



iSea

Environmental Organisation for the
preservation of the aquatic ecosystems

Prosfero Final Report

Thessaloniki, 2023



ΠΕΡΙΒΑΛΛΟΝΤΙΚΗ ΟΡΓΑΝΩΣΗ ΓΙΑ ΤΗΝ ΠΡΟΣΤΑΣΙΑ ΤΩΝ ΥΔΑΤΙΝΩΝ ΟΙΚΟΣΥΣΤΗΜΑΤΩΝ

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Prosfero campaign

Prosfero campaign is funded by Procter & Gamble and AB Vasilopoulos and implemented by iSea with the aim to achieve cleaner beaches and coasts. Since 2018, 238 beach and underwater cleanups have been conducted throughout Greece in the context of the project and more than 86 tons of litter removed.

Prosfero campaign was conducted in Thessaloniki, Thessalia, Central Greece, North Euboea, Spetses, Evros, Galaxidi, Arkoudi and Chalkidiki including a total number of 4 informative events, 15 beach and 11 underwater cleanup actions. The organisation and coordination of the actions began in October 2022, while they were implemented during March, April, May and June 2023.

All the actions were coordinated by 4 iSea representatives. The representatives were responsible for the implementation of the informative events, the coordination of the participant volunteers, the introduction of the participants to the issue of marine litter, the presentation of the project and its actions and the data collection during the cleanups.

The present final report refers to the activities conducted in the context of the 16th – 17 wave of Prosfero.

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Beach cleanups

During March-June 2022-2023, 15 beach cleanups (A1-15) took place in the context of the 16th - 17th wave of Prosero campaign. In particular, beach cleanups took place Thessaloniki, Thessalia, Central Greece, North Euboea, Arkoudi and Evros Delta (Table1).

Beach cleanup details

1st Activity (A1): Karampournaki beach, Thessaloniki

2nd Activity (A2): Delta Axios beach, Thessaloniki

3rd Activity (A3): Peraia beach, Thessaloniki

4th Activity (A4): Agiokampos beach, Thessalia

5th Activity (A5): Stomio beach, Thessalia

6th Activity (A6): Kokkino nero beach, Thessalia

7th Activity (A7): Kalogeros beach, Central Greece

8th Activity (A8): Raches beach, Central Greece

9th Activity (A9): Glyfa beach, Central Greece

10th Activity (A10): Rovies beach, North Euboea

11th Activity (A11): Oreoi beach, North Euboea

12th Activity (A12): Pefki beach, North Euboea

13th Activity (A13): Arkoudi beach, Ionian

14th Activity (A14): Sperchios, Central Greece

15th Activity (A15): Evros Delta, Thrace



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Table 1: Supplementary data of "Prosero 16-17" beach cleanups conducted during March-June 2023.

Activity code	Date	Volunteers	Litter collected (kg)
A1	11-03-2023	75	140
A2	13-03-2023	160	850
A3	14-03-2023	17	72
A4	20-03-2023	40	30
A5	21-03-2023	37	17
A6	22-03-2023	9	53
A7	24-04-2023	66	25
A8	24-04-2023	61	60
A9	25-04-2023	40	25
A10	26-04-2023	7	19
A11	27-04-2023	40	19
A12	28-04-2023	52	56
A13	13-04-2023	6	150
A14	23-04-2023	4	70
A15	10-05-2023	6	53
Total		620	1,639



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Figure 1: Aspects from the beach cleanups conducted in Thessaloniki, Delta Evros, Sperchios and Arkoudi.





Beach litter monitoring results

In the context of the actions and with the aim to survey the abundance of marine litter in each area, beach litter was monitored according to the monitoring framework and list of items of the protocol established in the context of the Marine Strategy Framework Directive.

In total 1639 kg of litter were removed from the 15 beaches in Thessaloniki, Thessalia, Central Greece, North Euboea, Arkoudi and Evros Delta. A total number of 3867 litter items were recorded 87% of which were plastics. In accordance with the global bibliography and data, the most abundant litter type in all the actions conducted was plastic.

In Delta Axios (A2), the area with the highest density of marine litter, 566 items of litter were recorded during the survey. More than 850 kg of litter were removed and the area was mainly polluted by fishing nets.

Furthermore, Delta Axios beach (A2) is a really littered area, and it should be highlighted the fact that Delta Axios is a National Park with a significant biodiversity as at least 299 bird species have been recorded there, with 106 of them to nest in the area. Also, more than 370 species of flora have been recorded, some of them are protected. Although this area is one of the country's most important National Parks, it was seriously *επιβαρυσμένη* with a huge amount of litter that could be acknowledged as old, which indicates that the area is almost never cleaned up. Moreover, it must be noted that Delta Axios National Park was taken under protection after joining the Ramsar Convention and the regional network Natura 2000, something that is not consistent with its condition. Mostly plastic items were recorded such as plastic bottles, containers and oil containers. Last but not least the area is commonly used by local fishermen and it is also known as one of the most significant mussel farmings in Greece.



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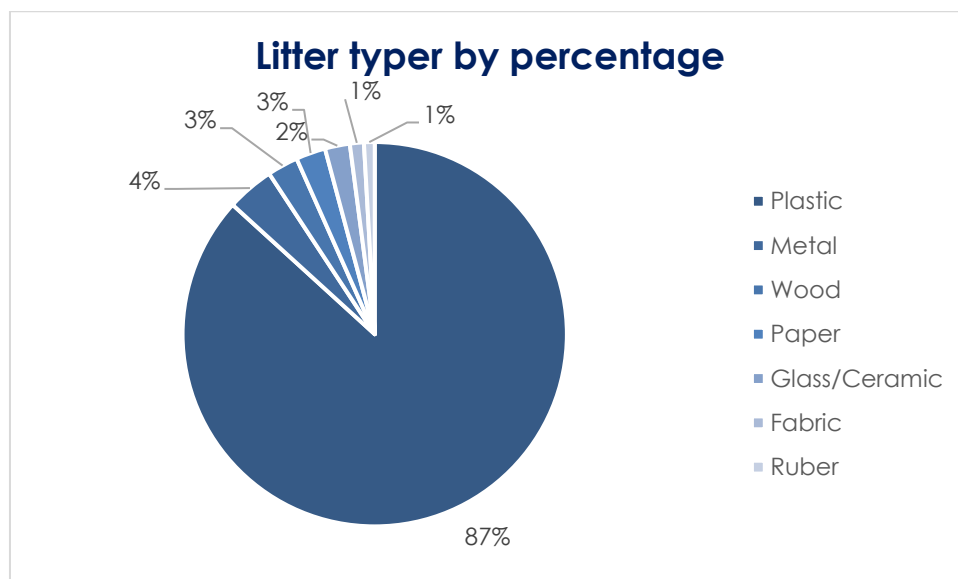
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In Agiokampos beach (A4) follows in terms of marine litter density, where 454 litter items were recorded during the survey. In contrast with the area's abundance of litter, only 30 kg of marine litter were removed, as a result of the quantity of cigarette butts and filters and small plastic pieces, plastic caps and string and cord which are items of low weight and size posing extra difficulties for their detection and removal from the natural environment.

Litter types

The average percentage of plastic found on all beaches is 87%. It should be mentioned that in Oreoi beach (A11) and Peraia beach (A3), plastic was by far the most abundant litter type, exceeding 95% of the total litter items recorded.



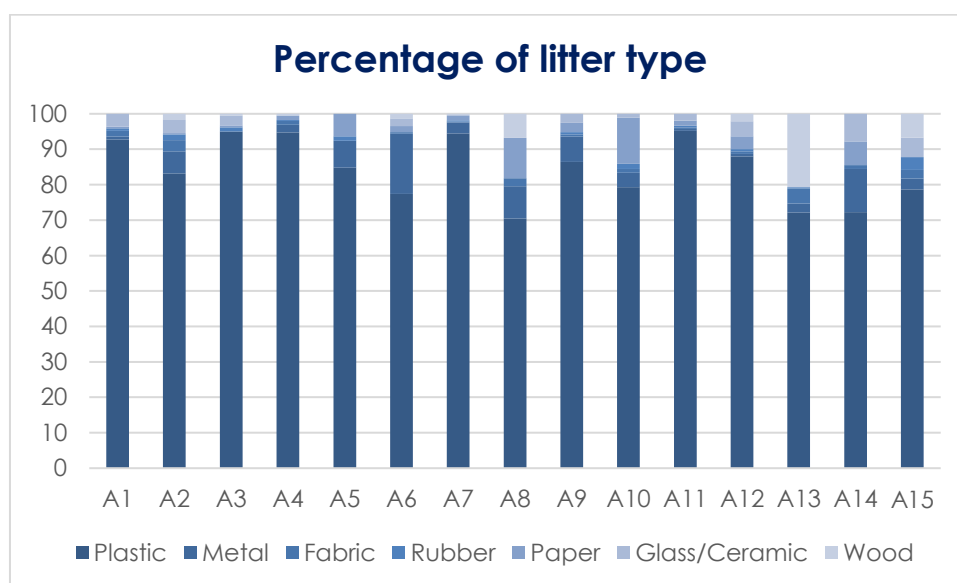


Figure 2: Collected litter types per beach cleanup, expressed as a percentage (%).

In Kokkino nero beach (A6) the most abundant litter type was plastic (77,4%), followed by metal (17%). It is impressive the fact that the percentage of metal is really increased in a beach of a small village, which shows increased touristic activity during the summer. Specifically, most of the metal items found in Kokkino nero beach (A6) were aluminum cans, aluminum foil and smaller pieces of metal. This could be attributed to the fact that during the winter the beach is not cleaned up often in combination with the construction processes implemented during the winter in the accommodation facilities that are located in the back side of the beach.

Furthermore, when it comes to Rovies beach (A10), the percentage of paper (13%) that was recorded was unusual. The items mostly found were, pieces of paper, pieces of newspaper as well as cigarette packets and paper coffee cups. This could be explained because this beach is mainly used for sunbathing and swimming during the summer, from both tourists and locals. All of the items found are commonly used in the beach.

Arkoudi beach (A13) percentages of litter are very interesting, especially the amount of wood (21%), that was impressively high. The items mostly found were corks and pieces of wood. Both of them possibly ended up in Arkoudi island because of the currents, as the island is uninhabited.



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Figure 3: Aspects from the beach cleanups conducted in Thessaloniki and Thessalia.





Litter items

Table 2: Ten most abundant beach litter items, expressed as a percentage %.

Top 10 litter items	Percentage %
Plastic pieces 2,5 cm > <50 cm	16%
Polystyrene pieces 2,5 cm > <50 cm	12%
Cigarette butts and filters	10%
String and cord (diameter less than 1 cm)	9%
Plastic caps/lids from drink	6%
Plastics bottles >0,5l	5%
Plastics bottles <=0,5l	3%
Straws and stirrers	3%
Plastic construction waste	3%
Cotton bud sticks	3%

In the context of the 15 beach cleanups, more than 650 small plastic pieces (16%), were recorded, followed by styrofoam pieces (12%), cigarette butts and filters (10%), String and cord (9%) and plastic caps/lids from drink (6%). Small plastic pieces and cigarette butts and filters were also among two of the most common litter items, since they were recorded in all beaches where the cleanups took place.

Directive, since February 2021. The directive contains measures on the management of cigarette butts and also particular standards for the design and manufacturing of plastic caps, whereas for the plastic straws, stirrers and plastic cotton bud sticks, their ban entered into force since summer. Nevertheless, items subjected to the Directive are still among the most abundant litter items along the Greek coast proving the long-lasting effects of their pollution.





Underwater cleanups

During March-June 2022-2023, 11 underwater cleanups (A16-26) took place in the context of the 16th - 17th wave of Prosero campaign. In particular, underwater cleanups took place Thessalia, Central Greece, North Euboea, Galaxidi, Spetses and Chalkidiki (Table 3).

Underwater cleanup details

16th Activity (A16): Agiokampos, Thessalia

17th Activity (A17): Stomio port, Thessalia

18th Activity (A18): Stylida port, Central Greece

19th Activity (A19): Raches port, Central Greece

20th Activity (A20): Loutra Edipsos port, Euboea

21th Activity (A21): Neos Pyrgos port, Euboea

22th Activity (A22): Oreoi port, Euboea

23th Activity (A23): Spetses, Attica

24th Activity (A24): Stavros, Chalkidiki

25th Activity (A25): Olympiada, Chalkidiki

26th Activity (A26): Galaxidi, Central Greece

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Table 3: Supplementary data of "Prosero 16-17 " underwater cleanups conducted during March-June 2023.

Activity code	Date	Volunteers	Divers	Litter collected (kg)
A16	18-03-2023	5	2	1.500
A17	21-03-2023	4	2	210
A18	21-04-2023	8	2	470
A19	22-04-2023	6	2	110
A20	26-04-2023	7	4	500
A21	27-04-2023	4	3	90
A22	27-04-2023	5	4	130
A23	20-05-2023	1	2	100
A24	07-06-2023	50	2	200
A25	07-06-2023	3	2	120
A26	29-05-2023	30	6	300
Total		123	31	3,730





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Figure 4: Some aspects of the underwater cleanups conducted in Thessalia and Edipso.

Underwater litter monitoring results

In the context of the actions and with the aim to survey the abundance of marine litter in each area, seafloor litter was monitored according to the monitoring framework and protocol established in the context of the Marine Strategy Framework Directive.

In total 3,730 kg of litter were removed from the seafloor of the 11 underwater cleanups and a total number of 3128 litter items were recorded, more than 53 % of which were made of plastic, in accordance with the global bibliography and data, followed by metal (26%).



Litter types

The average percentage of plastic found in the seafloor of 11 ports exceeded 50% of the total litter recorded, followed by metal, in accordance with the findings of underwater cleanups taking place throughout Greece. On the other hand, wood and paper are not abundant benthic litter types mainly because of the durability of these materials.

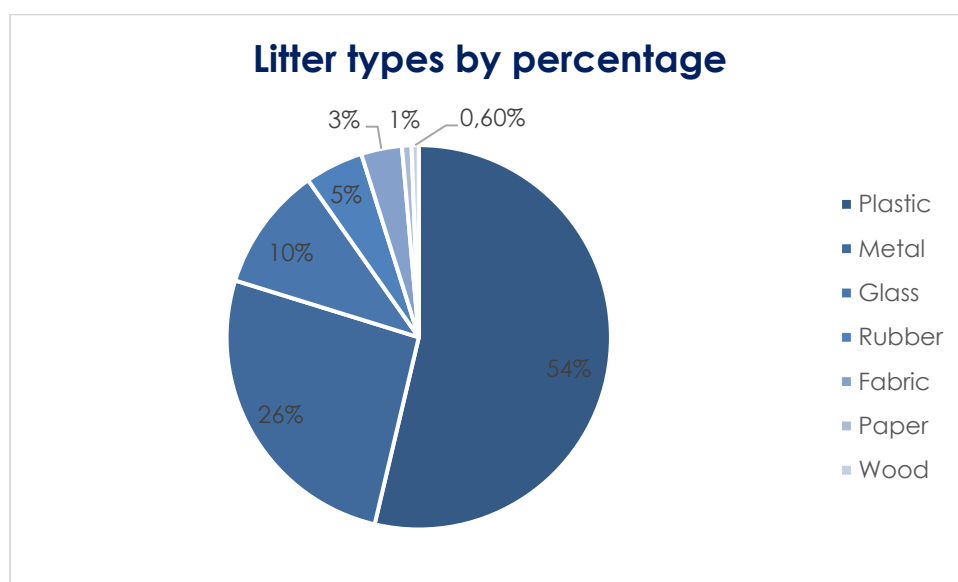
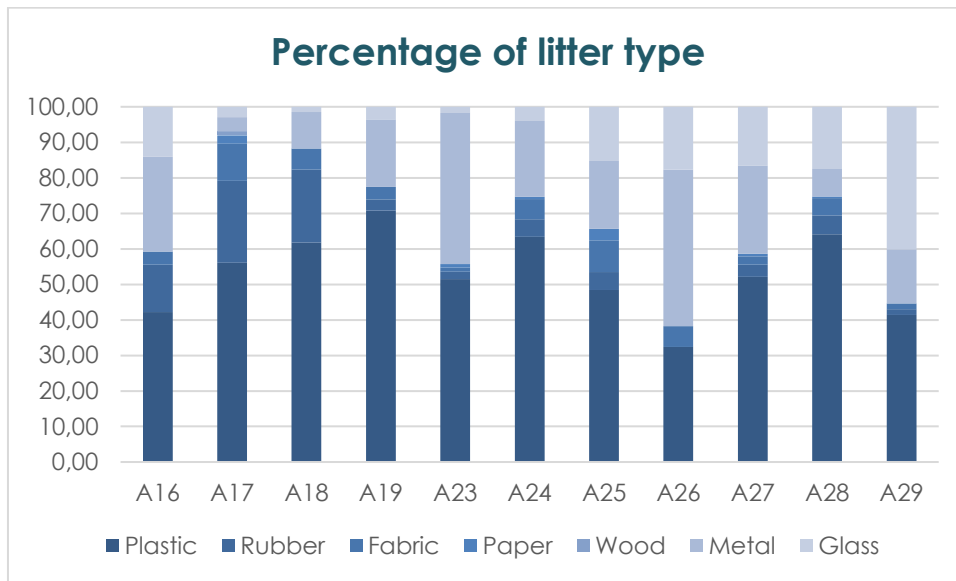


Figure 5: Litter type according to the data collected from 11 underwater cleanups expressed by percentage. (%).





Particularly, in Raches port (A19) 70% of the litter recorded were plastic while in Stavros port (A25), 64% were plastic, making these two ports exceeding the average percentage of plastic. Raches port (A19) is a recreational port with many small vessels and many touristic activities such as restaurants and coffee bars, located in the port of Raches.

Loutra Edipsos port (A20), shows a great amount of metal items, especially aluminum cans. The number of aluminum cans removed exceeded 430. Loutra Edipsos port (A20) is a port used by small scale fishermen, trawlers, and ferries too. It is a port with high touristic activity.

Spetses (A23) has an increased amount of metal (44%) with items such as aluminum cans, anchors, an oil tinplate and a chair removed from the bottom of the sea. The region that the cleanup was implemented was in the outside side of the port and that could explain the fact that not so many plastic items were collected.





Olympiada port (A25) presented high amount of plastic (64%) the plastic items found were mostly octopus traps, plastic fishing baits, synthetic ropes, fishing lines and cups. All the items mentioned above are usually found in small scale ports where there are recreational fishermen.

In Galaxidi port (A26), plastic was 41% of the total litter recorded, followed by glass (40%) possibly because of the festival that takes place in the area, that receive an increased number of visitors and distribute a great amount of glass items, like bottles.

Litter items

Table 4: Ten most abundant benthic litter items, expressed as a percentage %.

Items	Percentage%
Beverages and beer cans	19%
Plastic bottles (water, beverages)	7%
Single Use Plastic cups and lids	4%
Glasses/Ceramic utensils	4%
Glass bottles and pieces	4%
Fishing lures	3%
Vehicle tires	3%
Ropes and twines	3%
Food packaging	2%
Fishing lines	2%

In the context of 11 underwater cleanups, the total number of 601 beverages and beer cans (19%) was recorded, followed in number by 600 plastic bottles (7%), Single





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Use Plastic (SUP) cups and lids (4%), glasses/Ceramic utensils (4%), glass bottles and pieces (4%).

The highest number of beverages and beer cans and plastic bottles (water, beverages) were recorded in Edipsos Port (A23), 430 beverage and beer cans and 330 plastic bottles in particular, possibly because of the fishing activities taking place in the port.

Informative Events

In the context of "Prosfero" project two informative events took place in Thessaloniki in Thessalia, in North Euboea and in Central Greece attended by more than 450 people. The iSea representatives informed all the attendees about the aim and the actions of Prosfero and distributed informative material on marine pollution and measures for its prevention and mitigation. Adults and children who attended these events had the opportunity to learn about the 10 most common beach litter and to see items removed from the seabed during underwater cleanups as well. Also, in Thessaloniki a film aiming to raise public awareness on marine protection. These four events were implemented with the collaboration of the Municipality of Larisa, the Municipality of Lamia, the Municipality of Edipsos and Kyklos and the participation of our volunteers.



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Figure 6: Some aspects of the event conducted in Thessaloniki, Lamia and Edipsos.

Participation details

A total number of more than 743 people participated in "Prosero campaign. In particular, 620 volunteers contributed to the activities and the removal of litter from beaches and 123 volunteers contributed to the activities and the removal of marine litter from the ports. Volunteers included iSea members, as well as representatives of associations and entities actively working in each area. The entities were; Hellenic Red Cross, Scouts of Thessaloniki, Active Citizens of Kalamaria, Mikro Emvolo, Clean up Greece, Save your Hood, Mandoulides, Fishers' association of Agiokampos "Agios Nikolaos", 3rd Highschool of Larissa, HighSchool of Agia, the Cultural Association of





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Kokkino Nero, Spinalonga Tours, Dive in Action, Stylida Rescue Team, the 2nd Elementary School of Stylida, the Elementary School of Glyfa, the Secondary School of Raches, Wheeling2help, Argonauta Diving Resort, the Elementary School of Oreoi, the elementary School of Pefki-Istiaia, the Elementary School of Emporio, the Elementary School of Stavros, the Pre-High School of Galaxidi, Hellenic Rescue Team Natural Environment & Climate Change Agency, Individual volunteers also joined the cleanups. As far as it concerns the diver volunteers, two divers of iSea coordinated and conducted all the underwater cleanups. Apart from the volunteers, representatives from the local authorities took part in the actions (i.e. municipal authorities, port police) mainly as ambassadors of their affiliated entities. In particular, representatives from the local Municipalities (12), the Coast Guard (3) and the Port Authorities (1) contributed to the implementation of the cleanups. Namely, representatives of the Municipalities of Agios Nikolaos, Kalamaria, Thermaikos, Delta, Agias, Thiras-Santorinis, Lamia, Stylida, Istiaia-Edipsos, Mantoudi-Limni-Ag. Anna, Volvis, Delphi, Spetses and the Coast Guard of Agiokampos, Stylida and Stavros participated in the actions, along with the Port Authority of Agiokampos and Municipal Port Fund of Agios Nikolaos. Last but not least, members of the KRISSAOS scuba diving club participated in the underwater cleanup in Galaxidi, Delphi, as well as the local fisherman Vasilis Papadeas helped to implement the underwater cleanups.





Communication plan

iSea based on the findings of Prosero Campaign shared all the results via its social media and websites aiming not only to distribute the significant impact of the actions, but also to raise awareness about the issue of marine litter and its impact on marine ecosystems. To achieve this goal, a total number of 9 posts were published in Facebook, Instagram, Twitter and LinkedIn presenting the results of the actions in each area and reaching up to 8,333 people.

Facebook:

Date	Impressions	Reactions	Shares	Link
20-10-2022	1,013	199	12	Link 1
27-10-2022	2,843	52	4	Link 2
08-11-2022	2,827	93	8	Link 3
06-03-2023	3,802	148	18	Link 4
14-03-2023	2,313	96	4	Link 5
23-03-2023	1,935	67	3	Link 6
03-04-2023	1,621	77	2	Link 7
19-04-2023	8,333	359	17	Link 8
06-05-2023	4,135	151	5	Link 9

Instagram:

Date	Impressions	Reactions	Shares	Link
20-10-2022	1,150	80	-	Link 1



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27-10-2022	685	50	-	Link 2
08-11-2022	434	52	-	Link 3
06-03-2023	794	61	-	Link 4
14-03-2023	1,133	58	-	Link 5
23-03-2023	504	67	-	Link 6
03-04-2023	497	55	-	Link 7
19-04-2023	1,280	88	-	Link 8
06-05-2023	320	74	-	Link 9

Twitter:

Date	Impressions	Reactions	Shares	Link
20-10-2022	7	11	2	Link1
27-10-2022	3	8	2	Link 2
08-11-2022	3	9	1	Link 3
06-03-2023	1,027	17	7	Link 4
14-03-2023	490	4	4	Link 5
23-03-2023	410	6	1	Link 6
03-04-2023	934	17	4	Link 7
19-04-2023	708	9	3	Link 8
06-05-2023	423	6	1	Link 9



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LinkedIn:

Date	Impressions	Reactions	Clicks	Link
08-11-2022	567	24	51	Link 1
06-03-2023	432	13	51	Link 2
14-03-2023	293	15	13	Link 3
23-03-2023	314	12	7	Link 4
03-04-2023	236	9	7	Link 5
19-04-2023	141	7	3	Link 6

In addition, a total number of 31 "stories" were published via Social Media during the actions, to inform the public about the progress of each action and keep their interest in the project alive.



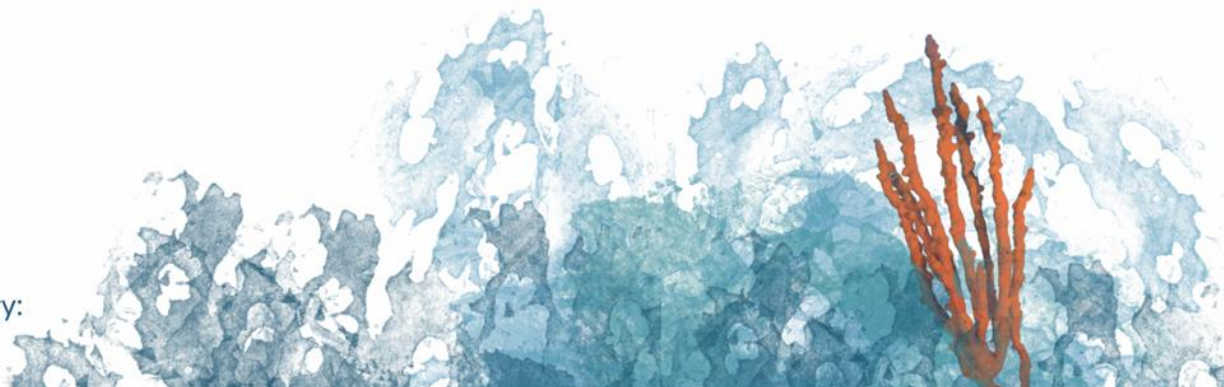


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A press release was created and shared with the local press inviting the local community to participate in the campaign.

Media	Link
cyclades24	Link1
Atlantea	Link2
Santorinipress	Link3
Aigaionews	Link4
Voria	Link5
Cityportal	Link6
Municipality of Kalamaria	Link7
Ertnews	Link8
ThesToday	Link9
Otavoice	Link10
Karfitsa.gr	Link11
ethermaikos	Link12
energyworld	Link13
ethermaikos	Link14





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youtube	Link15
makedonia	Link16
taxalia.blogspot.com	Link17
goThess	Link18
onLarissa	Link19
Fonografos	Link20
larissapress	Link 21
e-sterea	Link 22
StilidaNews	Link 23
StilidaNews	Link 24
EviaOnline	Link 25
Lamia report	Link 26

Furthermore, the following articles were published in the local press and post on social media with the aim at informing the community about the actions and achieve high participation.

Media	Link
Energymag	Link1
104FM	Link2
H foni tis Salaminas	Link3
Dramania	Link4
Lamia report	Link 5
Lamia report	Link 6



