



This Project is funded
by the European Union

Water and Environment Support

in the ENI Southern Neighbourhood region



RE-4-P2P

Peer-to-Peer exchange on Management of Construction and Demolition Waste (CDW) Report on the P2P Process (D4)

November 2023

Version	Document Title	Author	Review and Clearance
v.1	<i>RE-4-P2P - Peer-to-Peer exchange on Management of Construction and Demolition Waste (CDW) Report on the P2P Process (D4)</i>	<i>Françoise Bonnet Ahmad Jelidi</i>	<i>Anis Ismail</i>

WATER AND ENVIRONMENT SUPPORT IN THE ENI SOUTHERN NEIGHBOURHOOD REGION

The "Water and Environment Support (WES) in the ENI Neighborhood South Region" project is a regional technical support project funded by the European Neighbourhood Instrument (ENI South). WES aims to protect the natural resources in the Mediterranean context and to improve the management of scarce water resources in the region. WES mainly aims to solve the problems linked to pollution prevention and the rational use of water.

WES builds on previous similar regional projects funded by the European Union (Horizon 2020 CB/MEP, SWIM SM, SWIM-H2020 SM) and strives to create a supportive environment and increase capacity all stakeholders in the partner countries (PCs).

The WES Project Countries are Algeria, Egypt, Jordan, Lebanon, Morocco, Libya, Palestine, Syria and Tunisia. However, in order to ensure the coherence and effectiveness of EU funding or to promote regional cooperation, the eligibility of specific actions can be extended to neighboring countries in the Southern Neighborhood region.

DISCLAIMER:

This publication was produced with the financial support of the European Union. Its contents are the sole responsibility of the WES Project and do not necessarily reflect the views of the European Union.



CONTENTS

1	BACKGROUND	6
2	OBJECTIVES OF THE ACTIVITY.....	6
3	IMPLEMENTATION OF THE P2P PROCESS	7
4	PROFILES OF THE PEERS	8
5	STATISTICS GENDER AND YOUTH	9
6	EVALUATION OF THE P2P PROCESS BY THE PEERS	10
7	CONCLUDING REMARKS	15
8	ANNEXES	16
8.1	AGENDAS OF THE 3 ONLINE P2P MEETINGS	16
8.2	LIST OF PEERS.....	19
8.2	ACTIVITY MATERIALS	22



LIST OF FIGURES

FIGURE 5-1: REPRESENTATION OF PEERS PER COUNTRY	9
FIGURE 5-2: REPRESENTATION OF PEERS PER TYPE OF INSTITUTION	9
FIGURE 5-1-1: GENDER (PEERS)	9
FIGURE 5-1-2: AGE (PEERS)	9
Figure 5-1-7: GENDER - POSITION LEVEL	10
FIGURE 6-1: PLANNING FOR THE P2P ACTIVITY (A.1)	10
FIGURE 6-2: CONCEPTS WERE CLEAR (A.2)	10
FIGURE 6-3: SCHEDULE AND OBJECTIVES WERE MET (A.3)	11
FIGURE 6-4: EXPECTED RESULTS WERE ACHIEVED (A.4)	11
FIGURE 6-5: FACILITATION/DELIVERY OF THE P2P PROCESS (A.5)	11
FIGURE 6-6: INTERACTION WITH THE OTHER PEERS (A.6)	11



ABBREVIATIONS

CDW	Construction and Demolition Waste
EU	European Union
MENA	Middle East and North Africa
PC	Partner Countries
P2P	Peer-to-Peer

1 BACKGROUND

The construction industry is one of the most significant industries which contribute to the social and economic development of every country. Nevertheless, construction and demolition waste (CDW), which contributes about 50% of the total global annual generated solid waste (SW), represents a growing challenge for countries to face with. CDW contains a wide variety of materials generated by construction and demolition of buildings and infrastructure, as well as road planning and maintenance, such as concrete, bricks, wood, glass, metals, and plastic. Some components of CDW have a high resource value, while others may have a lower value, but could still be reprocessed into new products or materials to be utilized in construction and infrastructure projects.

Increased living standard, rapid urbanization, and expansion of “infrastructures” (roads, airports, etc.) have brought a construction “boom” in most of the countries of the MENA region, resulting in a considerable increase of CDW quantities. This has become an escalating problem in the MENA region characterized by predominance of unsustainable CDW practices: CDW is dominantly disposed in open spaces, without planning, and therefore causing serious negative impacts on society, environment, and economy.

The main barriers¹ to the proper management of CDW are absence of standardization and efficient practices, lack of effective policies and education, deficiencies in awareness, low profit margins, and lack of technical and financial resources. Overview² of the existing CDW management practices shows that all those barriers exist in the MENA region countries, implying overwhelming need for finding sustainable solutions.

This is why the WES project included in its workplan Regional Activities on Management of Construction and Demolition Waste (CDW): a Peer-to-Peer (P2P) exchange and a Study Tour (ST) including a Workshop, that eventually took place in Marseilles in September 2022. This report focuses on presenting the now concluded P2P process, while the report on the Study Visit can be accessed here: <https://www.wes-med.eu/wp-content/uploads/2023/01/RE-4-REG-ST-2023.01-Report.pdf>.

2 OBJECTIVES OF THE ACTIVITY

The overall aim of this activity was to provide technical assistance and strengthen the capacities of appointed Peers from the WES PCs to elaborate and implement effective measures to reduce the environmental impact of CDW and maximize the sustainability of CDW management. It is obvious from the later sections of the report that the objective of the activity was met with to a satisfactory degree.

The specific objectives of the P2P activity, which involved direct exchange of experience with the Coach as well as between and among Peers from relevant institutions in the beneficiary countries and beyond, were:

¹ According to Daoud O.A et al. “An Investigation into Solid Waste Problem in the Egyptian Construction Industry: A mini-review”, WM&R, 2020

² According to “Challenges and opportunities for solid waste management in the Mashreq and Maghreb Countries” (SWEEP-Net April 2014)



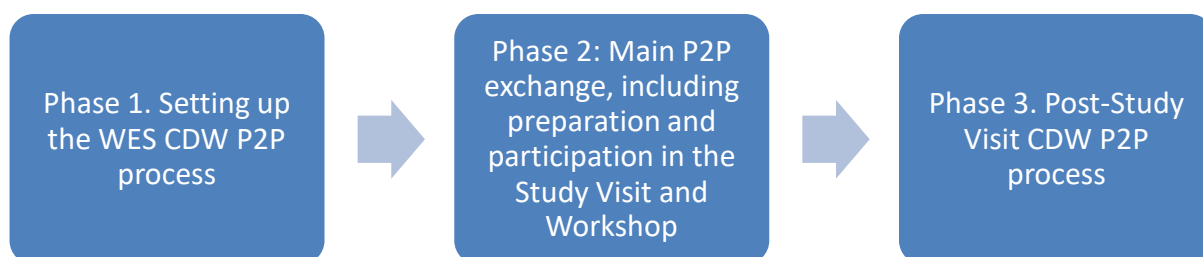
- Sharing knowledge among Peers on challenges related to CDW
- Sharing expertise on solutions to manage and reduce CDW
- Boosting south-to-south (and north-south) cooperation
- Building lasting relations and exchanges

The present document reports on the overall P2P Process which included 3 online meetings covering the period April 2022 – March 2023 as well as the in-person meeting of the Peers in Marseilles during the Study Visit (RE-4-SV) combined with the P2P process.

3 IMPLEMENTATION OF THE P2P PROCESS

The P2P process was delivered in three phases:

- **Phase 1: two online P2P meetings** were organized.
 - The first virtual P2P meeting was organized on the 7th of April 2022 and aimed at introducing all the participants (Peers, Experts, etc.) and consolidating the workplan, roles and expectations.
 - The 2nd virtual P2P meeting was organized on the 16th of June 2022 and aimed at enhancing discussion among Peers on several issues related to C&DW and introducing the host (Region Sud – Provence-Alpes-Côte d'Azur) and the envisaged structure of the Study Visit. In parallel, the preparatory work for the development of the Desk Study on demolition and construction waste practices had been launched, and its objectives and structure were presented during the 2nd P2P meeting
- **Phase 2: many of the Peers met in person** during the study visit (followed by a 1-day workshop) that was held in Marseille, France, on the 20th, 21st and 22nd of September 2023. For more details see the report via the link on page 6.
- **Phase 3:** during this phase:
 - there were several interactions with the Peers mainly in order to get their contributions for the Desk study with the most accurate available data.
 - a third and last **on-line P2P** meeting was organized on the 15th of March 2023 with the aim to present the Desk Study to all participants, conclude the P2P process, conduct the evaluation process, etc.



After the first online P2P meeting, a short survey was circulated to the appointed peers to capture needs, priorities and expectations. The results of the survey were shared with the peers during the second online P2P meeting. During this time, the WES NKEs launched a “Desk Study on CDW management in Europe and in the South Mediterranean countries” in order to enhance the exchange of know-how among the peers. The Desk Study was the result of: a literature review; combined expertise of the WES Non-Key experts; contributions from peers, and the results of the WES study visit to Marseilles in late September 2022.

During the second P2P meeting, the peers were updated on the on-going Desk Study and were guided on how they can contribute with their expertise. The aim was to collect the most accurate information (including data), as well as good practices from the WES PCs with their help. In focus were CDW management solutions that have been successfully implemented in EU and Southern Mediterranean countries, that are of relevance for the context and needs of WES PCs.

The final draft of the Desk Study (in English) was presented to the peers during the third and last P2P meeting. Although the Desk Study was a tool to strengthen the P2P exchange, it is very useful for policy makers who play a role in enabling change toward circularity and sustainability in this sector.

Jordanian and Egyptian peers were particularly curious to learn more about the practices in place in the other South Mediterranean countries. Lebanese colleagues gave access to 3 technical publications recently released. The WES NKE Ahmed Jelidi from Tunisia, shared the experience of Tunisia on public procurement in the building sector with a focus on waste management, while the Coach and the other EU-based NKEs shared a wealth of relevant EU cases.

The agendas of the three on-line P2P meetings are included in annex to this report, while the rest of the P2P materials are available on the WES website at: https://www.wes-med.eu/activities_type/re-4-p2p-management-of-construction-demolition-waste-and-waste-from-electrical-and-electronic-equipment/.

4 PROFILES OF THE PEERS

In total, 23 peers were appointed to participate to the P2P process. All WES PCs were represented. The graphs below indicate the distribution among countries, institutions, gender and age of the peers.

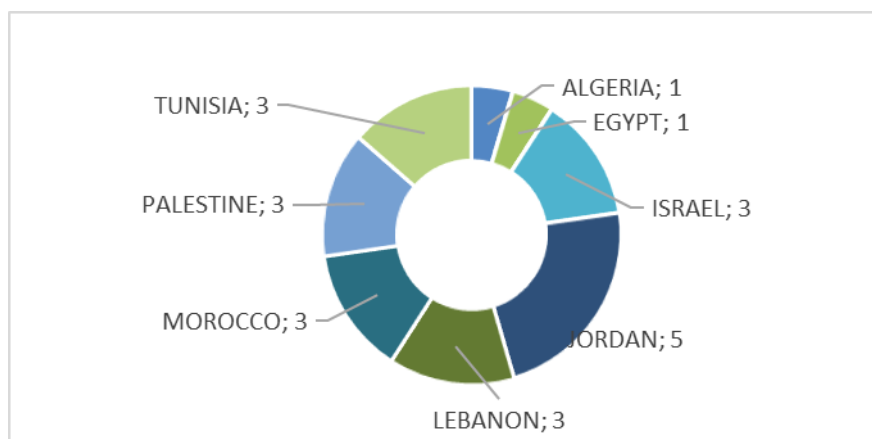


FIGURE 5-1: REPRESENTATION OF PEERS PER COUNTRY

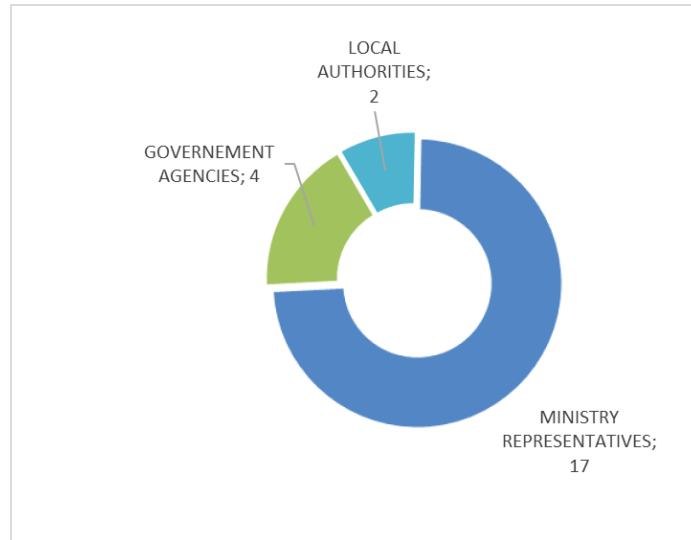


FIGURE 5-2: REPRESENTATION OF PEERS PER TYPE OF INSTITUTION

5 STATISTICS GENDER AND YOUTH

In terms of gender balance, the event was within the WES overall high target of 50% +/-10% (58% of trainees were women and 42% were men), while 17% of the peers were below or equal to 30 years old (or between the age group 18-30) and 83% were above 30 years old.

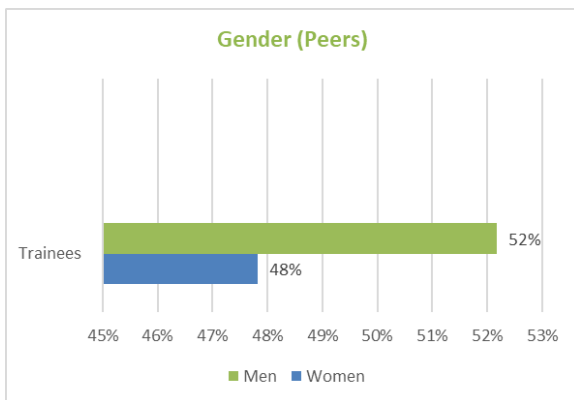


FIGURE 5-1-1: GENDER (PEERS)

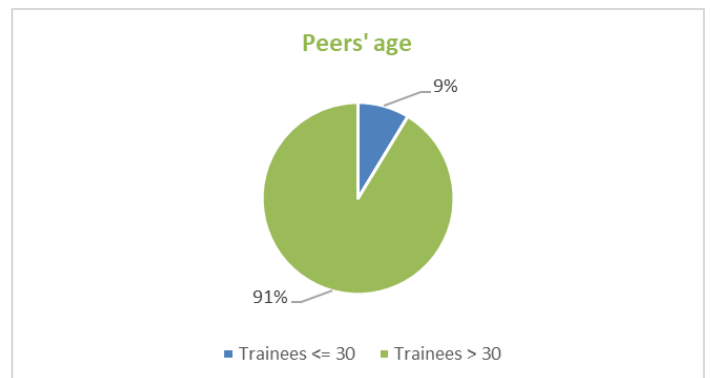


FIGURE 5-1-2: AGE (PEERS)

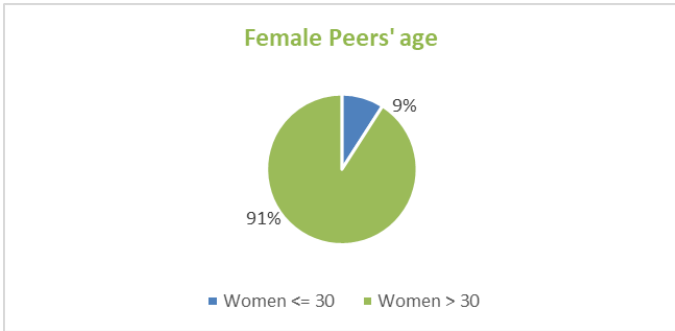


FIGURE 5-1-3: FEMALE PEERS - AGE

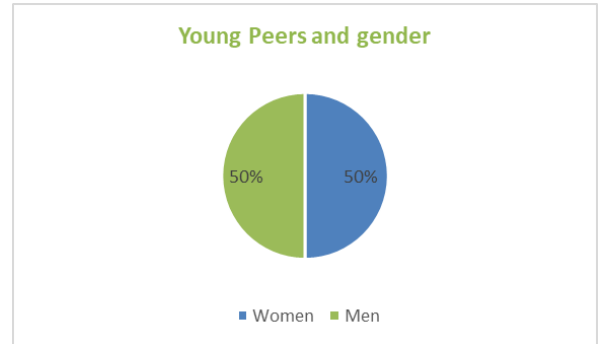


FIGURE 5-1-4: YOUNG PEERS (18-30) - GENDER

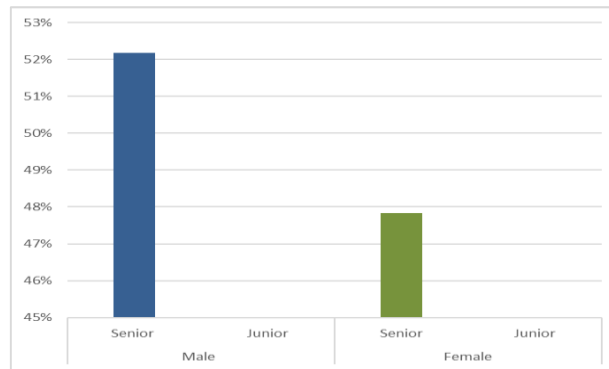


FIGURE 5-1-3: GENDER - POSITION LEVEL

6 EVALUATION OF THE P2P PROCESS BY THE PEERS

A. Organisational, administrative and planning issues before and during the process

Thirteen peers filled out the evaluation questionnaire. The overall rating of the P2P process was 3.5 out of 4 (quite satisfactory).

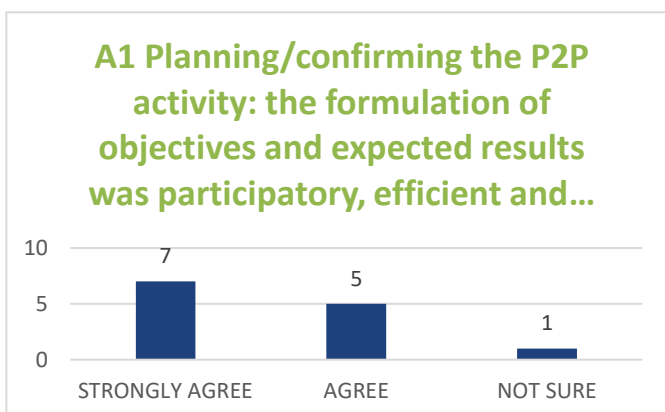


FIGURE 6-1: PLANNING FOR THE P2P ACTIVITY (A.1)

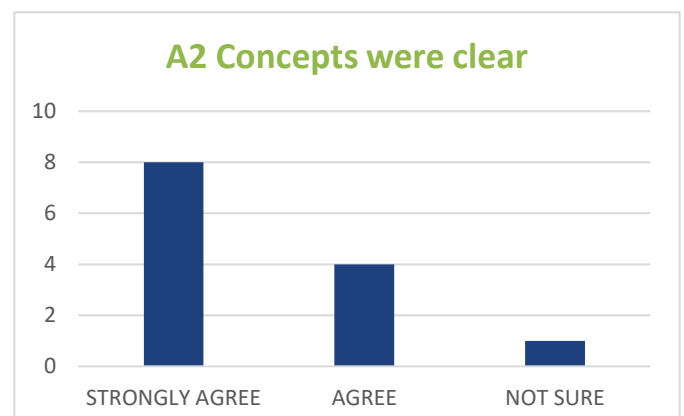


FIGURE 6-2: CONCEPTS WERE CLEAR (A.2)

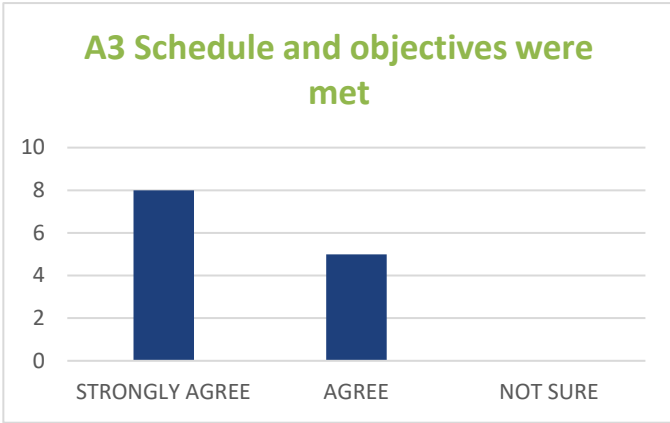


FIGURE 6-3: SCHEDULE AND OBJECTIVES WERE MET (A.3)

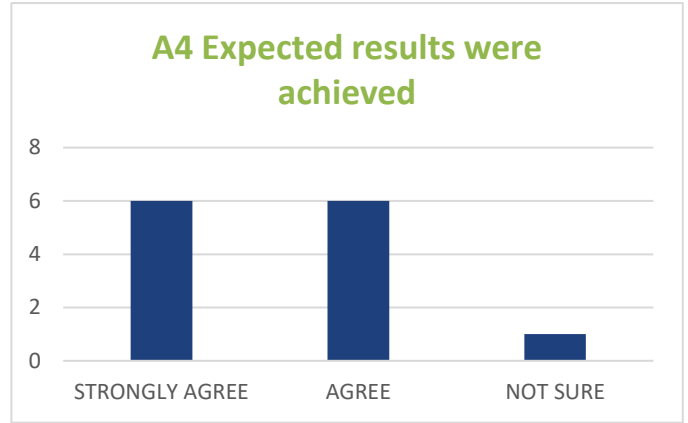


FIGURE 6-4: EXPECTED RESULTS WERE ACHIEVED (A.4)

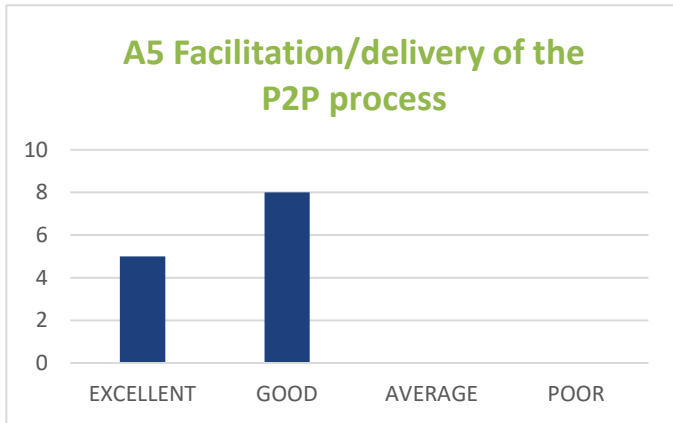


FIGURE 6-5: FACILITATION/DELIVERY OF THE P2P PROCESS (A.5)

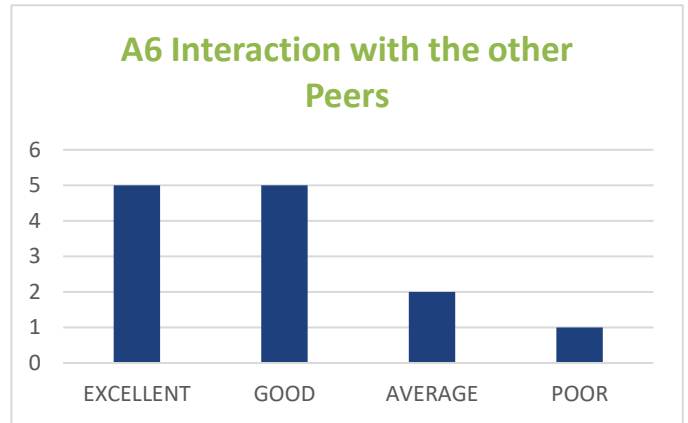


FIGURE 6-6: INTERACTION WITH THE OTHER PEERS (A.6)

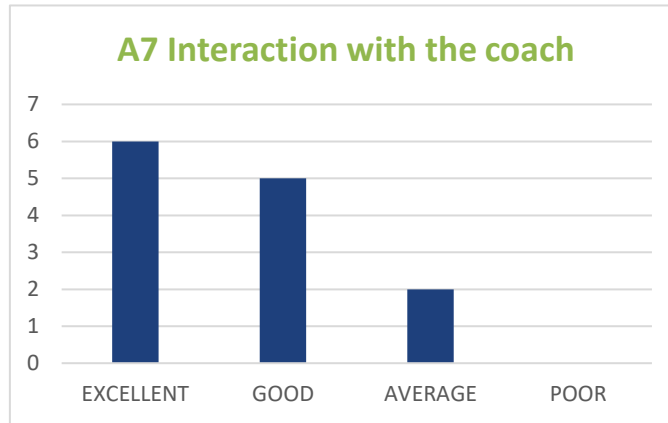
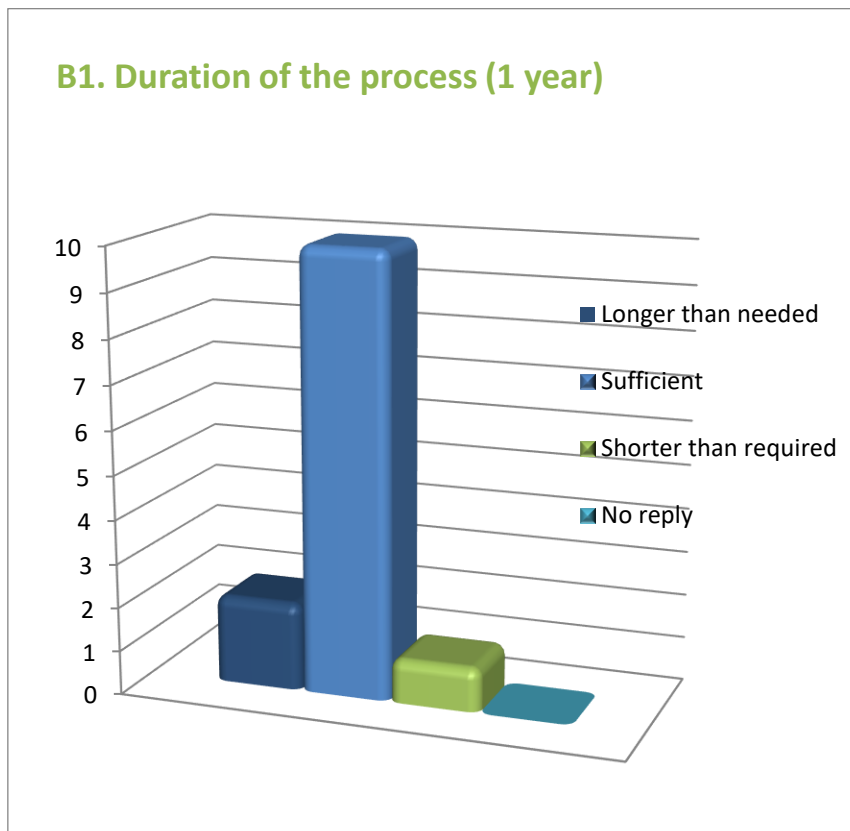


FIGURE 6-7: INTERACTION WITH THE COACH (A.7)

B. Specific feedback by the Peers:

FIGURE 6-8: DURATION OF THE PROCESS



Summary of most frequent statements made by the participants

B2	How did you benefit most from this P2P process?
	<ul style="list-style-type: none"> • The study visit was the most beneficial activity. • The online meetings were a bit difficult to follow in terms of content and peer-to-peer connection and mutual learning. • We started setting up a study of construction and demolition waste in Jordan to start solving the problem through tours and field visits, many of them in different countries. • Partage d'expérience réussies, Q/R durant les webinaires, video. • The sharing of experience on technology and government incentives. • We are now ready to move forward. • I gained a strong knowledge on the subject.
B3	What did you like best?
	<ul style="list-style-type: none"> • Having a professional POC in the field of CDW this was a great resource to consult with and offer other connections in EU countries. • Partage d'expérience réussies, Q/R durant les webinaires, video. • The study tour and opportunity to be part of a desk study • The expanded scope of exchange between peers. • Le niveau d'échange d'information. • La visite sur terrain.

Summary of most frequent statements made by the participants	
	<ul style="list-style-type: none"> • The case studies. • Everything.
B6	What needs to be improved or could be done differently?
	<ul style="list-style-type: none"> • Couverture vidéo de toute la mission de visite de terrain avec le processus, les Q/R, les explications des étapes et des éventuels business modèles ... avec partage de cette vidéo avec des présentations et des documents dans le même sens avec l'ensemble des pairs (notamment ceux qui n'ont pas assisté à la visite d'étude, et ce dans l'objectif de renforcer les capacités de toute l'équipe ainsi que tous les partenaires concernés (à travers le partage). • The course could be compressed into a shorter timeframe in order to keep active and engaged participation; Having a physical meeting or the study visit at the start of the program would have created a connection between the peers earlier on and improved commitment to the program. • Avoir plus de temps en se qui concerne le retour d'expérience dans le domaine. • Donner plus d'importance aux attentes des participants. • Transfer of technology and laws between peers. • Stay longer and dive more into technicalities.



C. Overall Assessment

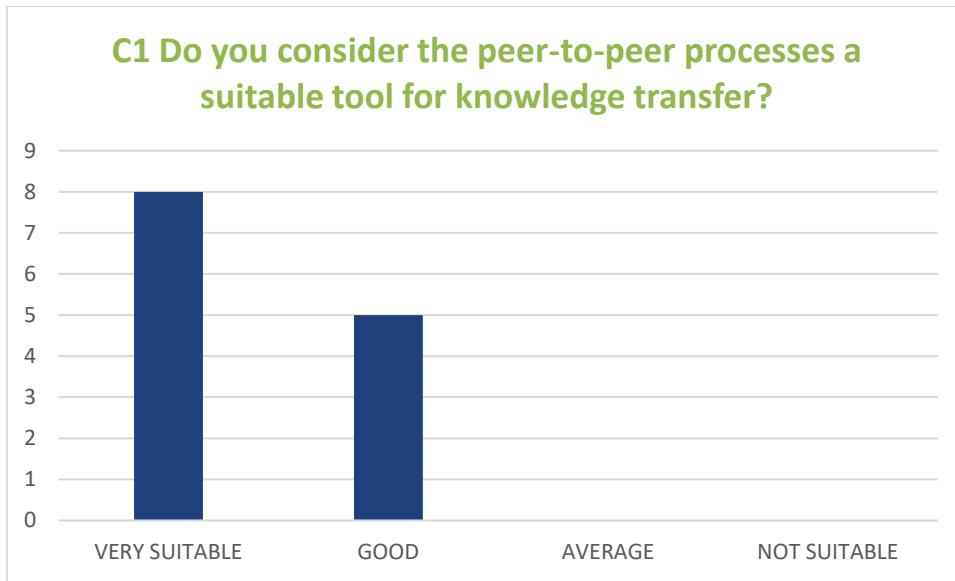


FIGURE 6-9: SUITABILITY OF THE PROCESS FOR KNOWLEDGE TRANSFER

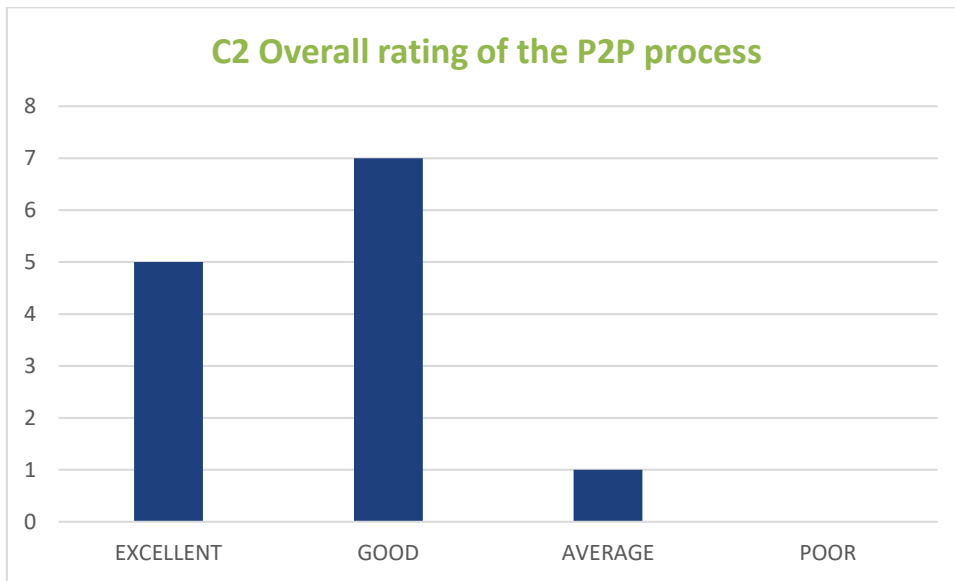


FIGURE 6-10: OVERALL RATING



7 CONCLUDING REMARKS

This P2P process primarily relied on active peer engagement, mobilization, and collaborative contributions, fostering the exchange of experiences, knowledge, and expertise on the challenges associated with construction and demolition waste.

The activity played a pivotal role in promoting South-South and North-South cooperation and facilitating fruitful exchanges on this topic. This is also reflected in the WES video on CDW that included testimonials of the participating Peers (see <https://www.youtube.com/watch?v=zgQrSYX8yOw>). The latter has been widely disseminated throughout the region via the WES communication and outreach channels.

The WES project, serving as a facilitator and moderator, dedicated comprehensive logistical and technical resources to ensure the success of the initiative, including the coordination of several online sessions, bilateral communication with the Peers and the organization of a technical study visit to Marseilles with a combined workshop session. The WES NKEs that supported the P2P exchange provided requested case studies, technical insights and also engaged the Peers in the development of the Desk Study on CDW management in Europe and in the South Mediterranean countries.

Despite the inherent challenges in mobilizing the busy peers and finding dates that suited everyone for the plenary online meetings, this P2P process succeeded to facilitate and sustain a flow of interactions among the peers as well as between the peers and various experts. It was also assessed positively.

The pivotal face-to-face interaction of the peers during the study visit to Marseilles played a crucial role in consolidating the progress of the P2P exchange and also for enriching the Desk Study.



8 ANNEXES

8.1 AGENDAS OF THE 3 ONLINE P2P MEETINGS

1st virtual meeting of the P2P exchange Thursday, 7th of April 2022 (11:00 – 13:00 CET)

11:00 – 11:10 Introduction to the WES Project, Anis Ismail (WES Key Environmental Expert)

11:10 – 11:20 Introduction of the Regional Activity (RE-4-REG), Francoise Bonnet
(WES Non-Key Expert/ACR+)

11:20 – 11:50 Presentation of the P2P process, Danko Aleksic (WES Non-Key Expert/ACR+)
Expectations from the Peers, expected outcomes of the process, defining priorities

11:50 – 12:30 Guided tour-de-table

Peers will be asked to present themselves and their institution, to highlight what they want to learn and what they want to share with others

12:30 – 12:50 Insight of CDW selective collection practices, Jean-Benoit Bel (ACR+)

12:50 – 13:00 Wrap-up and conclusions



2nd virtual meeting of the P2P exchange on CDW **Thursday, 16th of June 2022 (11:00 – 12:30 CET)**

11:00 – 11:10 **Welcome & Introductory remarks**, Danko Aleksic (WES Non-Key Expert/ACR+)

11:10 – 11:30 **Regional Strategy for the Prevention and Management of CDW**, Barbara Cholley,
(Région Sud, Provence-Alpes-Côte d'Azur, France)

11:30 – 11:50 **Presentation of the results of the Survey**, Danko Aleksic (WES Non-Key Expert/ACR+)

11:50 – 12:20 **Guided tour-de-table and presentation of case studies from the partner countries on CDW**

Peers will present good practices on C&DW management solutions identified in their respective countries

12:20 – 12:30 **Wrap-up and conclusions**, Anis Ismail (WES Key Environmental Expert)



3rd virtual meeting of the P2P exchange on CDW

Wednesday, 15th of March 2023 (10:30 – 12:30 CET)

10:00 - 10:30 **Connecting to the platform**

10:30 - 10:35 **Welcome and introduction to the meeting**

- Anis Ismail (WES Environment Key Expert) and Françoise Bonnet (WES Non-Key Expert/ACR+)

10:35 - 10:45 **WES video on CDW management**

10:45 - 11:00 **Overview of the desk study on CDW (content and methodology)**

- Françoise Bonnet (WES Non-Key Expert/ACR+)

11:00 - 12:00 **Case studies from the region on CDW management**

- **Presentation of the Navarra Region case study (Spain)**, by Susana Aldaz Goñi, Coordinator of Circular Economy Area at GAN-NIK, Gestión Ambiental de Navarra (20 Min)

- **Selected case study(ies)**, by Ahmed Jelidi (WES Non-Key Expert/ University of Tunis) (20 Min)

- **Guided tour de table 1**, Peers will briefly present good practices on CDW management solutions identified in their respective countries. Moderated by Françoise Bonnet & Ahmed Jelidi (20 Min)

12:00 - 12:20 **What can be done to keep this peer group going once the WES activity is over?**

- Guided tour de table 2 moderated by Françoise Bonnet & Ahmed Jelidi

12:20 - 12:30 **Wrap up, closing remarks and evaluation of the overall P2P Process**

- Anis Ismail (WES Environment Key Expert)



8.2 LIST OF PEERS

TYPE OF INSTITUTION	TITLE (Mr/Ms)	FIRST NAME	LAST NAME	POSITION/ FUNCTION	ORGANISATION/NSTITUTION
MINISTRY REPRESENTATIVES	Mr	Mohamed	BOUCHAMA	Study and project manager	Ministry of Environment
MINISTRY REPRESENTATIVES	Ms	Nourhan	ESSAM ABDALLAH	Environmental engineer	Ministry of Environment
MINISTRY REPRESENTATIVES	Mr	Roi	SHTARK	Waste management, Jerusalem District	Ministry of Environmental Protection
MINISTRY REPRESENTATIVES	Mr	Tsafrir	GIDRON	Policy Division	Ministry of Environmental Protection
MINISTRY REPRESENTATIVES	Mr	Uri	TAL	Waste Division	Ministry of Environmental Protection
MINISTRY REPRESENTATIVES	Mr	Ahmad	ABDEL RAZZAQ ELSHEBLI	Field engineer	Ministry of Environment
MINISTRY REPRESENTATIVES	Mr	Yazeed	MOHAMED SALEM TAHER AL-HAFNAWI	Chemical Engineer/ Field Engineer	Ministry of Environment. Hazardous Waste and Hazardous Materials Management Directorate
MINISTRY REPRESENTATIVES	Mr	Abd Al- Qader	SALAMAH EBEID AL MANASSER	Civil Engineer	Ministry of Local Administration. Solid waste Management Directorate

Water and Environment Support

in the ENI Southern Neighborhood region

LOCAL AUTHORITIES	Ms	Kifaya	AHMED MOHAMMAD AL BATAH	Head of public Safety Department	Greater Amman Municipality
MINISTRY REPRESENTATIVES	Mr	Nezar	ABDAL RUOF ALI HADDAD	Environmental engineer	Ministry of Environment
MINISTRY REPRESENTATIVES	Mr	Bassam	SABBAGH	WES Environment Focal Point for Lebanon	Ministry of Environment
MINISTRY REPRESENTATIVES	Ms	Jamila	AL HADI	Environmental engineer	Ministry of Environment
LOCAL AUTHORITIES	Mr	Jihad	BEKAI		Municipality of Beirut
MINISTRY REPRESENTATIVES	Ms	Loubna	EL ABED	Head of the Non-Hazardous Waste Recovery Department	Ministry of Energy, Mines, Water and Environment
MINISTRY REPRESENTATIVES	Ms	Nada	TAHIRI	Manager of the Non-Hazardous Waste Recovery Service	Ministry of Environment
GOVERNMENT AGENCIES	Mr	Karam	AMZIL	Head of the Environmental Management Service	Regional Directorate of Marrakech-Safi
MINISTRY REPRESENTATIVES	Ms	Nisreen	TARHI	Water and Wastewater Engineer	Ministry of Local Government
MINISTRY REPRESENTATIVES	Mr	Sami	KHAROUF	Director of Planning of Housing	Ministry of Public Works and Housing
GOVERNMENT AGENCIES	Ms	Dalia	AL ASMAR	Environmental Engineer	Environment Quality Authority
GOVERNMENT AGENCIES	Ms	Linda	A.S. AL KHATIB	Architectural Engineer	Palestinian Engineers Association
MINISTRY REPRESENTATIVES	Ms	Zouhour	METHAMEM HELALI	Chef du Cabinet	Ministry of Environment



MINISTRY REPRESENTATIVES	Ms	Souhir	LAADHARI	Director	Ministry of Environment
GOVERNMENT AGENCIES	Ms	Imen	BEN SOYAH	Deputy director	CITET



8.2 ACTIVITY MATERIALS

All of the materials including presentations, photos, press release, etc. are available at:

https://www.wes-med.eu/activities_type/re-4-p2p-management-of-construction-demolition-waste-and-waste-from-electrical-and-electronic-equipment/

