Mitigation Enabling Energy Transition in the MEDiterranean region – Phase II



## WP4: Promote Efficient Appliances & Develop the Market

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Regional Center for Renewable Energy and Energy Efficiency المركز الإقليمي للطاقة المتجددة وكفاءة الطاقة

Phase II

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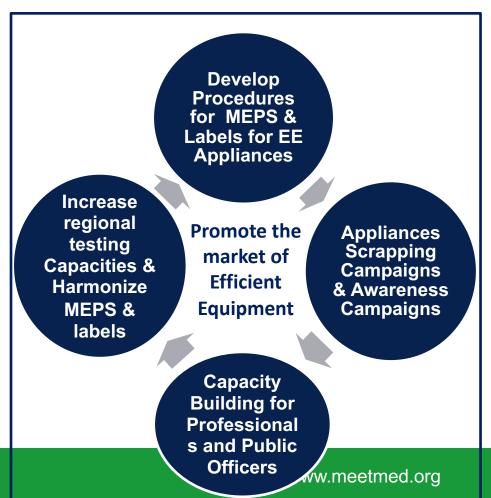


### WP4 in few words : Promote Efficient Appliances & Develop the Market

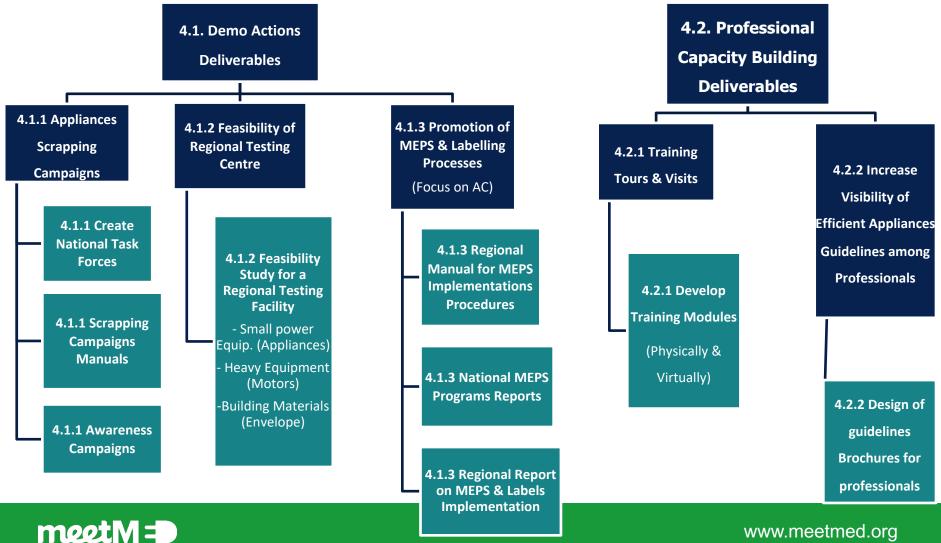
- WP4 focuses on promoting the use of energy efficient appliances in the SEM Countries in order to help in the global energy security & contributes to economical growth.
- The time plan for implementation of WP4 is Jan 2021 → June 2024 the project's life time (~ 3.5 yrs).
- The main design concept was to focus on
   Practical on-ground Implementation and that is why WP4 consists of 2 main Pillars:
- 1) Demo Actions & Projects.
- 2) Capacity Development Activities



### **WP4 Objectives**



### **WP4 Deliverables & Expected Outputs**

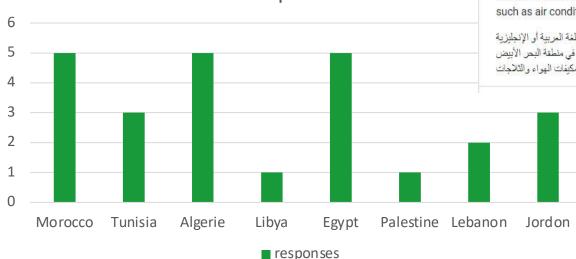


Phase II



### WP4.1.1 status

 Survey on appliances scrapping distributed, receiving 25 responses, and waiting to receive further responses



### responses

MEPS Promotion and Labeling Process for Appliances with a Special Focus on Air-Conditioning **Together We Switch to Clean Energy** Funded by the European Unior Appliances Scrapping in the Mediterranean region Please, feel free to fill out this survey in Arabic or in English. This survey aims to understand the current situation and challenges facing electronic and electrical waste management in the Mediterranean region, especially the appliances that consume a lot of energy such as air conditioners and refrigerators. من فضلك ، لا تتردد في ملء هذا الاستيان باللغة العربية أو الإنجليزية يهدف هذا الاستبيان إلى فهم الوضع الحالى والتحديات التي تواجه إدارة النفايات الإلكترونية والكهريائية في منطقة البحر الأبيض المتوسط، وخاصبة الأجهزة التي تستهلك الكثير من الطاقة مثل مكيفات الهواء والثلاجات

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**Mitigation Enabling Energy Transition in** 

the Mediterranean Region

https://docs.google.com/forms/d/e/1FAIpQLSd1UJIXm3AX1YoR4GNPnYpN0G1an5efGkxb XjJYE8QY-NQAMw/viewform



### WP4.1.1 status

- Data collection and analysis regarding polices and legislations regulating appliances collection, dismantling, and safe disposal (8 countries).
- Fact sheet is underdevelopment for each country, from which collective brochure will be developed reflecting the status of Appliances scrapping in the concerned countries

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Mitigation Enabling Energy Transition in the MEDiterranean region Together We Switch to Clean Energy

Fact sheet on the appliances scrapping management situation in Egypt

#### I. Background information 2023

Population	104.5 million
Municipal Solid Waste (MSW) Generation:	27 million tons/year
Per Capita MSW Generation:	
- Urban areas	0.25:0.4 kg/day/capita
- Rural areas	0.55:1,2 kg/day/capita
Agricultural waste	32 million tons/year
Construction and Demolition Waste	6 million tons/year
Medical waste generation	0.045 million tons/year
Industrial waste	7 million tons/year
Hazardous waste	0.6 million tons/year
Electronic waste	0.585 million tons/year <sup>1</sup>

#### II. TECHNICAL PERFORMANCE

Electronic waste	0.585 million tons/year
ICT and Telecommunications Equipment CPUs, screens, monitors, mice, printers, keyboards, networking equipment, laptops, audio amplifiers, CDs, DVDs, and video cameras.	%
Large Household Appliances Fridges, Freezers, cookers, air conditioners, TVs, monitors, screens and fans	%
Small Household Appliances Hair dryers, fryers, and swing weaving	%
Consumer Equipment Items used for consumer use will also be included in the electronic waste sector. This category for consumers is	%

<sup>1</sup> Abdelbasir et al. (2018)



Fact sheet on the electronic waste management situation in

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all forms of activity that will be important to serve consumers. Many activities fall into this category.	
Medical Equipment And there are still many who are not aware that this waste is also included in medical matters. If this is added up, it can be calculated how much the amount of waste is. So, electronic equipment is involved in injury, treatment, prevention, and detection activities.	%
Office Electronics calculators, photocopying equipment, electronical, typewriters, telephones, fax machines	%
Recycled	%
Final Destination	%
Open dumb site	
Open dumb site	%
Sanitary Landfills	1 <sup>2</sup>
Sanitary Landfills	%
- Operational	%
- Planned	%
- Under construction	%
- Constructed	%

#### III. Policy and planning environment

A national policy and planning, which defines the basic framework of the electronic waste sector

#### IV. Legal framework

The Hazardous materials and waste procedures were made clear in Articles 53 to 64 of waste management regulation law no. 202 for 2020.

The formation of a technical committee under the Waste Management Regulatory Agency to be charged with issuing unified lists of hazardous materials and waste was also stipulated in Article No. 53.

The duties of the committee are defined in Article 48 of the executive regulation of the law no 722 for 2022.

<sup>2</sup> Elnasreja landfill, Alexandria Governorate

Fact sheet on the electronic waste management situation





# **Consultation missions**

Morocco:

- Consultation mission was arranged back-to-back with training under WP 4.2.
- 65 participant representing governmental and private sector

Egypt:

- Consultation mission was arranged back-to-back with online training under WP4.2 with registration and participation of around 160 participant
- 15 companies have been identified dealing with E-waste scrapping

Jordon:

• Consultation mission included Meeting with RSS, JREEF, UNDP, FES, the Ministry of Environment and a private company dealing with the appliances scrapping

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http://www.chloride; /batteries.com	الاسم: تشغیری: الاسل:info@chloride-batteries.com	فطعة M11 - لتوسعات الشعائية المنطلة لصناعية . جهاز معينة لاكترير	عوير بطريات فرصاعن	شركة كلررايد ابجيت	
http://einisr.net/ar/index. html	الاسم; عقیقون: الایمیل:	الطبلة رقم (٧٠، ٢١) . التطلقة المتاعية السابعة ـ جهال مدينة السفات	ندور يطريان فرسنص	شركة سناهات ليلاسنيك والكهرياه المصرية (السر الألمالية)	
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	الإسبر: بر شنادي عبد العلم التيفون: – 1001333721 - 0100133372 01002392243 - 01027101009 الايميل: shady abdelaleem@hotmal.com	۲۹ب انقطعة ۲۹ . انتطاقة المناحية الماضية . السامي من انقرير البيزة	عوير ضطفات الاكثرونية والكهريخية	شرعة بترنشيونق تقولوجي جروك 116	,
http://www.eerc- group.com/	الأسر: م أحدد سلم تتيفرن: 01116604833 الاسيل: <u>info@verce</u> , <u>info@verce</u> group.com	مصلح لثنياب ـ السامن من تقوير ـ السلطة المناجلة السلاسة ـ جهاز مدينة السامين من القوير	عوير استلفات الإكثرونية لتصول طي المعان اللينة رنتل مكينت ملطة من طريق المطية الكينيائية قط	الثرفة المعرية لتوريز المتفات الإفترونية EERC	Y

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https://spearink.en.ecolaz /a.nct	الاستر: بر حصار هاشم الشيفري: 01228791236 – 01201114759 الايسيل: essam@spearink.com	منبلة العرقين ، النشية الجنيدة قسم كرجول الاستقدرية	تصليع وتبنيع الآلات والأهبار وعيرانها	درکة spearink	-
		الطعة رقم (١٥) . المنطلة الصفاعية الأولى . معيقة ١٥ ماير . معاطة القاهرة	نكسور وقرو لمطلقات الإنكتروكية	مسلع عوير الملكات الإكثرولية والفهريانية (موسسة العريشي) للنهارة والمقاعة.	
<u>https://triplere.net</u>	الاسم; م المنذ يوسف الاسل: info@Triplere.net موهل: 01000691011 - 01122294440	اللغة رقم (١٩) . المنطقة المناعة . منطقة المعازن المناعات المنجرة (مثروع الثينيا). السفس من أكوير.	عوير المطلات الالتروتية	مسلح عرير الملكات الإكلاروغية (اريبل ري).	1
https://www.facebook.co m/%DB%B1%D0%B4%DB %B3%D8%B4%D0%B4%D9 %B4~%D9%B3%D9%B4~ Becode-Kee- /153771115875477	الاسد: بار حسلا الدين مصطفى رقم لشيلون: 01223620054	انطعة رقم (٢٠) - مجنو السناهات السفيرة - سلامًا الطورين بكنظفة السناهية - مدينة السانات,	منيك الفرز والقرير شطفت الإكثرولية	مصلح عرير الملقات الانترونية (ريسيكل عن)	1
56 - 56	ممل جمع فمنفت الاتثرونية	لأملية NGOs والسلاع الشاس في	المتاع المتشاعا ا	22 C	
	الاسترد // شريف خيسي التيفون: ١٣٣٣٣٧٩ . ٧ الايسيل: sissa@mobinil.com	طربة لتفية	نهنف انثركة في الترحية وسيل ومع المطلات الأفترونية المطلقة	مرينيل ( <u>Mobini</u>	
	الاسور عبري ابراهوم يوسف الشقون: 0101300030 الاسفاد - Amr. Ibrahim Youssef@vodafone.com	فترية تنفية	نهف تشركة في يرابح نرعية للفيد منع ضطلات الأكثروتية المطلقة	فردافون	. 1
https://soyzabaleen.blogs pot.com/p/electronic: waste-recycling: project_8105.html	الاسم: عزت للعملي تعلقون التلفين: ١٩٧٢٦٢٠٦٢٠ الايسيل: ezzetmeem1@yahoo.com	شارع بریس حسی ملئیة تامر _	متقدة اهلية تهنف الى جنع المطلقات الاطار رقية	Spirit of Youth	1



## WP 4.1.3

### **Reports under preparation:**

- Regional Report on MEPS/Labels Implementation with Focus on Air Conditioning.
- Manual Procedure for MEPS/ Regional Certifications Implementation
- National MEPS Program for Libya
- National MEPS Program for Lebanon

### **Consultation Missions:**

• Morocco - Tunisia



Survey on appliances scrapping distributed, receiving 10 responses, those responses have been analyzed to conclude the main topics of the upcoming capacity building activities within WP4

After the analysis and identifications of the gaps we started a data collection process internally covering the needs assessment for the 8 relevant countries in the appliances, scrapping and the awareness related to them



Mitigation Enabling Energy Transition in the Mediterranean Region

 "Awareness and Capacity Building" Questionnaire

 Funded by the European Union
 Together We Switch to Clean Energy

Activity A4.2 Aims to enriching experts' and public bodies' officials knowledge in the energy efficiency of appliances and their implementation & Increase Visibility of Efficient appliances. This will be done through regional training, study visits and dedicated tools for dissemination as "brochures" on topics related to the testing centers, MEPS and labelling promotion for appliances with a special focus on air-conditioning.

This Questionnaire is one of the main tools to identify the needs and gaps among the relevant countries to be able to conduct the trainings and raise the awarness in theneeded areas and we are relying on your support as local experts to fulfill the data nedded.

Juestions							
to you have any regional or international programs related to EE in your country?	Yes	No				0	
f yes, please give us more information about the program?							
re there any local/regional programs you know that focus on EE in appliances in your country?			and all another and	1			
Vho is conducting this program? Is it possible to share the contacts?	Stakeholder	Email	Phone Number	Position	Organization	Program link	
			8			5	
o you have any awareness campaign related to EE in the residential sector?	Yes	No	(			1	
yes, please explain what kind of the campaigns?						5	
Who is conducting this awareness campaign? Is it possible to share the contacts of the involved	Stakeholder Name	Email	Phone Number	Position	Organization		
		1		and the second			



Stakeholders mapping have been developed to all the countries including all the public, private and international organization

The stakeholders have been identified to primary, secondary and others

key players	and stakeholders in			
		Plicy Making and Puplic Agencies	Private Sector	Regonal and International Co-
	Primary Players	APRUE MEM IANOR		RCREEE
Algeria	Secondry Players		APOCE PROMI	UNDP WB
	Other Players	ONS CDER CREDEG		IEA
	Primary Players	EE Unit -SG for CoM MoERE EOS		RCREEE
-	Secondry Players	Federation of Egyptian	CESCP	UNDP WB GIZ
Egypt	Other Players	EgyptERA GOEIC MFTI NREA NRC	EAG	EEIGGR GEFF AFREC IEA

ers l	Mapping for Activity	4.2				
#	Abbreviation	Stakeholders Name	Type of stakeholder	Website		
		Algeria				Stakeholders Colour Coding
1	APRUE	National Agency for the Promotion and Rationalization of Energy Use	Governmental Institutions	http://www.aprue.org.dz		Essential and Key Stakeholder
2	MEM	Ministry of Energy and Mines	Governmental Institutions	http://www.mem-algeria.org		High Potential Stakeholder
3	ONS	National Statistics Office	Governmental Institutions	http://www.ons.dz		Relevant Stakeholder
4	CDER	Renewable Energy Development Center	Research and Academia	http://www.cder.dz		International Stakeholder
5	CREDEG	Centre for Research and Development of the Electricity and Gas	Research and Academia	http://www.credeg.dz		
6	IANOR	Algerian Institute of Standardization				
7	SONELGAZ	National Society for Electricity and Gas (SONELGAZ)	Utilities	http://www.sonelgaz.dz		
8	CREG	Electricity and Gas Regulation Commission (CREG)	Governmental Institutions	http://www.creg.gov.dz		
9	MDIPI	Ministry of Industry and Mines (MDIPI)	Governmental Institutions	http://www.mdipi.gov.dz		
10	MESRS	Ministry of Higher Education and Scientific Research (MESRS)	Governmental Institutions	https://www.mesrs.dz		
11	CRTSE	Research Center in Semi-Conductor Technology for Energy (CRTSE)	Research and Academia	https://crtse.dz/	EA	
		Egypt				
1	EE Unit -SG for CoM	Energy Efficiency Unit – Secretary General for Cabinet of Ministers	Governmental Institutions			
2	MoERE	The Ministry of Electricity and Renewable Energy	Governmental Institutions	http://www.moee.gov.eg		
3	EOS	Egyptian Organization for Standardization and Quality	Governmental Institutions	http://www.eos.org.eg		
4	ТА	Tourism Authority (TA)	Governmental Institutions	http://www.egypt.travel		
5	EgyptERA	Egyptian Electric Utility and Consumer Protection Regulatory Agency	Utilities	http://www.egyptera.org		
6	CAPMAS	Central Agency for Public Mobilization and Statistics	Governmental Institutions	http://www.capmas.gov.eg		
7	MFTI	Ministry of Trade and Industry	Governmental Institutions	http://www.mfti.gov.eg		
8	NREA	New and Renewable Energy Authority	Governmental Institutions	http://www.nrea.gov.eg		
9	NRC	National Research Center	Governmental Institutions	http://www.nrc.sci.eg/nrc		



Action	Description	Status
<text></text>	<ul> <li>✓ Regional initiatives for scrapping and it's technicalities</li> <li>✓ The regulatory frameworks and main pillars for enhancing it</li> <li>✓ Analyzing the countries current situation</li> </ul>	Achieved
<ul> <li>Conducting the national consultation mission in cooperation with activity 4.1.1 in Egypt with the to Egyptian Electronics Recycling company (EERC)</li> </ul>	✓ The national consultation mission for appliances scrapping in Egypt organized in cooperation with Egyptian Electronics Recycling company (EERC) to have more information about the scrapping and recycling industry, and to identify the potential of collection, recycling and marketing the materials from scrapped appliances.	Achieved



Ac	tion	Description	Status
•	Preparing for the visualization tool on appliances	<ul> <li>✓ Videos have been created based on the surveys on the below topics</li> <li>✓ Human behavior, labelling system for home appliances and the AC technologies including inverter</li> </ul>	Achieved
•	Conducting the national consultation mission in cooperation with activity 4.1.1 in Jordan to the most relevant stakeholders	<ul> <li>✓ Existing programs for appliances scrapping</li> <li>✓ Types and amounts of appliances</li> <li>✓ Existing market for appliances scrapping and recycling</li> <li>✓ Existing facilities dealing with appliances</li> <li>✓ Types of materials recycled and the potentiality of exporting</li> <li>✓ Main barriers and challenges facing appliances scrapping</li> </ul>	Achieved
•	Preparing the study tours on both Scrapping and appliances	<ul> <li>To exchanging in formation and enhance the capabilities of the national experts</li> </ul>	Under preparation
•	Preparing for the MMW	Focusing on the awareness raising for the scrapping	Under preparations

# THANK YOU

**meetM =D** Phase II

1. A

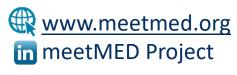


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For any inquires or comments, please don't hesitate to contact us



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