Training Report

Regional training on the Sustainable Management of Olive Oil Mills' Waste

(REG-3)

Mentioned in approved Work Programme as

'In depth examination of the management schemes for waste from food industry, particularly olive oil mills'

(This activity is also linked to P2P-5 and WEB-3)

4-7 December 2017

Athens, Greece

Version	Document Title	Author	Review and Clearance
1	Training Report: Regional training on the Sustainable Management of Olive Oil Mills' Waste (REG-3)	Juan Vilar Kostas Chartzoulakis Giorgos Kontaxakis	Michael Scoullos

THE SWIM AND H2020 SUPPORT MECHANISM PROJECT (2016-2019)

The SWIM-H2020 SM is a Regional Technical Support Program that includes the following Partner Countries (PCs): Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, Palestine, [Syria] and Tunisia. However, in order to ensure the coherence and effectiveness of Union financing or to foster regional co-operation, eligibility of specific actions will be extended to the Western Balkan countries (Albania, Bosnia Herzegovina and Montenegro), Turkey and Mauritania. The Program is funded by the European Neighborhood Instrument (ENI) South/Environment. It ensures the continuation of EU's regional support to ENP South countries in the fields of water management, marine pollution prevention and adds value to other important EU-funded regional programs in related fields, in particular the SWITCH-Med program, and the Clima South program, as well as to projects under the EU bilateral programming, where environment and water are identified as priority sectors for the EU co-operation. It complements and provides operational partnerships and links with the projects labelled by the Union for the Mediterranean, project preparation facilities in particular MESHIP phase II and with the next phase of the ENPI-SEIS project on environmental information systems, whereas its work plan will be coherent with, and supportive of, the Barcelona Convention and its Mediterranean Action Plan.

The overall objective of the Program is to contribute to reduced marine pollution and a more sustainable use of scarce water resources. The Technical Assistance services are grouped in 6 work packages: WP1. Expert facility, WP2. Peer-to-peer experience sharing and dialogue, WP3. Training activities, WP4. Communication and visibility, WP5. Capitalizing the lessons learnt, good practices and success stories and WP6. Support activities.

Disclaimer:

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1 RATIONALE

Olive Oil is undoubtedly the “trademark” product of the Mediterranean region and supports a large number of people working both in agriculture and industry, with direct and indirect links with gastronomy and tourism. Therefore, the economic and social importance of the olive-oil sector is extremely important for the region. **Olive mill waste is an old standing environmental problem because it is responsible for acute pollution of a large number and variety of aquatic and terrestrial ecosystems, directly affecting the scarce water resources and soils of the Mediterranean region and the marine environment.**

Despite the fact that many efforts have been invested in addressing the problem, the progress made until now is rather modest. This is due to the inherent complexity of the issue which stems from a combination of many factors, including:

- insufficient technological solutions of reasonable cost,
- insufficient legal-institutional frameworks at national level,
- low prices of olive oil in the international market

The latter of the three above factors is the result of the large scale centralized production by some countries (e.g. Spain) versus the considerable, yet fragmented, production of many small family-run artisanal agro-industrial units dispersed in most of the region which lack knowledge and capacities/means on many crucial levels and issues:

- the level of the farmers and primary production modes
- the level of the oil mills and their function
- the packaging and marketing of the products
- the various modes of treatment, valorization and disposal of waste.

The Horizon 2020 Initiative for a Cleaner Mediterranean, in its first phase 2009-2015, recognized the problem and the needs of the PCs and via the CB/MEP project dedicated several national and regional capacity building workshops in examining and sharing good practices on olive mill waste management. Notably, the most important was the Regional Workshop held in Athens, at the UoA, in 2012, reviewing the different waste treatment techniques, alternative options and uses including new valorization opportunities by utilizing the waste as valuable raw material in the food and bio-chemical industry.

The present regional capacity building activity, requested by many countries of the region, intended to go further, inform in depth on successful management schemes, including state-of-the-art technologies of different scales with emphasis on innovative low-cost ones, semi-industrial waste valorization initiatives and sharing of experiences on policy – regulatory frameworks introduced in countries of the region.

The regional training and the Peer-to-Peer exchange that was launched, integrated and capitalized also on relevant national activities run under the Expert Facility supported by the SWIM-H2020 SM project.

The aim of the training activity was to provide valuable insight into the best available technologies and practices dealing with the management of olive mill waste and the valorisation of olive pomace and other waste, that could reduce acute pollution of waters, benefit thousands of olive oil producers of the Mediterranean region and create new jobs for young people allowing many of them to remain and work near their places of origin. Minimization of water consumption and the minimization/prevention of waste generated was a core principle of the approach.

2 OBJECTIVES OF REG-3

The overall aim of the CB activity and the field visit in the framework of the regional activities on Industrial Waste Management was to bring key stakeholders from the participating countries together with selected experts and provide a high-level training, which included trainings/workshops, exercises and discussions combined with a field visit focusing on management of olive oil mill waste.

The specific objectives of the activity were to:

- Introduce to the participants an integrated approach for sustainable management of olive oil waste at local level based on state-of-the-art technologies and best practices;
- Visit at least one state-of-the-art olive oil waste management facility with particular emphasis to small scale units;
- Provide the participants with a complete/comprehensive introduction of legal/institutional frameworks for management as applied in selected EU and non EU countries of the region;
- Enable, encourage, and facilitate dialogue and exchange of experiences between competent authorities and key stakeholders from the olive oil sector from the partner countries and beyond ;
- Promote sharing of experiences among the partner countries on innovative valorisation of waste management practices; facilitate exchanges with key experts in the field and develop synergies and complementary on this issue within the Mediterranean;
- Capitalise and expand peer-to-peer processes for experience sharing at regional level and knowledge transfer (south-to-south, north-to-south) around waste management.

In order to achieve the above objectives, the SWIM-H2020 SM used the expertise of the University of Athens (UoA), and the Regional Activity Center of UN Environment/MAP on Sustainable Consumption and Production (SCP/RAC) and invited speakers.

3 EXPECTED RESULTS OF REG-3

The expected results of REG-3 were:

A. Key stakeholders of the partner countries were to be introduced to:

- Regulatory frameworks concerning the olive oil industry, olive mills waste prevention, disposal and valorization.
- Recent developments and innovative approaches on olive mill by-products and waste valorisation and management through presentation of case studies.

B. A peer-to-peer process for experience sharing at regional level and knowledge transfer (south-to-south, north-to-south) around sustainable olive mill waste management was to be launched.

C. The informal regional dialogue on olive oil waste management issues that was initiated during the EU-funded CB/MEP project, between decision makers, experts and international technical experts, was continued, enhancing the basis for the development of synergetic activities, regional cooperation, etc.

All of the above expectations were met as will be shown in the following sections.

4 PROFILE OF THE PARTICIPANTS

The main target group included representatives of competent national and sub-national authorities (Ministries of Environment, Industry, Agriculture, Water) and implementers who were involved in different aspects of olive oil waste including licensing, promotion of new advances and alternative olive waste management in the Partner Countries but also of relevant producers, industry and even academic/research institutions. Three representatives had been targeted to be invited from each Partner Country as per the following:

- One to two representatives from the National Ministries responsible for the treatment and management of olive oil waste.
- One representative from the agro-industrial sector, ideally the relevant chamber or Association of olive oil producers or equivalent, or one representative from producers/companies/mills involved or academic/research institution.

In fact, the participating countries sent one to two representatives from the National Ministry responsible for the treatment and management of olive oil waste and almost all countries send either a representative from the agro-industrial sector or a representative from producers/companies/mills involved or academic/research institution.

The project team had a very good impression of the group. The participants were well prepared, with good knowledge of the topic and almost all of them had a good or very good level of either French or English, which facilitated interactive sessions with many interventions during the presentations and site visits, as well as a very open communication with the other participants and with the trainers.

In order to assess the workshop (its structure/agenda), its suitability (if responding to the level of knowledge of the participants) and its direct impact (mostly on knowledge gained and their stated willingness to act), a small questionnaire was distributed to the participants at the end of the workshop. The short exercise showed that the participants were able to follow the content of the course and were very attentive during the workshop, including the study visits. They understood and remembered well key concepts and processes discussed during the four-day training.

5 TRAINING STRUCTURE AND RESULTS

During the first day of the four day regional activity, the participants were introduced to a series of regulatory frameworks implemented worldwide and in main oil-producing EU Mediterranean countries, namely Greece and Spain, as well as in Cyprus and compared them with the relevant legal provisions in their own countries (Algeria, Egypt, Israel, Jordan, Lebanon, Morocco, Palestine, Tunisia) (See the agenda in Annex). In many cases, it was found that despite the existence of several related pieces of national legislation, there are considerable gaps and lack of comprehensive legislation. Moreover, it was concluded that the implementation of legislation referring to olive mill wastes, is not fully enforced while many small olive oil mills, throughout the region, do not operate properly and they do not fulfil the standards and requirements of the legislation. For addressing the problem, a considerably more intensive effort is needed by the countries and the industry itself for olive mill waste prevention and valorization or disposal in environmentally friendly ways (e.g. carefully managed application on soils).

During the second day, the participants were introduced to a variety of different sound methodologies and processes, exemplified by representative case studies, familiarizing them with a wide variety of techniques applicable to olive oil mill waste disposal and validation. Then, the participants were divided in three groups and each group was asked to elaborate three case studies, according to the scenaria proposed/suggested by the Team group. Nine in total short presentations were made, with considerable success and each one offered opportunities for comments, sharing of knowledge and experiences, “corrections” and readjustments, as well as for effective networking, in a very interactive and friendly atmosphere.

During the third day, the participants had the opportunity to visit two olive oil production plants, in the Prefecture of Corinthia, where they experienced/followed step by step all processes including the disposal of waste and they examined the advantages and disadvantages of 2 and 3 phase/processes in state-of-the-art small/medium size units.

Furthermore, they had the chance to visit and study a large operating olive pomace oil factory near Nea Kios, in the Prefecture of Argolis, in the Peloponnese, where they met also the owner/the President of the Pomace Association of Greece who, together with the responsible for the production and environment of the factory, explained all key aspects of production and the problems and solutions (from the inputs of

olive residues/cake, to the use of chemical solvents and to the production of different grades of refined olive pomace oil and biofuel. The participants were particularly interested, impressed and learned a lot by following closely all the steps.

During the 4th day, the participants were introduced to some of the most advanced valorization techniques and methods, some of which are at pilot phase level, e.g. for extracting valuable chemicals from the various olive residues.

They had the chance to visit one of the most advanced/state-of-the-art laboratories in this field, and experience the ongoing processes, many of which open new paths for the “treatment” of wastes and the production of high value pharmaceuticals.

Furthermore, the participants were engaged in an interactive session, the conclusions of which were the expression of satisfaction from the workshop and the request for further joint work. The wish expressed was for the training to be followed up by another one for additional colleagues and for deepening their understanding, knowledge and cooperation for assisting them to mobilize even more actively the relevant authorities and sectors at home.

The success of the workshop is attributed to the balanced variety of lectures, study visits, working groups and interactive discussions obtained, but also to the good level of knowledge of the participants and the fact that the trainers were from different backgrounds: Academic, Industry and relevant Authorities. Future regional trainings should try to follow the same model. A follow-up through the P2P exercise and another workshop in an eventual new phase of the programme are recommended in order to assess the progress/impact of the training.

6 PEER-TO-PEER FOLLOW-UP ACTIVITY (P2P-5)

The last session of the Training was dedicated to discussing and initiating a peer-to-peer (P2P) process for experience sharing at regional level (south-to-south, north-to-south) and knowledge transfer on specific issues on olive oil waste management.

The purpose of the P2P session was to explain in detail the P2P process (methodology, roles, topics, outputs, timeframe, etc.). The moderators asked participants to suggest priority themes and to think about outputs and deliverables that peers will work on during a follow-up phase.

Several participants announced their interest in continuing active cooperation on this theme and proposed several potential topics that covered the entire spectrum of the issues presented, including among others institutional/legal provisions to be introduced or promoted in their countries, water use efficiency in olive oil plants, transition from 3 to 2 phases units, operation on small decentralized units, etc.

It was agreed that the group of peers will come from Egypt, Jordan, Lebanon and Palestine. Further elaboration of priority of the topics and the appointment of the peers will be done after a debriefing on the results of the regional training with their respective ministries/institutions and in coordination with the H2020 Focal Points. From the H2020 Expert team, both Professors Mr. Chartzoulakis and Mr. Vilar will be available for wider support under the supervision of the Team Leader.

7 EVALUATION RESULTS OF REG-3

The training evaluation received overall satisfactory notes (3,4: "good"). Most appreciated aspect was the follow-up of preparations and progress towards the event (average 3,52). It is worth to notice that the second highest value is attributed to "Presentations correspond and contribute to the planned objectives and are conducive to enhanced shared understanding and participation on addressed topics" (average value 3,14), thus testifying how the objectives of facilitating dialogue and exchange of experiences and promote sharing of experiences among the partner countries were reached. (see Annex: Evaluation of the event)

Participants expressed their satisfaction about field visits to the olive oil mills and pomace factory providing discussion inputs to address the latest available scientific research results and industrial techniques.

The visit at the Laboratory of the University of Athens was generally highly appreciated. Participants appreciated the possibility to learn about the available technology and equipment presented.

Feedback on organisational, administrative and planning issues

A set of 11 criteria; A1-A11 (See table below) was assessed by the participants, using a qualitative description ranging between "Excellent" to "Poor", with an opportunity to provide suggestions for improvement. For the sake of comparison, the qualitative descriptions are given Series Numbers as follows: Excellent = 4; Good = 3; Average = 2; Poor = 1.

Table 1 – Training rating results related to organizational, administrative and planning issues

	A. ORGANISATIONAL, ADMINISTRATIVE AND PLANNING ISSUES BEFORE AND DURING THE EVENT	EXCELLENT	GOOD	AVERAGE	POOR	Total Replies	Average Score (max = 4)
A1	Appropriate handling of invitations, visa support, information sharing and smoothing obstacles	14	14	0	0	**28**	3,50
A2	Efficient logistics: accommodation, transportation, location of venue and interpretation	15	11	2	0	**28**	3,46
A3	Provision of support (if requested) for participants' preparation for the event	14	9	4	0	**27**	3,37
A4	Efficient and effective follow-up of preparations	15	11	1	0	**27**	3,52

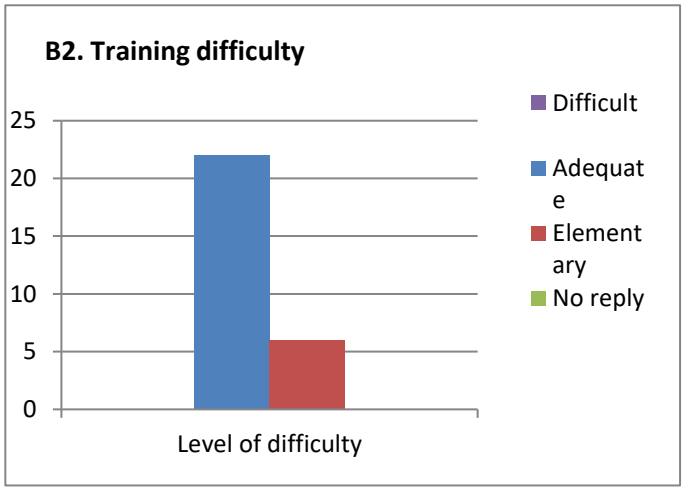
	and progress towards the event						
A5	Planning for the event: selection and design of methodology, programme/daily agenda and work rules	8	19	1	0	**28**	3,25
A6	Smooth flow of programme, efficient handling of emerging needs and attentiveness to participants concerns	12	15	1	0	**28**	3,39
A7	Presentations correspond and contribute to the planned objectives and are conducive to enhanced shared understanding and participation on addressed topics	13	11	5	0	**29**	3,28
A8	Clarity, coverage and sufficiency of concepts, objectives, anticipated outputs and outcomes	7	18	3	0	**28**	3,14
A9	The materials distributed were helpful	12	14	1	0	**27**	3,41
A10	Efficient and Effective Facilitation	15	10	2	0	**27**	3,48
A11	Overall rating of the event	10	13	1	0	**24**	3,38

See also the corresponding graphs for Table 1 in Annex 9.3 (Figures 1-11)

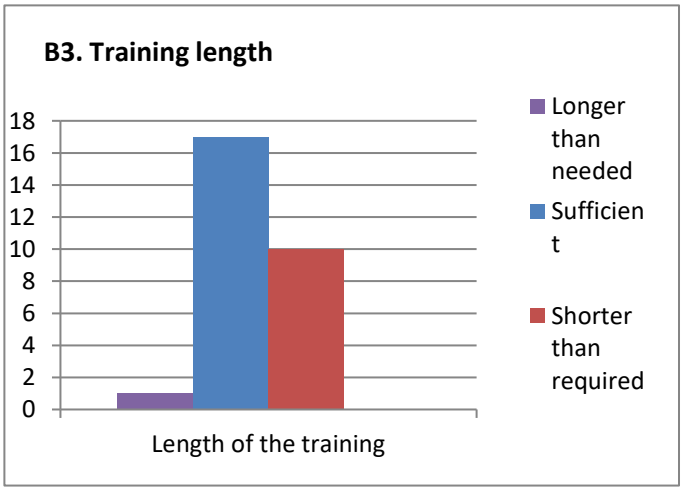
Feedback on technical aspects

Training coverage

Training difficulty



Training length



See the corresponding table 2: Participants' feedback on technical aspects of the training in Annex 9.3. Also, see the table 3: Participants replies to the open-ended questions in Annex 9.3.

8 CONCLUSIONS, OVERALL ASSESSMENT, AND RECOMMENDATIONS

The Regional Training on the Sustainable Management of Olive Oil Mills' Waste, was a particularly successful one. It provided to the well chosen participants, knowledge on theoretical and practical/operational issues and direct contact with industrial plants, where they observed the application

of the theory and knowledge in a comprehensive and pleasant way. Furthermore, the training helped them to network and exchange experiences from their countries and their institutions.

The duration of the training (4 days) and the combination of lectures, interactive sessions/working groups and visits of industries and laboratories, were very well balanced and greatly appreciated by the participants.

This kind of balanced programme should be considered as an ideal model to be followed, wherever possible and, if the resources allow, for all regional trainings.

The launching of the P2P exercise was also very well received by the participants and raises many expectations that need to be fulfilled despite the limited resources of the programme for this activity. Some additional resources are needed for the proper development of the P2P activities and for a new workshop in a potential new phase, in order to examine the impact/progress obtained as a follow-up of the training.

The practice introduced by the SWIM-H2020 SM, in addressing not the “entire industrial sector” but specific sectors, of particular interest for the Mediterranean region, such as “olive oil”, “iron and steel mills” (in the previous H2020 CB/MEP phase) and “cement”, seems to be very appropriate and appreciated by the relevant authorities and sectors and needs to be continued, deepened and expanded to other sectors in a next phase of the programme.

9 ANNEXES

9.1 AGENDA

Sustainable Management of Olive Oil Mills' Waste

DAY 1: Monday 4 Dec	Venue: Acropolis Palace Hotel, 19-25 Parthenonos, 11742, Athens		
Time	**Session**	**Work programme**	
13.00-14.30	Lunch		
14.30-15.30	Welcome	• Welcoming remarks • Brief overview of the SWIM-H2020 SM • Agenda overview • Tour de Table	Prof. Michael Scoullos, Team Leader, SWIM-H2020 SM
15.30-16.30	OMW in the Mediterranean	How Med countries are dealing with olive oil production and pollution prevention and treatment: a general overview of currently applied policies and methods (centralized and decentralized approaches) Q&As	-Dr. Kostas Chartzoulakis, SWIM-H2020 SM Expert -Ing. Angelos Mochloulis, Pieralisi
16.30-17.00	Coffee break		
17.00-18.30	OMW in the Mediterranean	The regional context: the legal and institutional frameworks across the Med – challenges and latest trends Q&As	-Mr. Giorgos Kontaxakis, SWIM-H2020 SM Expert -Ms. Olympia Antoniou, Ministry of Environment of Greece, Environmental Permitting Dpt.

DAY 2: Tuesday 5 Dec	Venue: Acropolis Palace Hotel		
Time	**Session**	**Work programme**	
09.30-11.15	Pollution Prevention and resource efficiency	- The use of olive by-products for energy production: the case of Cyprus - The international olive oil sector and its environmental impact: An overview, with cases from various countries	-Dr.-Ing. Paris Fokaides, Frederik University -Prof. Dr. Juan Vilar Strategic Consultant, SWIM-H2020 SM Expert
11.15-11.45	Coffee break		
11.45-13.00	BATs/best practices	Centralised schemes: - The Spanish case, with emphasis on water savings - other Countries	-Prof. Dr. Juan Vilar Strategic Consultant, SWIM-H2020 SM Expert -Countries' presentations
13.00-14.00	Lunch break		

14.00-15.30	BATs/best practices	Decentralised schemes: Case studies and methodologies from companies and various countries	-Mr. Konstantinos Axaridis, Alfalaval -Countries' presentations
15.30-16.00	Coffee break		
16.00-17.30	Exercise	Group work	

DAY 3:		
Wednesday 6 Dec	**Field visit to olive oil mills**	
Time	**Session**	**Work programme**
9.00	Departure from the hotel by bus	
10.30-12.00	Visit to a functioning olive oil mill in the area of Agioi Theodoroi (close to Corinth)	
12.30-13.30	Visit to a functioning olive oil mill in the Peloponnese (near the village of Klenia)	
14.00-15.30	Lunch	
15.30-17.00	Presentation by Mr. Christos Senis, MORI TEM, Greece and Cyprus Remarks by Mr. Vasilios Kamvisis, SEVITEL Discussion	
17.00-18.30	Return to the hotel	

DAY 4:			
Thursday 7 Dec	**Venue: the University of Athens**		
Time	**Session**	**Work programme**	
9.00	Departure from the hotel to the UoA (Panepistimioupolis)		
09.30-10.15	Valorisation of olive oil mill waste	Overview	Venue: Aristotelis Amphitheater
10.15-11.00	Coffee break and walk to the Laboratory		
11.00-12.00	Valorisation of olive oil mill waste	Visit to the Laboratory	Venue: Laboratory of the Department of Pharmacology
12.15-13.15	Closing of training	Closing reflections Evaluation and certificates award	Venue: amphitheater
13.15-14.30	Lunch break		
14.30-16.00	P2P session	Peer-to-Peer exchange launch session	Venue: Aristotelis Amphitheater

9.2 List of participants

Sustainable Management of Olive Oil Mills' Waste
4-7 December 2017, Athens, Greece

No.	COUNTRY	TYPE OF INSTITUTION (please use the options provided*)	TITLE (Mr/Ms)	FIRST NAME	LAST NAME	POSITION/ FUNCTION	ORGANISATION/ INSTITUTION	EMAIL
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43	TUNISIA	MINISTRY REPRESENTATIVES	Mr.	Ahmed	CHERNI	Sous Directeur	Ministère de l'Industrie, des petites et moyennes enterprises, Direction General des industries	cherni.ahmed@yahoo.fr
44	TUNISIA	GOVERNMENT AGENCIES	Ms.	Abir	SASSI	Chief Engineer	Tunisan national agency for waste management (ANGED)	Abir-sassi@anged.nat.tn
45	TUNISIA	GOVERNMENT AGENCIES	Ms.	Dhouha	TANGOUR	Chef de Service/ Direction Transfert et Innovation Technologique	Centre International des Technologies de l'Environnement	recherche2@citet.nat.tn

9.3 DETAILS ON THE RESULTS OF THE EVALUATION FORMS

The following graphs illustrate Table 1: Training rating results related to organizational, administrative and planning issues:

Figure 1 – Invitations and support

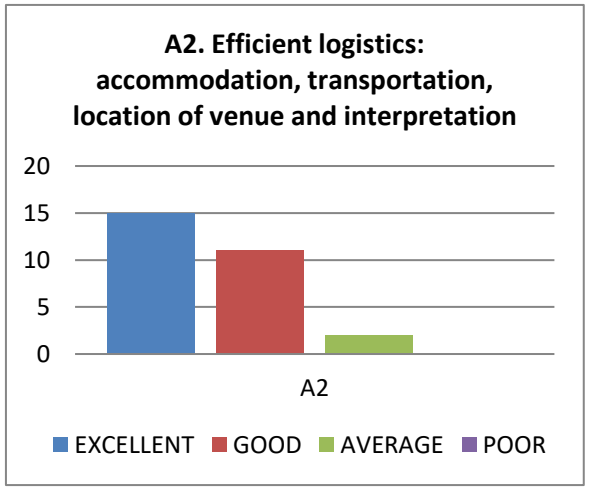

Figure 2 – Logistics

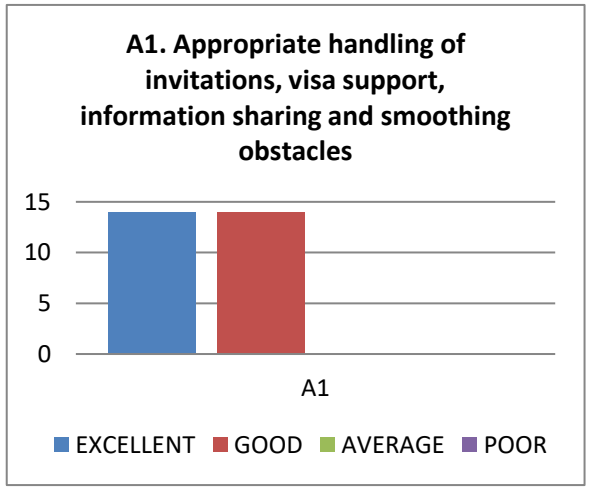

Figure 3 – Participants' preparation

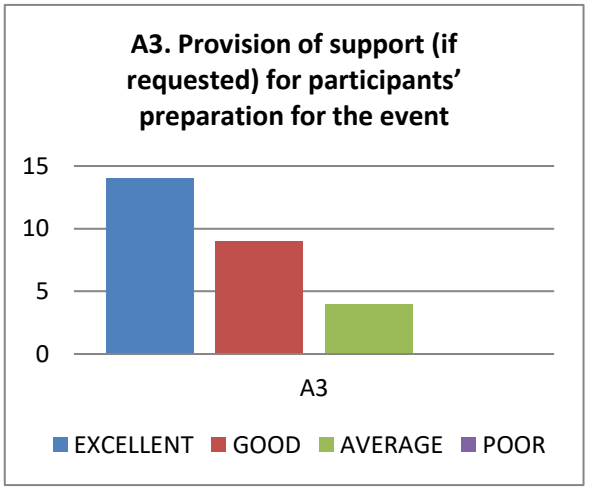

Figure 4 – Progress towards the event

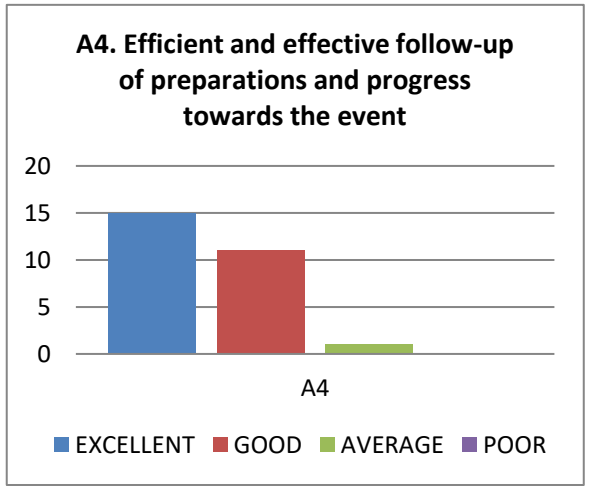

Figure 5 – Planning

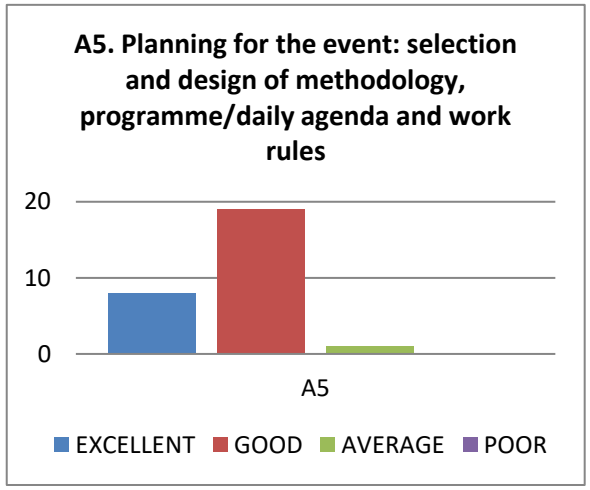

Figure 6 – Flow of programme

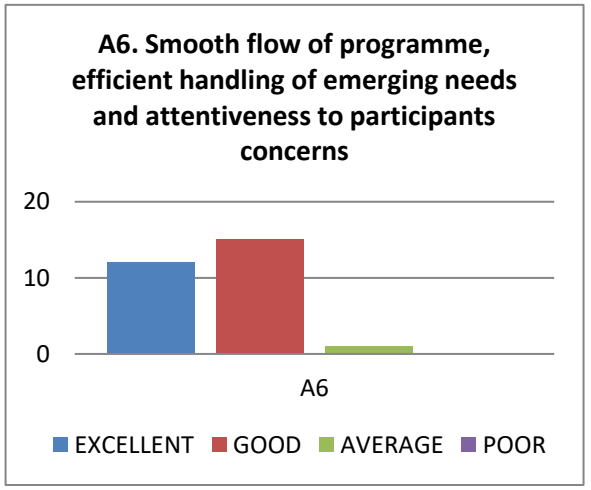

Figure 7 – Presentation and enhanced shared experience

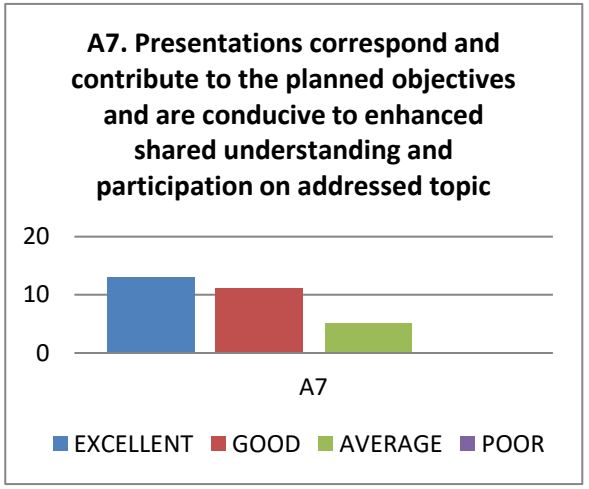

Figure 8 – Clarity and Sufficiency of concepts

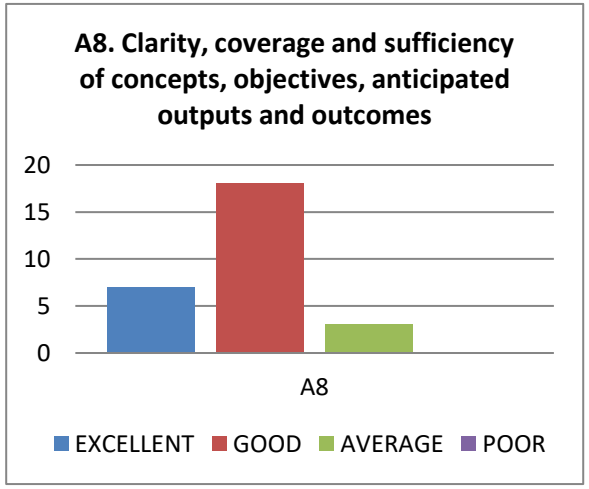

Figure 9 – Quality of materials

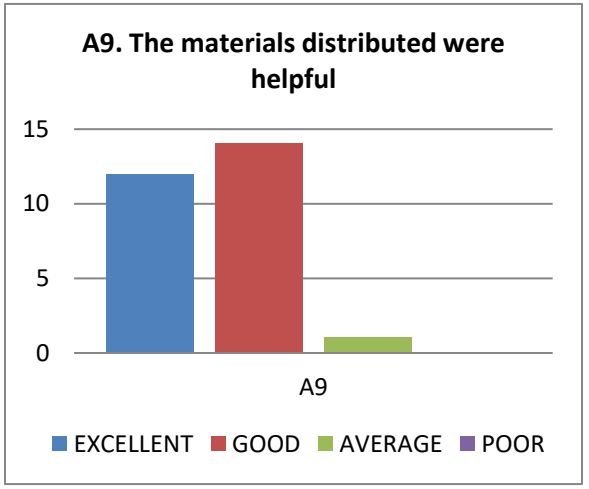

Figure 10 – Facilitation

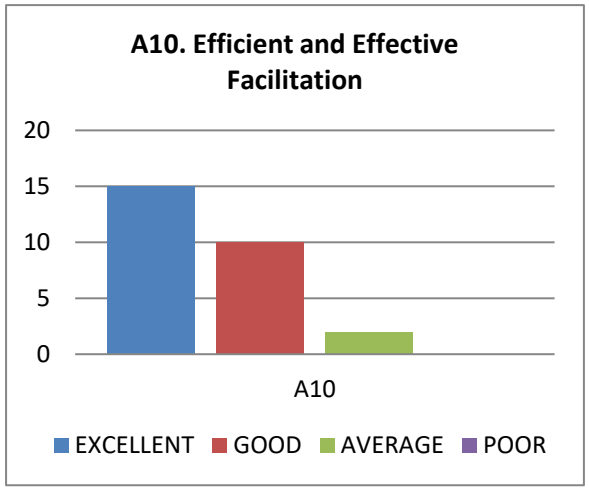

Figure 11 – Overall rating

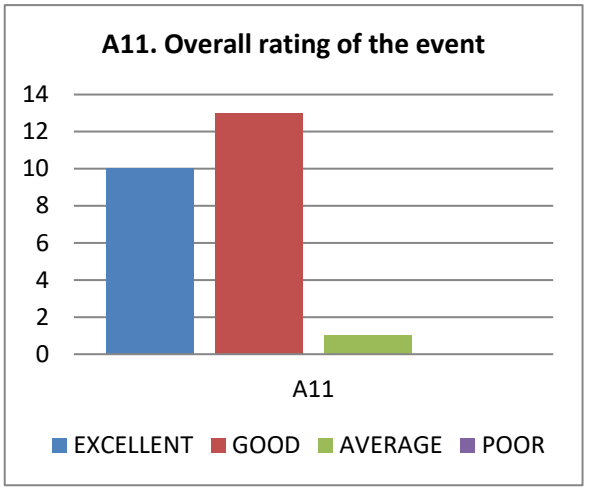

Table 2 - Participants' feedback on technical aspects of the training

B. FEEDBACK ON TECHNICAL ASPECTS		No. of replies
B1	**Coverage of the event** **In your opinion did the event cover (tick one of the following):**	
	All the topics necessary for a good comprehension of the subject nothing more	14
	Some topics covered are not necessary	5
	Some additional topics should be included	10
	No reply	0
	Total Replies	**29**
B2	**Level of difficulty**	
	Difficult	0
	Adequate	22
	Elementary	6
	No reply	0
	Total Replies	**28**
B3	**Length of the training** **In your view the workshop duration (tick one of the following):**	
	Longer than needed	1
	Sufficient	17
	Shorter than required	10
	No reply	0
	Total Replies	**28**

Table 3 - Participants replies to the open-ended questions

Open-ended questions		Participant's replies
B4	**What is the most valuable thing you learned during the workshop (knowledge or skills)?**	▪ Got valuable information and experience about how each production method works, namely the 2 phase and 3 phase (4); ▪ Found out how other countries are dealing with the issue of olive waste management (5); ▪ Gained useful information from the visit to the pomace factory and the University of Athens Laboratory (4); ▪ The information collected, through the discussions and the presentations, as well as the coordination among the countries, was very useful (5); ▪ The different types of the waste treatment models and the field visits, provided great help to the participants to work with (3); ▪ The countries need to elaborate more on olive waste treatment techniques in order to respect the environment (1); ▪ One participant mentioned they found out about new solutions which need to be used in order to minimise the olive oil mill wastes (1); ▪ The olive oil management is a completed approach, which should not only concern the reduction or elimination of olive oil wastes but

		also must by economically justified for countries like Morocco (1); ▪ The participants got valuable information how to use the liquid olive mill waste to protect the environment and also for medical purposes (1);
	Total Replies	**24**
B5	**How do you think that the current event will assist you in your future work on the subject?**	▪ During the training the necessary scientific knowledge was gained for broader thinking on OMW recycling with the use of new, cleaner, technologies (7); ▪ Some of the participants mentioned that they will try to transfer the information acquired to the Ministry colleagues, in order to influence the decision makers towards environmentally acceptable methods (6); ▪ One person said that most of the participants intend to keep in touch among themselves for further sharing of experiences (1); ▪ Some said that they intend to organize seminars on olive wastes and their impacts (1); ▪ They mentioned collection the necessary information in order to start preparing the 3-phase production method (1); ▪ They found out about different technologies of OWM and now there is the opportunity to further investigate which one is most appropriate for which case/country (1); ▪ They will study the environmental emission from the pomace factory and will try to apply it in Israel (1); ▪ They need to transfer the information to the Palestinian farmers and olive oil mill, due to the fact that, in the country they use to press only in 3 phase methods (1); ▪ They will communicate the information they received to the olive mill owners of their countries so as to update them on the new technologies (1); ▪ They will try to apply more uses for pomace (1);
	Total Replies	**21**
B6	**Please indicate whether (and how) you could transfer part of the experience gained from the event to your colleagues in your country?**	▪ They need to upload the information received on the relevant Ministry sites and organise meetings with all the colleagues involved as well as organise awareness campaigns because the experience and information aquired on olive oil mill management technologies has to be communicated in the most efficient way and the will try to put in place the 3-phase extraction (26);
	Total Replies	**26**
B7	**What did you like most about this event?**	▪ The field visits to the olive oil mills and pomace factory, as well as the Laboratory of the University of Athens and the available technology and equipment presented (7); ▪ The exercises were very useful (1); ▪ The quality of the presentations and the competence of the different experts (2); ▪ The valuable new information which was shared with the participants during the collective work (3); ▪ The fruitful cooperation among the countries and the chance they were given to communicate (1);

		▪ The nice atmosphere and the great people meeting during the training (3); ▪ Almost all the information provided, the country presentations, the site visits, had taken into consideration the latest available scientific research results and industrial techniques (2); ▪ The sharing of experiences regarding the management of the olive waste (2); ▪ The proposed technology and methodology (1); ▪ The fact that the countries were invited to participate and had the opportunity to share the information in order to how best protect the environment (2); ▪ The energy lecture (2);
	Total Replies	**26**
B8	**What needs to be improved?**	▪ Need to see more 2-phase and 3-phase olive mills (2); ▪ More olive oil producers could have participated as speakers (1); ▪ Translation in Arabic should be included in the trainings (2); ▪ Increase of financing to olive oil farmers (1); ▪ Need for visiting a new compost unit or a recycling unit (2); ▪ The results of the waste valorisation study (1) need for more field visits (5); ▪ The event duration (2); ▪ Would like to have more time for a cultural event (2); ▪ The specific training was very time pressed (1); ▪ Would need a further visit to study in depth the pomace and Biogas facilities (1); ▪ Would need some more free time to visit the beautiful city (4); ▪ Would like to see a more modern pomace factory or energy plants (2);
	Total Replies	**26**