



# Report

## P2P-5 & WEB-3 on the Sustainable management of waste from olive oil mills

linked with the

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

(REG-3, Athens, Greece, 4-7 December 2017)

April 2019

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

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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 CONTEXT AND RATIONALE

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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 REG-3 capacity building activity of SWIM-H2020 SM took place in Athens and the Peloponnese on 4-7 December 2017 and provided insight into the best available technologies and practices dealing with the management of olive mill waste with emphasis on innovative low-cost ones; 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 REG-3, as was the sharing of experiences on policy – regulatory frameworks introduced in countries of the region.

A Peer-to-Peer exchange (P2P-5) was launched during REG-3 and WEB-3 was expected at some point to play a role in the P2P exchange. The foreseen combined level of effort of the NKEs to support this P2P and webinar was six senior expert days.

## 2 LAUNCH OF P2P-5 AND WEB-3

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The last session of REG-3 on the 7<sup>th</sup> of December was dedicated to discussing and initiating the peer-to-peer process for experience sharing at regional level (south-to-south, north-to-south) and knowledge transfer on specific issues on olive oil waste management.

During the P2P session, the potential methodology, roles, topics, outputs, timeframe, etc. were explored. 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 on the topics and the appointment of the peers would 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 would be available for wider support under the supervision of the Team Leader and with additional inputs from Mr. Kontaxakis.

## 3 OBJECTIVES AND MODALITIES OF P2P-5 AND WEB-3

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A meeting of the REG-3 trainees from Egypt, Jordan, Lebanon and Palestine took place later on Thursday 7th December 2017 at 22:00 at the hotel in order to jointly define the objectives, modalities, etc. of P2P-5.



After extensive discussions, it was agreed that P2P-5 and WEB-3 would **focus** on:

- the whole olive oil production process (agriculture, industry and environment);
- issues for excellence in olive oil production per country as well as the challenges and obstacles that need to be overcome;
- applied Best Available Techniques (BAT) taking note of current situation in each country (economic, political, social, etc.);
- needed support from EU and the more advanced MENA countries in the field of olive oil production;
- possible face to face, collaboration meetings, study tours, ...etc. (beyond SWIM-H2020 SM) that could take place to exchange experiences, technology transfer and increase awareness.

From the discussions, it was agreed that as a starting point, Lebanon, that already has an environmental law with a specific decree for use of olive oil green water for watering trees, would share its experience with the others. This law was created through EU support (it also addressed Syria and Jordan) and both Lebanon and Syria have issued the law but not Jordan.

So the other peers would learn from the Lebanese experience.

In terms of **communication** between the Peers, the following were agreed:

- an e-group would be created (derived from the initials of the participating countries, e.g. "JPEL-OLIVE OIL H2020");
- each peer should provide another email account (as an alternative) for the more official communication, the exchange of documents, etc.;
- WhatsApp, imo and Skype would also be used apart from emails, depending on the availability in each country.

The above were communicated to the Team Leader of the project and the NKEs supporting the P2P.

The 'official' **duration** of the P2P exchange (with the formally appointed peers) would be till the end of 2018 or even later depending on developments and the availability of the NKEs functioning as coaches. This did not limit the communication among the Peers on whatapp which began immediately after REG-3.

Towards the end of the P2P, the webinar would take place to provide additional expertise and/or consolidate the process.



## 4 THE PEERS

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Over the next months, the following Peers were formally appointed by the countries for P2P-5:

- Jordan: Dr. Jihad Alsawair, Technical Advisor to the Minister/ Director of Green Economy Unit
- Lebanon: Ms Amal Merhi, environmental engineer within the service of urban protection and Mr. Ahmad Damaj, both from the Ministry of Environment of Lebanon
- Egypt: Mr. Emad M. Aly, Federation of Egyptian Industries (FEI)

A Peer from Palestine was never formally appointed.

## 5 P2P-5 IMPLEMENTATION

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The P2P exchanges revolved mainly around:

- the Lebanese decrees for use of olive oil green water for irrigation (in Arabic)
- similar Spanish, Greek, Cypriot, Italian, Portuguese and Syrian regulations
- relevant EU documents and information (Directive 2010/75/EU on Industrial Emissions – BAT given in the 2006 BREF - sections on BATs that were at the time under development and would become available in 2019)
- outcomes of relevant EU projects on legislative recommendations for olive oil waste management, including on soil protection for soil disposal of olive oil waste.

The NKEs provided considerable information (some in fact not yet (at the time) ready to be publically available) on a multitude of aspects covering all aspects of the olive oil sector from all over the region and the world.

The Egyptian peer informed that he was successful in mobilizing nine businessmen working in the field of olive cultivation and olive oil extraction to attend the World Olive Oil Exhibition (WOOE) in Madrid (21-22 March 2018). It was a very fruitful business trip and most of them intend to adapt their businesses based on new knowledge gained (cultivation and/or olive oil extraction).

The H2020 Focal Point and the Egyptian Peer, with technical support from the NKEs and symbolic financial support from SWIM-H2020 SM co-organized a national conference on 29 September 2019, entitled Production of Egyptian Olives: Current Situation and Future Prospective. The conference was considered a direct follow-up and dissemination opportunity of REG-3 (a translated agenda is attached in Annex).





The webinar was to take place shortly afterward but due to an extremely busy last quarter of 2018 for the project, it was postponed for 2019 (see next section).

*(The peers were asked at the end of the project to assess P2P-5 but no replies were received)*

## 6 WEB-3

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The Peers were invited to participate in a short on-line meeting of 1 hour scheduled to take place on March 13th at 14.30 (Athens time) via a skype link.

The webinar would offer the last opportunity under SWIM-H2020 SM for the Peers to:

- exchange views and be informed by the Team Leader and Dr. Chatzoulakis on the latest scientific developments in the field;
- raise questions that could be answered by the TL and NKE;
- capitalize on the knowledge gained and allow for the identification of issues that could be eventually addressed within the framework of a follow-up programme.

Unfortunately, despite efforts, none of the peers could join due to very poor internet quality at the specific time. Re-scheduling also proved to be difficult before the end of the project and it was agreed to continue via email exchanges and with the provision by the project of a compendium of experiences on best practices to be eventually used (translated or not) by the peers to inform/train others within their departments or other interested stakeholders.

Shortly afterwards, the Team Leader shared with the peers the project deliverable under Work Package 5: STUDY ON BEST PRACTICES FOR THE OLIVE OIL PRODUCTION SECTOR FOR WASTE MINIMIZATION, WATER AND ENERGY CONSUMPTION AND VALORISATION OF THE SUB-PRODUCTS OF OLIVE OIL PRODUCTION (<https://www.swim-h2020.eu/wp-content/uploads/2019/05/Olive-Oil-Waste-Study.pdf>) which covers the entire process of olive oil production and the treatment/management of the Olive Mill Wastes (OMW) and the recommendations about the Best Available Techniques (BATs) for the sector.

A powerpoint presentation based on the study was also shared with the peers for their use.

The peers were invited to share their comments on the study and ppt or any questions or additional information they might have. The TL and NKE clarified that a skype/tel follow-up was welcome at any time.

The peers were also encouraged to liaise with the project's Focal Points in their country for any proposed follow up actions in the olive oil sector.



## 7 CONCLUSIONS AND RECOMMENDATIONS

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The launching of the P2P exercise was very well received by the participants at REG-3 raising thus expectations. Overall, taking into account the limited resources of the programme for this activity, the P2P yielded some satisfactory and concrete results. There was sharing of knowledge and transfer of expertise (South-South and North-South); there was dissemination of the REG-3 and P2P-5 learning in Egypt, which capitalized on the opportunity to a very satisfactory level.

There are however lessons that have been learned for any follow-up P2P exchanges:

- some additional resources are needed for a truly engaging P2P exchange (fully acknowledging the support to Egypt for the national conference as very generous).
- provision for formal visits of peers to each other's ministries with good preparation prior to the mission would be most meaningful. This would entail true commitment for engagement by the respective administrations at a high level. The end result would be very impactful in a South-South exchange framework.
- documentation that is not in Arabic (provided by the EU NKEs) poses an issue as the peers cannot efficiently promote it within their administrations unless it is translated into the official language of the country.



## 8 ANNEX

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## “Production of Egyptian Olives: Current Situation and Future Prospective”

**السبت 2018/9/29**

النشاط	التوقيت	
	إلى	من
• التسجيل	9:30	9:00
• الافتتاح وكلمات الترحيب (السادة الحضور)	9:40	9:30
<b>الجلسة الأولى (الزراعة) First Session (Agriculture)</b>		
<b>The role of SWIM-H2020 SM in supporting cooperation in the field of preserving the environment with a focus on the olive industry</b> (Dr. Emad Adly (د. عماد عدلى	10:00	9:40
<b>Management of olive farms under organic Agriculture systems</b> (Prof. Dr. Khaled Abdel Mowla (أ.د./خالد عبد المولى	10:20	10:00
<b>Olive: Super high density system</b> (Dr. Mohamed Ghazy (د./محمد غازى	10:40	10:20
<b>Production of Certified Olive Seedlings</b> (Prof. Dr. Mohamed Abdel Shakour (أ.د./محمد عبد الشكور	11:00	10:40
<b>Preventive Measures and Strengthen Capacities to Prevent the Introduction and Spread of Olive Quick Decline Syndrome</b> (Prof. Dr. Ahmed Sabry (أ.د./أحمد صبرى	11:20	11:00
مناقشات وأسئلة حول موضوعات الجلسة الأولى	11:40	11:20
<b>Coffee Break إستراحة</b>	12:00	11:40
<b>الجلسة الثانية (الصناعة) Second Session (Industry)</b>		
<b>Olive Oil Production According to Quality Criteria: For the Competition in Domestic and International Markets</b> (Prof. Dr. Adel Gabr (أ.د./عادل جبر	12:20	12:00



<b>Modern Technologies for Olive Oil Production</b> (Eng. Ahmed Darwish (م./احمد درويش)	<b>12:40</b>	<b>12:20</b>
<b>Sensory Evaluation of Olive Oil and Its Role in Controlling Oil Quality</b> (Dr. Ayman El-Beltagy (د./أيمن البلتاجي)	<b>1:00</b>	<b>12:40</b>
<b>A success story on the impact of sensory evaluation to raise the competitiveness of olive oil producers</b> (Eng. Ahmed Azzam (م./أحمد عزام)	<b>1:20</b>	<b>1:00</b>
مناقشات وأسئلة حول موضوعات الجلسة الثانية	<b>1:40</b>	<b>1:20</b>
<b>الجلسة الثالثة (البيئة)</b> <b>Third Session (Environment)</b>		
<b>Management of Wastes from Olive Oil Industry</b> (Prof. Dr. Sohair Aboul Ela (أ.د./سهير ابو العلا)	<b>2:00</b>	<b>1:40</b>
<b>Olive Diseases in Egypt and its Control</b> (Ass. Prof. Dr. Youssef El- Adawy (أ.د.م./يوسف العدوى)	<b>2:20</b>	<b>2:00</b>
<b>Good Management Systems for Traditional and Intensive Olive Farms</b> (Eng. Mahmoud Abouseif (م./محمود ابو سيف)	<b>2:40</b>	<b>2:20</b>
<b>Green Economy and its applications in Olive Industries</b> (قيد التأكيد)	<b>3:00</b>	<b>2:40</b>
<b>Available Funding resources</b> (Eng. Mahmoud Abouseif (م./محمود ابو سيف)	<b>3:20</b>	<b>3:00</b>
مناقشات وأسئلة حول موضوعات الجلسة الثالثة	<b>3:40</b>	<b>3:20</b>
التوصيات و الختام	<b>4:00</b>	<b>3:40</b>
الغداء	<b>5:30</b>	<b>4:00</b>