main findings from T2.1./3.1./4.1. will help inform T1.3. on the assessment of the sectors’ vulnerabilities, critical decisions and information needs (Figure 1).

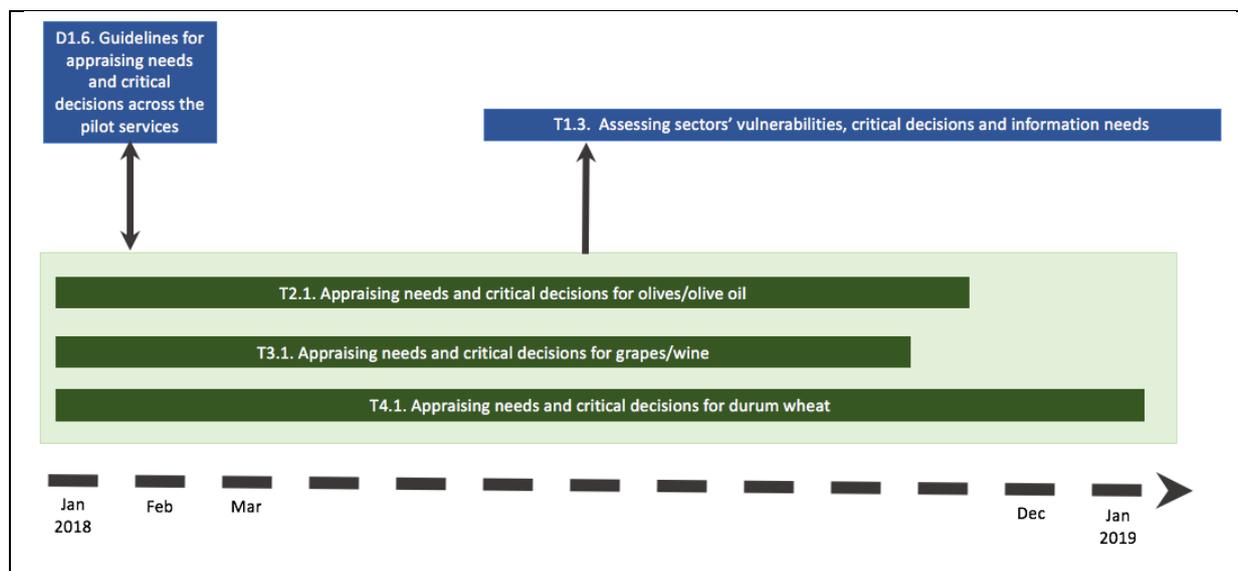


Figure 1 – Timeline and linkages between these guidelines and forthcoming tasks.

## 2. Common areas of enquiry across all pilot services

The appraisal of users' needs, their key vulnerabilities and critical decisions across the three pilot services (i.e. T2.1./3.1/4.1.) will be performed within the first 12 months of the project (see Figure 1). Each work package developing the pilot services – WPs 2, 3 and 4 – will engage with different sectors and end-users and, thus different decision contexts and climate information needs. Nevertheless, there are common areas of enquiry that are expected to be covered by all three WPs in order to allow the collection of common information across the pilot services. This will allow us not only to implement a common approach in the collection of information but also the possibility of using those findings when engaging the wider Med-Gold community in WP5 as well as help inform the assessment of the sectors' key vulnerabilities and critical decisions in T1.3. (Figure 1).

As such, there are a number of common topics that will be explored during T2.1./3.1./4.1. These will be explored during the workshops and interviews and include:

- 1. Gather information on the key vulnerabilities of the sectors' activities and operations in relation to weather and climate conditions;**
- 2. Understand the key decision-making processes of the users involved;**
- 3. Gather information on current use of weather and climate information of the participants/organisations;**
- 4. Understand how can climate information be improved (or created) to better fit/support the decisions at hand;**
- 5. Gather information on current and future climate information needs including existing information gaps.**

These are the critical topics that will be the focus of the engagement activities in the coming months. However, time permitting, other areas of enquiry could also be explored during the engagement with the users e.g. similarities of critical decisions in other organisations, other organisations that could potentially join the Med-Gold community, etc.

At the time of this report, all three WPs responsible for developing the pilot services – WPs 2, 3 and 4 – had already pursued initial discussions regarding the end-user(s)



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of the pilot service and next steps in terms of engaging those users to inform the development of the service in the coming months.

The sections below describe the main objectives of the three pilot services, the information already collected and proposed next steps.

### 3. Information gathered to date regarding the pilot services users

#### 3.1. Olive/olive oil sector

The olive/olive oil pilot service is covered in WP2, led by NOA and has DCOOP as the industrial co-leading partner. The main objectives of this pilot service include:

- Develop a pilot climate service application (i.e., the tool) with focus on olive yield and fruit infestation by the olive fly (*Bactrocera oleae*) that will be driven by climate data;
- Assemble a data set of historical and near real time weather data from ground-based observations and satellite data;
- Assemble a climate model data set including seasonal climate forecasts and climate change projections under two different climatic scenarios.

DCOOP is a second-degree cooperative that groups 110-112 first-degree cooperatives in different locations in Andalucía and Extremadura (Spain). DCOOP is divided into 7 agro-food sections and one of them is devoted to olive oil. It is important to keep in mind that there is another section for wine, which can be useful at some point regarding other tasks in the project (related to the wine crop). All sections share the same I+D department, which is in charge of knowing each section's needs and developing the business innovation. The main role of DCOOP is to provide services to the cooperatives in terms of both supplies (fertilizers, fuel, farm machinery...) and product exportation. In this case, the final end-user for the pilot service would be the individual farmers working out on the fields. However, as it is not feasible to contact all of them for the purpose of the MED-GOLD project, we could consider the technicians (i.e. agronomists) from DCOOP that work in the field as final users, as they provide advice to farmers regarding crop management. DCOOP provides first-degree cooperatives with agronomist services, although some cooperatives have their own agronomists as well. In order to ascertain the possibility of developing the pilot service based on DCOOP's decision-making processes and climate information needs, an internal meeting took place in January 2018. At the meeting, a number of DCOOP's departments were represented and the discussion



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revolved around key topics to help us identify which departments could benefit the most from this service (Table 1).

Table 1 – DCOOP departments currently using weather and climate information.

Departments currently using climate information	Technical field	Supplies	Quality	Research and innovation	Production and commercial
<b>What climate information do they currently use?</b>	Weather/sub-seasonal forecasts (7 to 14 days)	Weather forecasts	Weather forecasts/seasonal/sub-seasonal	seasonal forecasts (also plan to use long-term projections but currently these are not used)	Seasonal forecasts
<b>How do they use the information?</b>	Technical field department uses the forecast weather for the next 7-15 days in order to manage the harvest and advise to our farmers about their crops	Supply department uses the forecast weather for the next 7-15 days to manage the resources which they offer to our farmers.  For example, until the first autumn rain, the farmers should not carry out certain agricultural practices.	Correlating physical-chemical parameters of end products (oil and table olives) with climate. We have identified some parameters which change depending on the weather data. If we understand the correlation better, we could obtain products with higher quality.	Assists other departments with their needs from research. For example, understanding climate change	Uses climate data to predict the olive yield for the next season.
<b>Could that climate information be improved and/or additional climate information be provided</b>	<u>Productivity in the field:</u> DCOOP has 22-25 agronomic technicians who advise farmers about best practices in the field. A forecast of climate conditions		<u>Global quality rate</u> (in olive oil)  The largest producers (companies and cooperatives) have got an equation for classifying olive oil produced. This rate keeps several parameters in mind, which are affected		



Departments currently using climate information	Technical field	Supplies	Quality	Research and innovation	Production and commercial
<p><b>to better support decision making process? If so, how could it be improved?</b></p>	<p>could improve their management of crops.</p> <p>Supplies department: if this department had some weather/seasonal predictions, they could plan the fertilizer season better.</p> <p><u>Pest olive fruit fly:</u></p> <p>Periodically, DCOOP’s agronomists control the evolutions of the different pests in the fields through the insect traps for insect or direct observation in fields (I believe 1 control field is used for 300 has). The pest forecast will assist them with this task because they can reduce the inspection areas and focus on vulnerable areas.</p> <p>The supplies department would benefit from information on the state of the pests. For example, they could offer the best phytosanitary products regarding the evolution/kind of the pests.</p>		<p>by climate change, hence the equation will change in the future according to climate and other causes.</p> <p>DCOOP has got a laboratory where they analyse the olive oil and table olives from whole DCOOP.</p> <p>In summary, we would assess physical, chemical and sensitivity parameters in olive oil. We could correlate this analysis with climate data and historical data of olives from DCOOP in order to identify the switches in olive oil (for instance, the composition, or some parameters or taste). In other words, use the olive oil as a Climate Change indicator.</p>		
<p><b>How exactly would that improved climate information benefit that decision process?</b></p>	<p>Better management of crops (time of irrigation, fertilizing, apply pesticide, harvesting)</p> <p>Understanding the effect of climate</p>	<p>Better management of crops (time of irrigation, fertilizing, apply pesticide, harvesting)</p>	<p>Better management of industrial processes (olive facilities will predict the amount that olives will process)</p> <p>Better quality end products</p>	<p>Adapting to climate change</p>	<p>Better management of industrial processes (olives facilities will predict the amount that olives will process)</p>



Departments currently using climate information	Technical field	Supplies	Quality	Research and innovation	Production and commercial
	on olive products Adapting to climate change				
<b>What kind of added value would improved climate information bring to the department/DCOOP?</b>	<ul style="list-style-type: none"> <li>• <u>Reducing cost</u>: we think if the olive sector had a model, it would be able to plan all processes and reduce costs by reducing mistakes in the value chain.</li> <li>• <u>Improving the quality</u>: the olive oil produced by olive mills can be virgin extra, virgin or “lampante” (the latter must be modified by a chemical process and cannot be named “virgin”). The price olive oil in the market is: Virgin Extra &gt; Virgin &gt; “Lampante”. For this reason, if MedGOLD provides models which can help predict pests and climate conditions, the farmers and cooperatives could improve the management of their products. Therefore, they will produce more virgin extra with a higher value. We believe the olive sector will produce more virgin extra and less “lampante” by using the MEDGOLD models.</li> </ul>				

### 3.2. Grape/Wine sector

The grape/wine pilot service is covered in WP3, led by BSC with SOGRAPE as the industrial co-leading partner. In this case, the original idea has been to develop the service around SOGRAPE’s needs and decision-making processes as a way to “(...) strengthen the efficiency and sustainability of the Mediterranean wine industry in their seasonal- and long-term business strategies using the best information from seasonal climate predictions and long-term climate change projections in a co-production process, with a special focus on the Portugal’s Douro Valley, home of Port and Douro wine appellations.”

SOGRAPE process managers were identified as the main users to be engaged in the development and testing of the pilot service. An internal evaluation of the key decisions that are affected by weather and climate conditions was pursued. This helped identify which areas the pilot service can focus on in order to improve the decisions at hand (see Table 2).

Table 2 – Key processes of decision-making in SOGRAPE that are influenced by weather and climate conditions.

<b>Key decision-making processes</b>	<b>Description</b>
<b>Choice of region and site at plantation</b>	Region and plantation site will condition a vineyard's efficiency and the sensory expression of the resulting wines. This process entails strategic decisions that impact economic outcomes for several decades and cannot be changed without losing the initial investment.
<b>Choice of grapevine variety at plantation</b>	Grapevine varieties are a major driver of wine taste, conditioning consumer preference. Furthermore, different varieties give different metabolic answers to different climates accounting for adaptability or lack thereof. Thus, choosing a correct variety is a factor for both cost efficiency and market acceptability of resulting wines. Choice of variety is meant to last the life of the vineyard (decades), but may be changed by overgrafting. However, this latter is an expensive operation to be used only as a last resource.

<p><b>Choice of rootstock and variety clone (genotype) at plantation</b></p>	<p>In Europe, because of an endemic pest (<i>Phylloxera</i>), all grapevines are made of two plants grafted on one another. The lower one, responsible for rooting is called the rootstock and generally belongs to species from America which resists the pest. The upper plant, from the European species <i>Vitis vinifera</i> is called scion and is responsible for grape production and the taste of wine. Scions belong to varieties and may comprise several genotypes belonging to each single variety that behave in different ways regarding specific traits (productivity, sugar levels, heat resistance, etc.). Choice of rootstock is meant to last the life of the vineyard (decades), while the clone may be changed by overgrafting. However, overgrafting is an expensive operation to be used only as last resource.</p>
<p><b>Grapevine trellis training</b></p>	<p>Trellis is the structure that holds the grapevine and training is the way a trellis allows the vineyard to develop its vegetation. Both are highly dependent on the climate and soil characteristics of the site and are usually regarded as strategic decisions. They may, however, be changed, if necessary during the vineyard's lifetime, but with very high costs of investment.</p>
<p><b>Setting harvest dates</b></p>	<p>Within the wine value chain, the moment of harvest is the single stage when value increase is highest. As, setting the date to pick grapes will impact grape quality, this operational decision needs to be made with great care. There is a single harvest per year and a poorly chosen date (quality- or weatherwise) will decrease the resulting value of the wine.</p>
<p><b>Maturation control planning</b></p>	<p>Maturation control consists of picking grape samples from each vineyard area and assessing its composition and taste. By following their weekly evolution, it is possible to forecast the ideal harvest date. Climate may impact greatly on sample picking and maturation results.</p>
<p><b>Management of input stocks</b> (products, consumables, etc.)</p>	<p>Stocks for plant protection products, fuel, water, etc. are needed to make possible timely interventions in the vineyard. Low stocks require a capacity to buy inputs quickly when they are needed. Because, these situations often affect several growers in a given area, increasing demand will raise prices. Conversely, storage of surplus stocks is costly and may incur in losses if supplies become obsolete or if their validity expires.</p>
<p><b>Management and planning of farming operations</b> (pruning, canopy)</p>	<p>Vineyard operations require skilled labour and need to be performed timely in function of grapevine biology, pathogen or weather pressure. Usually, all three concur to make impossible an optimal management being necessary to</p>

management, spraying, etc.)	decide on which balance and or compromise to achieve.
<b>Machinery management as a function of planned operations</b> (location, acquisition, subcontracting)	Farming machinery is a factor of operational efficiency. The choice between acquisition, subcontracting or location is often a function of the estimated machine usage forecast, itself a function of operational planning.

### 3.3. Durum wheat sector

The durum wheat pilot service is covered in WP4, led by JRC with BARILLA as the industrial co-leading partner. The idea in this case is to develop a pilot case study for seasonal forecast of durum wheat yield, risk of pests and diseases; farmer oriented decision process to define and apply better agro-management plans; and an assessment of potential long-term scenarios to contribute to designing paths for sustainable developments in the field.

A WP4 meeting took place in Bologna on January 2018 where it was agreed that the best way forward would be to organize a workshop with durum wheat producers and ‘elevators’ (i.e. cooperative of farmers) in order to help us understand the wider decisions and activities at hand. In addition, it was also agreed that:

- The workshop will take place at Horta - Azienda Agricola Ca’ Bosco (RA) on the 16<sup>th</sup> of May;
- It will be in Italian to attract more participants in the regions of interest;
- The workshop will be restricted to 20-30 selected end-users (tbc);
- The invited end-users will be ‘elevators’ and farmers working with Barilla-Horta;
- It was decided that it is important to let participants describe their activity and their experiences. It was agreed to leave the discussion as open as possible;
- Furthermore, it was agreed to organise a separate meeting (the 15<sup>th</sup> of May) with breeders, technical experts and policy-makers from regional public bodies;



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- Three areas of interest (to test the prototype) have also been identified: northern, central and southern Italy. The other spatial scales, i.e. the Mediterranean and the global ones, will have less priority;
- Finally, participants discussed available/to be made available data and about their modelling systems/tools (JRC, HORTA, CNR and NOA). The integration of an extended version of the Delphi modelling tool (able to use long-term weather forecasts) with the DSS of HORTA ([granoduro.net](http://granoduro.net)) has been also proposed.

#### 4. Developing the workshops structure and interview protocol

In the coming months, each of the pilot services will engage with relevant users in order to identify their key vulnerabilities, critical decisions and understand how the different pilot services can be developed to help users improve their decisions and operations (Table 3).

Table 3 – Summary of the forthcoming engagement activities with the users across the pilot services.

WP and pilot service	Engaging method	When	Partners involved	Participants	Aim
WP2 Olive/ olive oil	Workshop	May/ June 2018	DCOOP BSC GMV EC2C	20-25 agronomists/ field technicians working in DCOOP	Discussions around the productivity, quality and pests and how agronomists operate and inform the farmers on the ground
WP3 Grape/ Wine	Interviews or focus groups	April/ May 2018	SOGRAPE UNI LEEDS	7 or 8 process managers at SOGRAPE	Further understand the vulnerabilities of the different processes already identified, the critical decisions at hand and how the pilot service can help them improve their activities and outputs.
WP4 Durum wheat	Workshop	May 2018	BARILLA JRC HORTA	20-30 'elevators' (i.e. cooperative of farmers) and farmers	Understand their activity and experiences. It was agreed to leave the discussion as open as possible

Given the differences in current knowledge and understanding of the users' needs across the three pilot services as well as the different scope and aim of these services, it is difficult (and potentially counterproductive) to develop a single prescriptive approach to be applied across all the services particularly as these also



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depend on a number of issues and conditions that need to be taken into account, including:

- Number of participants attending the workshops/interviews;
- Background and expected mix of expertise and background amongst participants regarding their area of expertise (and knowledge on how weather/climate influences their operations);
- Amount of time available to run the workshops/conduct the interviews;
- The roles of the workshop organisers (chair of the workshop, facilitators, note takers, etc);
- The expertise of the facilitators in the subject matter and their experience in running workshops;
- The 70/30 rule in workshops: 70% participant activities; 30% facilitator presentation (and/or breaks);
- Space available to run the workshop (e.g. to accommodate participants, disposition of chairs in the room, material such as projectors, flipcharts, etc);
- Catering services available;
- Workshop agenda and the possibility of sending (or not) a workshop 'briefing paper' to help participants prepare ahead of the session (particularly if time to deliver the workshop is constrained), and as a means of managing participants' expectations.

All of these factors (and others) will influence how the workshops and interviews should be structured and organised in terms of the type of sessions (e.g. world café, active listening, matrix scoring, interactive sessions vs presentations, etc) and the conditions necessary to run it (e.g. how many facilitators are required, time available to run the workshop/conduct interviews, the type of material required, etc).

As such, and given that the pilot services teams are currently in the process of discussing and deciding on some of the aspects listed above, the University of Leeds will help the teams develop the structure and content of the participatory workshops to be pursued in WP2 and 4 in the coming weeks.

In addition, the University of Leeds, together with SOGRAPE, will develop the interview protocol (or the script for focus groups if this method is deemed more



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efficient than individual interviews) to be conducted with the process managers within SOGRAPE at the end of April/May.

## 5. Some considerations on participatory workshops

This section covers some basic aspects that should be considered and addressed when organising a participatory workshop. Although not comprehensive this section aims to provide some general ideas of the aspects and issues that each of the pilot teams will have to consider ahead of the workshops.

### 5.1. Preparing for the workshop

The workshop facilitators play an essential role in steering the group discussion and ensuring that everything runs on time according to the agenda. As a facilitator, it is important to be aware – to watch, listen and learn. Be vigilant of group dynamics and observe where some participants are perhaps dominating the conversation, while others are quieter and perhaps unwilling to express their opinions. Such instances require careful facilitation to ensure that the dominant participant(s) still feel valued in expressing their views, but steering the focus of the conversation back on track or creating opportunities for others to speak (whilst not making them feel pressured to talk if they do not want to). This is really an exercise in ‘interactive equality’, where the aim is not necessarily to give equal air time, but a fair opportunity to talk and contribute to the groups’ discussion (Chambers, 2002).

Actively creating opportunities for turn-taking is one approach – e.g. ‘let’s hear from someone else’. The interactive sessions of the workshop could provide another means of mediating group dynamics, for example, you could place the more dominant speakers in one group.

There are a number of aspects that the **facilitators need to ensure ahead of the workshop** including:

- Ensure you have all the material needed to run the workshop (e.g. stationery material, laptop and projector, etc) although this will depend on what type of interactive sessions will be pursued;
- Prepare the room with time: arrange the tables and chairs as necessary; distribute stationery material (post-its, pens etc.);



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- Have a register form so that participants sign it as they come in (make sure they do!). This include their name, organisation, country, email contact and if they wish to be part of the Med-Gold mailing list. A template for a register form is included in Annex 1.
- Check that catering will be delivered on time;
- Set up laptop and facilities for projecting PowerPoint presentations and upload presentations;
- Check that the location to the workshop is clearly 'sign-posted' in the building.
- Provide background information about the project ahead of the workshop so participants are aware of the project and its aims.

## 5.2. During the workshop

The workshop facilitators should be the first to give a brief and informal welcome and introduction to the day. This is an opportunity to outline some logistics (e.g. location of toilets, fire drill procedure etc.) before going into the group introductions.

The next step is the 'Getting to know each other'. There are a range of activities to introduce participants that can not only help familiarise the participants with the organisers (and vice versa), as well as with one another, but can also serve as a means of easing participants into the workshop and activities ahead. This is an opportunity to set the tone for the workshop and ensure that participants feel welcome and that this is an environment where they can talk openly about their experiences and opinions.

In shorter workshops (i.e. 2 hours) we advise you to use the standard introductions around the table and just ask them to say their name, and the organisation they come from. In longer workshops, participants can also be introduced by asking not only their name and organisation but also a brief explanation of their interest in the workshops (and possibly their expectations for the day).

Following from the introductions the participants should be made aware of the structure of the workshop (this can be made by showing a slide with an agenda for the day) and a short presentation on the Med-Gold project (covering also issues of data confidentiality).



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Following from this, the workshop will go into the interactive sessions which is where the key topics (see section 2) will be explored and discussed amongst participants. These interactive sessions will be developed in the coming weeks between the pilot services teams and the University of Leeds who will provide support in the preparation of the interactive sessions.

It is important to leave enough time at the end of the workshop for 'wrapping-up' the day's discussions. It is advisable to nominate one of the facilitators ahead of the workshop so that they can make some notes throughout the day and summarise the main themes/findings from the day's discussion. This should take 10 minutes to complete. Beyond the main 'take home messages', organisers should reiterate the value of the workshop and how participants' contributions will be used within the Med-Gold pilot services project.

To facilitate reflection from participants, a feedback form for participants to complete at the end of the workshop can also be used to give them an opportunity to reflect on what they may have learned from the day and provide us with further comments/suggestions regarding their sector/pilot service/the Med-Gold project.

Participants may also be interested in receiving a summary of the workshop findings and, as such, we advise the organisers to take notes from the various workshop sessions (e.g. feedback from the discussion groups, questions asked, etc) in order to prepare a summary to send to participants after the workshop. We advise partners to make a summary of the notes taken during the workshop (by the facilitators) and circulate this to the participants as a token of appreciation for their contribution. We don't provide any particular structure for producing this summary but, as a rule of thumb, it should include an introduction (to the Med-Gold project and the workshop), content and agenda of the workshop, participants (just the name and organisation) and the main findings and group discussions for each of the sessions that took place during the workshop. You should also include next steps for the project i.e. what we're doing with the findings for the workshop and the next stage of the project (you can also ask again if they wish to continue being involved in the project in case they haven't done so already through the workshop register form – see Annex 1).

## 6. Collating the information from the workshops and interviews

After the workshops and interviews, it is important to collate the information gathered in a consistent manner in order to synthesise and organise the information gathered to help support the development of the pilot services as well as to inform Task 1.3. (see Figure 1). As such, we will ask partners to integrate the information collected in a database for summarizing the data collected particularly regarding the key topics identified in section 2.

We developed an online Excel spreadsheet which you should use to compile the information gathered after the workshops and interviews (see Annex 2).

**However, please note that this structure will most likely change in order to adapt and better collect the information coming from the workshops' interactive sessions as well as the interviews questions which will be developed in the coming weeks.**

We will update this spreadsheet in due time and, if necessary, a webinar with partners can be arranged to explain how to summarise and integrate the information collected.

## 7. Next steps

In the coming weeks, all pilot services will continue the preparatory work ahead of the user engagement activities in April/May. This will include ongoing meetings within the teams to discuss and prepare the engagement activities, including (not in any order):

- Identify and select the ‘users’ to be involved in the development of the pilot service and in this initial engagement activities;
- Ensure that the ‘users’ identified to take part of these engagement activities:
  - a) have knowledge in the area/topic of interest;
  - b) make decisions (and can act upon and change that decision) based on (or potentially informed by) climate information; and
  - c) can potentially benefit from the pilot service by making use of it to inform/adapt/change that decision(s);
- Invite workshop participants and schedule interviews/focus groups;
- Develop the scope, structure and contents of the participatory workshops (WP2 and 4) as well as the interview protocol (or script for focus groups if deemed more effective than individual interviews; WP3);
- Prepare the necessary consent forms that will need to be signed by participants during the workshops and interviews (the Uni of Leeds will prepare this);
- Prepare material for running workshops including venue, logistics, facilitators, stationery materials, etc;
- Ensure the activities planned are aligned with strategic aims of the Med-Gold project as well as the information required to develop each of the pilot services;
- Finalise the draft structure for collating the information gathered during the engagement activities (see Annex 2).

## References

Chambers, R. (2002). *Participatory workshops: a sourcebook of 21 sets of ideas and activities*. Earthscan.



## ANNEX 2 – Draft structure to collate the information gathered during the engagement activities

Workbook\_common structure for collecting information.xlsx ☆

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	A	B	C	D	E	F	G	H	I	J	K	L
1	<b>Information collected during users' engagement in WP2 - olive and olive oil sector</b>											
2	<b>Med-Gold partner</b>	<b>Type of engagement activity</b>	<b>Date of the activity</b>	<b>Name of participant</b>	<b>Participants' organisation</b>	<b>Key vulnerabilities of the sector</b>	<b>Key decision-making processes (DMP)</b>	<b>Influence (negative/positive) of weather and climate on DMP</b>	<b>Current use of weather and climate information</b>	<b>Who are the actors involved in the chain of information?</b>	<b>How can that climate information be improved?</b>	<b>Current and future needs regarding climate information</b>
3	<i>Name of partner inputing this information</i>	<i>Interviews, workshops, etc</i>	<i>Date when workshop/interview was conducted</i>	<i>Name of participant</i>	<i>Name of organisation</i>	<i>Describe key vulnerabilities of the sector (includign in relation to climate)</i>	<i>Key decision-making processes in the sector</i>	<i>Key decision-making processes affected by weather and climate</i>	<i>Which weater and climate data is currently use in their operations and activities?</i>	<i>How does weather/climate information travels within the organisation?</i>	<i>How can the climate information be iproved (or created) to better address the DMP?</i>	<i>What other information needs do they have?</i>
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WP2 - Olive & olive oil WP3 - Grape and wine WP4 - Durum wheat



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