

I INTERNATIONAL FORUM ON MARINE LITTER & CIRCULAR ECONOMY IN ISLAND ENVIRONMENTS

7-8th March 2023 - PUERTO LA CRUZ (TENERIFE - CANARY ISLANDS) - SPAIN



MARLICE ISLANDS[®]

I INTERNATIONAL FORUM ON MARINE LITTER AND
CIRCULAR ECONOMY ON ISLAND ENVIRONMENTS

7 - 8 March 2023
Puerto de la Cruz - TENERIFE (CANARY ISLANDS)



Gobierno
de Canarias



AEBAM
ASOCIACIÓN ESPAÑOLA
DE BASURAS MARINAS



MARLICE ISLANDS
INTERNATIONAL FORUM ON MARINE LITTER & CIRCULAR ECONOMY IN ISLANDS ENVIRONMENTS
7-8 March 2024 - Puerto La Cruz (Cantabria) - MARLICE ISLANDS - SPAIN
OPEN CEREMONY
10:00 AM - 11:00 AM
Mr. Juan de Dios Rodríguez
Mr. Rafael Rodríguez
Mr. Roberto Álvarez
ISLANDS: STANDARD BEARERS FOR CLEAN OCEANS

MARLICE ISLANDS
INTERNATIONAL FORUM ON MARINE LITTER & CIRCULAR ECONOMY IN ISLANDS ENVIRONMENTS
7-8 March 2024 - Puerto La Cruz (Cantabria) - MARLICE ISLANDS - SPAIN
ISLANDS: STANDARD BEARERS FOR CLEAN OCEANS
Sponsors: University of Cantabria, AIVAM, EUNICE, and others.

PROMEMAR
Asociación de Promotores de Islas Marítimas

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"Islands:
standard bearers for clean oceans"

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1. ATTENDANCE AND SPEAKERS



176 attendees



94 participating entities



Attendees from 13 countries

ARGENTINA
BRAZIL
CAPE VERDE
CROATIA
CURAZAO
SPAIN
FRANCE

IRELAND
NETHERLANDS
PORTUGAL
PUERTO RICO
TUNISIA
VENEZUELA



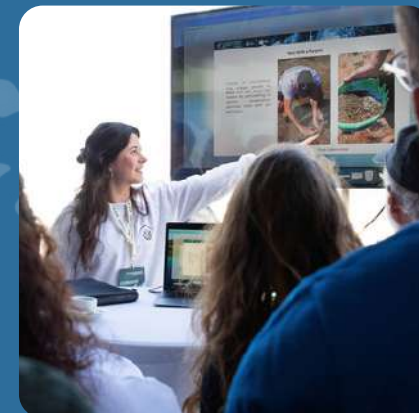
50 speakers



18 projects presented



5 activities at MARLICE4PEOPLE



2. SESSIONS

The Forum held sessions over two consecutive days in two parallel rooms, focusing on five major thematic blocks: Governance, Circular Economy, Monitoring and Citizen Science, Marine Protected Areas and Tourism.

The opening ceremony was attended by the Minister of Ecological Transition, Fight against Climate Change and Territorial Planning of the Government of the Canary Islands, José Antonio Valbuena; the Mayor of Puerto de la Cruz, Marco Antonio González; and the Secretary of the Spanish Marine Litter Association (AEBAM), Marcelo Javier López.

The inaugural speeches were given by Dr. Jerónimo López-Martínez from the Autonomous University of Madrid, "Messages from Antarctica", and by Lex Oosterbaan, member of the OSPAR marine litter coordination team, with "The origin of OSPAR monitoring and its impact on knowledge for the improvement for the fight against marine litter".

The second day began with the participation of Catherine Barrett, Fisheries Development Executive -BIM, and Izaskun López-Samaniego, Tech Manager at Globant and expert in data processing, as keynote speakers.



The closing ceremony of MARLICE ISLANDS 2023 was attended by José Domingo Fernández, Director General of the Directorate General for the Fight against Climate Change and Environment of the Government of the Canary Islands, David Hernández, Deputy Mayor of Puerto de la Cruz, Estíbaliz López-Samaniego and Patricio Peñalver Duque, representatives of the Spanish Marine Litter Association and members of the MARLICE ISLANDS 2023 coordinating team.

Two special awards were presented during the MARLICE Forum. On the one hand, first prize in the 1st Marine Litter Photography Competition "MARLICE" was awarded to Francisco Javier Murcia Requena for his photograph "No es comida!!!" ("That's not food!"). On the other hand, the "MARLICE" prize was

awarded to Silvia Revenga, Secretary General of the Sea, in recognition of her excellent work throughout a career dedicated to the protection of the marine environment.



Author: Francisco Javier Murcia Requena



Sessions

S1. GOVERNANCE

TT1 -CHALLENGES FOR THE IMPROVEMENT OF MARINE LITTER REMOVAL AND MANAGEMENT ON THE ISLANDS

S2. MONITORING

TT2 - COORDINATION OF BEACH MONITORING METHODOLOGIES THROUGH CITIZEN SCIENCE AT INTER-ISLAND LEVEL (THE EXAMPLE OF THE CANARY ISLANDS)

S3. KEY SPEAKERS

TT3. SOLUTIONS FOR THE PREVENTION OF MARINE LITTER

S4 -CIRCULAR ECONOMY STRATEGIES AS A SOLUTION FOR MARINE LITTER

TT4 - MARINE LITTER IN THE TOURISM SECTOR. TRANSFORMING THE PROBLEM INTO A SOLUTION

S5 -HOTSPOTS AND IMPACT ON THE ECOSYSTEM

TT5 -MARINE LITTER. COMMUNICATION AS A BANNER FOR THE SOLUTION OF A GLOBAL PROBLEM

And there's more...

PROJECT PRESENTATIONS

COFFEE WITH... (open dialogue with speakers)

MARLICE4PEOPLE (activities for the general public)



S1. GOVERNANCE

 AUDITORIUM - ANDROMEDA ROOM

 07/03/2023  12:00-13:45

Chairperson: Gustavo Pestana

DESCRIPTION

This session aimed to explore the complexity of the competency framework affecting the marine environment and especially island contexts. The need to implement both global and local strategies and to share existing experiences in this field to try and define the most successful ones that can then be applied in different locations.

CONTENT OF THE SPEECHES

"Outermost Regions: Small Laboratories for the European Union" - Carlos Díaz Rivero

The Outermost Regions of the European Union are 9 very diverse regions with similar problems, one of which is marine litter. The influence of the Atlantic sea currents and the trade winds in the Canary Islands pose problems for the administration in terms of waste management. The European Union recognises the importance of preserving the oceans and allocates a specific budget for the ORs within programmes such as ERDF 21-27, INTERREG MAC and LIFE+. The OCEANLIT project is presented as an example of an INTERREG MAC funded project focusing on the study and management of marine litter in the Macaronesia region.

"Multi-level governance against plastic pollution: the MedWaves experience" - Magali Outters

MedWaves works on governance issues, both on an international and local level, to reduce plastic pollution in the Mediterranean with a focus on prevention. It operates within the framework of two international treaties, the Barcelona Convention and the Stockholm Convention. The organisation promotes the circular economy and sustainable consumption to prevent marine litter. The current process to reach a UN agreement on plastic pollution is presented and the importance of establishing strategies and agreements at an international level to address this transboundary problem is highlighted.

CHAIRPERSON

Mr. Gustavo Pestana Pérez

 Gobierno de Canarias - Viceconsejería de Lucha contra el Cambio Climático

 Head of Climate Change and Environmental Information Service



SPEAKERS

Mr. Carlos Díaz Rivero

 Consejería Transición Ecológica y Lucha contra el Cambio Climático, Gobierno de Canarias

 European Funds Coordinator



Ms. Magali Outters

 MedWaves, the UNEP/MAP Regional Activity Centre for SCP

 Team Leader Policy Area



Ms. Hanna K. Rodríguez Morales

 IEMES, PSC

 CEO/President



Mr. Sylvain Petit

 Small Islands Organisation (SMILO)

 Executive Secretary



S1

MedWaves works with Mediterranean countries, particularly North Africa and the Middle East to implement measures related to sustainable production and extended producer responsibility. The CapiMed Islands project stands out as an example of a local governance effort to address plastic pollution. The organisation stresses the importance of jointly regulating the issue of marine litter in the Mediterranean within the same regulatory framework.

"Puerto Rico: An Educated Perspective on its Marine Litter Management Challenges and Concerns" - Hanna Rodriguez

As a US territory, all federal (US) legislation and regulations apply to the archipelago of Puerto Rico. As in any other jurisdiction, local government units (in our case the territory or municipalities) may require stricter standards. In the case of solid waste, Puerto Rico suffers from non-compliance problems as well as unmet targets. The issue of access to economic resources hinders any action to improve this area. Furthermore, if we take into account the impacts of climate change and the intensity of hurricanes, waste management worsens when these phenomena occur. As an island, marine debris should be a hot topic, but currently we are seeing an impact from the Federal Government's Marine Debris Act, which does not yet provide solutions but does provide opportunities for training, research and development. Apart from the US Government, professional or environmental associations have been the only ones to bring this issue to the community; no local legislation or regulation in Puerto Rico related to marine debris or microplastics has evolved in the local Congress or House of Representatives.

"A label for sustainable small islands" - Sylvain Petit

SMILO is an organisation that has built a network and developed a "label" to support sustainable development and resource management on small islands of less than 150 km² around the world. Its focus is on sustainable solutions in the fields of water and sanitation, waste, energy, biodiversity, landscape and heritage. SMILO works on governance to evaluate different private sectors and establish connections between islands in different geographical areas. To ensure good natural resource management, the organisation promotes long-term participatory governance and the development of concrete and innovative projects on the ground. It also seeks to improve local technical capacities and help share best practices and knowledge through its international network of small islands.



S1



CONCLUSIONS

The management of marine litter on islands is a complex problem that requires multi-level governance. The papers presented highlight the importance of implementing regulations and strategies at a global level and exporting local experiences, as well as establishing international agreements to address this transboundary issue. The importance of prevention and circular economy is highlighted, as well as the promotion of sustainable development and resource management on islands. In addition, the need for participatory and long-term management to ensure good natural resource management and to improve local technical capacity is highlighted. Finally, it is concluded that the management of marine litter on islands should be a priority for governments and international organisations, and that concrete and effective measures should be implemented to address this growing problem.

S2 - MONITORING

MACARONESIA ROOM

07/03/2023 12:00-13:45

Chairperson: Izaskun López-Samaniego

DESCRIPTION

The monitoring of marine litter is key to assessing the environmental status of marine ecosystems, understanding the sources and dispersal pathways of marine litter and assessing the effects on the marine environment and its species. Work has been carried out in recent years to unify methodologies and apply new technologies in the monitoring of marine litter and microplastics. In the island environment, monitoring work also takes on special importance due to the accumulation effect that ocean currents can cause on different islands and archipelagos.

CONTENT OF THE INTERVENTIONS

"IMPLAMAC Project: "Assessment of the impact of microplastics and emerging pollutants on the coasts of Macaronesia" - Javier Hernandez

The IMPLAMAC project is a cooperation and development initiative that focuses on the study of marine pollution in the Macaronesia region, which includes the Canary Islands, Madeira, the Azores and Cape Verde. The main objective of the project is to create an observatory that generates quantitative and qualitative data on the impact of microplastics and other pollutants on the coasts of these regions, while seeking to raise public awareness on the control of marine litter.

During the last three years, the project has been carried out by the University of La Laguna in Tenerife, in collaboration with other institutions and entities. Studies have been carried out to analyse the distribution and accumulation of microplastics. In addition, the effect of microplastics on food chains and marine ecosystems has been investigated, finding the presence of microplastics in the stomachs of 53% of the fish studied. The presence of pollutants absorbed by microplastics, such as carbamazepine, octocrylene and norgestrel, has also been determined.

The project has also carried out studies on the trajectories of microplastics in the Macaronesia region, in collaboration with the University of Las Palmas de Gran Canaria and the

CHAIRPERSON

Ms. Izaskun López-Samaniego

Globant / Vertidos Cero
Data Strategy & Product Lead



SPEAKERS

PhD. Javier Hernández-Borges

University of La Laguna
Full professor



PhD. Sonia KM Gueroun

The Marine and Environmental Sciences Centre (MARE)
Associate researcher



Ms. Nicola Pestana

Direção de Serviços de Ação Climática e Sustentabilidade - Gob. Madeira
Senior Technician



Ms. Carolyn Caporusso

Clean Coast Bonaire (WWF-NL)
Coordinator



S2

Spanish Institute of Oceanography. Through these studies, the aim is to understand and correlate the data collected in order to identify hotspots of microplastic accumulation in the islands.

"Between land and sea: microplastics in the oceanic islands of Madeira" - Sonia KM Gueroun

Microplastics monitoring programmes on beaches and in coastal waters of Madeira Island were presented. Two monitoring programmes were mentioned: one focused on beaches, looking for particles up to one millimetre in size, and one focused on water, tracking microplastic particles of up to 200 micrometres at a depth of up to 300 metres. No major hotspot of microplastic contamination was found on Madeira's beaches, but a higher concentration of fragments was observed in Porto Santo compared to Madeira, possibly due to the cleaning processes on those beaches. In terms of water, a greater presence of particles was identified in autumn compared to summer. It was highlighted that areas further offshore and deeper waters are also affected by microplastics, underlining the importance of considering the impact on the entire marine ecosystem, including the deep ocean. The predominant composition of microplastics was found to be fibres, probably from clothing. No clear pattern was observed in terms of the distribution of fibres or fragments according to geographical location. It was mentioned that future focus will be on identifying the origin of microplastics and their interaction with marine fauna, particularly in the deep ocean, to better understand the implications for marine organisms.

"Beach litter monitoring programme in Madeira" - Nicola Pestana

The Madeira beach litter monitoring programme is part of the so-called MaRaM Strategy launched by the regional government in 2020.

The programme is based on three main axes: awareness-raising activities, scientific monitoring and clean-up of beaches and remote accumulation sites. Awareness-raising activities are carried out in collaboration with volunteers, municipalities, schools and yacht clubs, with the aim of raising awareness about marine pollution. Three campaigns a year are carried out and focus on cleaning beaches, recording and classifying the rubbish found. Scientific monitoring follows the guidelines of the OSPAR Commission.

The monitoring programme in Madeira focuses on raising awareness, scientific monitoring and clean-up of beaches and remote accumulation sites. With a holistic approach, it aims to address the problem of microplastics and marine litter in the region, and plans to further expand and improve activities in the future.

"OSPAR monitoring in the Dutch Caribbean: a roadmap for regional harmonisation" - Carolyn Caporusso

In her speech, the coordinator of Clean Coast Bonaire, spoke about the use of OSPAR monitoring in the Dutch Caribbean as a roadmap for regional harmonisation in the fight against marine litter. She started by highlighting the importance of tackling this problem on islands, where marine litter is most visible and blue



SPEAKERS

Ms. Carlota Vialcho Miranda

Ocean Missions

Coordinator of the Icelandic Beach Cleanup Network in the NE



PhD. João Gama Monteiro

Universidade da Madeira/MARE-Madeira /ARDITI

Associate Researcher



S2

economies are vulnerable. To work on solutions, it is crucial to collect data along with the litter, but there is currently a lack of quality data in the Caribbean region. According to a World Bank report, litter concentration is known to be high, but there is a need to improve monitoring approaches and to have common and harmonised systems across the region. There has been progress in cooperation between the Cartagena Convention and the OSPAR Convention, and a memorandum of understanding has been established to combat marine litter. OSPAR monitoring started on Bonaire in 2018. The data collected is used to raise awareness, collaborate with local organisations, conduct tourism studies and lobby the Dutch government to ratify the land-based sources protocol and improve waste management on the island.

"Combining citizen science and research on micro- and macroplastics in Iceland" – Carlota Vialcho

Ocean Mission is an NGO based in Húsavík, Iceland, that combines citizen science with micro- and macroplastics research. Since its inception in 2019, it has focused on ocean conservation and has established collaborations with whale-watching companies, such as North Sailing. Their main goal is to inspire people to take action and protect the ocean.

They carry out joint projects, such as the "Whale Sales and Science" excursion, where they take microplastic samples from whale-watching boats using the Manta Trawl. They also organise scientific expeditions with volunteers to collect data on macro- and microplastics. This data is of great importance, as less than one percent of the ocean in Iceland is currently protected.

"Technological solutions to improve macro-monitoring of waste"- Joao Monteiro

The presentation raised the importance of improving monitoring through the application of innovative technology. He highlighted the need to diagnose the problem in order to determine the quantity and origin of marine litter. Joao and his team have developed a mobile application that allows users to easily report and classify marine litter.

To complement traditional monitoring, they have used drones to map coastal and marine areas. While drones do not completely replace conventional methods, they can extend the scope of sampling and provide additional information. They have explored the use of machine learning to detect litter in images, achieving successful models for automatic identification of marine litter.



S2

In addition, they have integrated multispectral data, to improve the detection of marine debris.

To investigate deeper and more fragile areas without causing damage, they have used remotely operated vehicles (ROVs) and submarines equipped with high-resolution cameras. These devices allow detailed analysis of marine litter, even in places where manual collection is not allowed.

Joao emphasised the importance of collaboration and everyone's commitment to tackle this global problem.



CONCLUSIONS

Monitoring actions are key in the follow-up of marine litter to support decision making and to work towards reducing its impact. In this sense, monitoring design and protocols are the basis for collecting quality quantitative and qualitative information.

It is important to keep in mind that these processes are dynamic and must be adaptable to different situations, whether due to variations in the environment or cultural, geographical or economic causes.

In addition to this, innovation and technology play a key role in the evolution and improvement of the quality of monitoring as they become resources that reduce physical and economic effort by extending the radius of action of these activities.

Finally, it should not be forgotten that involving citizens in these actions is a way to raise awareness of the problem and also to enrich the information available.

S4 -CIRCULAR ECONOMY STRATEGIES AS A SOLUTION FOR MARINE LITTER

 AUDITORIUM - ANDROMEDA ROOM

 08/03/2023  11:30-13:30

Chairperson: Vicente Galván López

DESCRIPTION

Marine litter comprises a wide range of materials, many of which have characteristics that can be recycled or even reused. This session will present some actions that have succeeded in giving value to marine litter beyond its deposit in landfills and initiate an exchange of knowledge that encourages the market to integrate this waste as a material for the creation of new products that minimise the exploitation of raw materials.

CONTENT OF THE SPEECHES

"Canary Islands Blue Economy Strategy" - Gonzalo Piernaueja

Presents the ITC as a multidisciplinary technology centre focused on sustainable development. He highlights that regional blue and circular economy strategies are being implemented in the Canary Islands, with a focus on tackling marine litter. He mentioned several ongoing actions, such as the Oceanlit project and the Marine Strategy for the Canary Islands demarcation. The importance of governance and collaboration between public and private actors is highlighted. The ITC focuses on coastal water quality and land-sea discharges, and ongoing projects are mentioned, such as the Abaco project. In summary, the Canary Islands government's promotion of the blue economy in a sustainable way and the promotion of collaboration to address the issue of marine litter are emphasised.

The role of Extended Producer Responsibility in the prevention of marine litter" - Roberto Ruiz Robles

The speaker represents the collective system of extended product responsibility (scrap) and stresses the importance of reducing the impact of packaging. He mentions the "Libera Project" to combat littering and highlights citizen participation. Other relevant projects mentioned include "Circular Lab" a platform that helps companies to address issues related to reducing the impact of packaging, "Less Pack", which promotes practical solutions for reusing and reducing packaging in collaboration with other organisations. Reference is also made to "Naturaliza", an environmental education project aimed at teachers, focusing on issues such as the circular economy, climate change and biodiversity. It also mentions "Pack-CD", an innovative tool that helps companies to predict and modify the environmental impact of their packaging before manufacturing it.

CHAIRPERSON

Mr. Vicente Galván López

 Freelance Consultant

 Freelance Consultant



SPEAKERS

Mr. Gonzalo Piernaueja

 Instituto Tecnológico de Canarias (ITC)

 R&D&I Director



Mr. Roberto Ruiz Robles

 Ecoembes

 Institutional Relations



Mr. Íñigo José Núñez Quintana

 Ewaste / Fundación Canarias Recicla

 CEO



S4

The complexity of adapting to regulatory changes at a European and national level is mentioned, with the approval of new directives and laws related to waste, circular economy and climate change. The speech concludes by emphasising the need to continue moving towards sustainability and implementation of the approved regulations. It highlights the importance of a shared interpretation of the regulation between public administrations and other stakeholders in order to achieve the ambitious targets set in terms of reducing the environmental impact of packaging.

"Challenges for implementing Circular Economy initiatives in island territories" - Íñigo Núñez Quintana

Stresses the importance of the circular economy. Eco-design in products and services is mentioned, focusing on the importance of reducing the environmental impact in the Canary Islands, being importers. The need to penalise products that are difficult to recycle and to promote labelling to limit their entry is mentioned. The challenge of island transport and the existence of orphan products without a system of extended producer responsibility are mentioned. The importance of green purchasing by companies and public administrations is highlighted.

"Possibilities for recycling marine waste" - Estibaliz López-Samaniego

The "Circular Seas" project, an initiative supported by Coca-Cola Europacific Partners in collaboration with environmental organisations, is presented through Fishing for Litter actions. For five years, the project has tackled the problem of marine litter, especially in fisheries, by promoting the collection of waste and its proper management on land. In addition, the importance of waste characterisation and the implementation of chemical and mechanical recycling projects is highlighted.



EXPERTOS

PhD. Estibaliz López-Samaniego

Asociación Vertidos Cero

Project Management



Ms. Andrea Ruza

Fundación ECOALF

Directora



S4

"From the bottom of the sea to your wardrobe: the case of the ECOALF Foundation" - Andrea Ruzo

Thanks to the Upcycling the Oceans project, the ECOALF Foundation has removed more than 1,300 tonnes of rubbish from the Mediterranean and Atlantic since 2015. Motivated by the experience of ECOALF, a leader in sustainable fashion, we have been able to demonstrate that rubbish has a value and that it can be used by industries not only in the textile sector. The use of marine litter as a raw material is a possible palliative solution to the problem of ocean pollution, but the generation of business models and products that avoid pollution in the first place is the first step. In this intervention we would like to present the experience of ECOALF and other companies collaborating in the project in giving a second life to this waste, and also make a brief note on the impact of hygiene products on rivers and oceans, based on the experience of the CLEAN RIVES SAVE OCEANS project.



CONCLUSIONS

The effective implementation of the circular economy requires the development and execution of measures to close the current linear model of use and throw away, reincorporating materials into production cycles. This MARLICE session served to demonstrate, with practical cases and projects under development, that it is possible to move from theory to practice. The tools created by the circular economy are used to do so, with the aim of preventing the generation of marine litter or recovering the materials that are part of it.

S5 - HOTSPOTS AND IMPACT ON ECOSYSTEMS

📍 MACARONESIA ROOM

📅 08/03/2023 ⌚ 11:30-13:30

Chairperson: Izaskun López-Samaniego

DESCRIPTION

Marine litter hotspots are areas of increased convergence or specifically vulnerable areas where litter is present. This accumulation effect can be increased by the effect of ocean currents in island environments, either floating or on the bottom, resulting in different impacts on marine ecosystems and species, with a special focus on areas of high biodiversity, such as marine protected areas.

CONTENT OF THE SPEECHES

"Marine litter in the Canary Islands' Marine Reserves" - Isabel Tamia Brito

Isabel Brito highlighted that Spain has a total of 26 Marine Reserves, 3 of which are located in the Canary Islands, having been created over 20 years ago with the aim of recovering living marine spaces and maintaining traditional fishing methods. She proceeded to summarise the principal tasks and lines of work carried out in these protected spaces:

- Daily collection of marine litter using dedicated boats.
- Study of the impact of this waste on marine ecosystems with the idea that action can be taken in these areas, many of which are isolated. Inventory of impact in zones where marine litter is found: georeferencing, type of waste and proximity to the coast, impact of arrival at sea.

- Assistance for protected marine species such as turtles, cetaceans and seabirds.
- Encouraging public participation in the recovery of marine litter, so that they are aware of the problem in their area.
- Outreach and education for school children, especially on where marine reserves are located.

"Impact of marine litter on sea turtles in the Canary Islands" - Patricia Ostiategui

The representative of ADS Biodiversidad began her speech by pointing out that the Canary Islands are in the middle of the migration route of three turtle populations (Florida, Mexico and Cape Verde). From 1987 to 2019 there was an average of 200 stranded sea turtles, more than 4,000 in the last 30 years, being one of the places in Europe where most turtles are stranded alive.

CHAIRPERSON

Ms. Izaskun López-Samaniego

🏢 Globant / Vertidos Cero
📄 Data Strategy & Product Lead



SPEAKERS

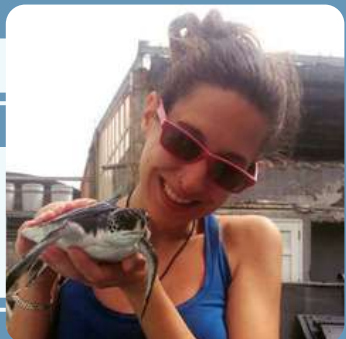
Ms. Isabel Tamia Brito Izquierdo

🏢 Reservas Marinas Canarias-Tragsatec
📄 Head of Marine Reserves Service in the Canary Islands-Tragsatec



Ms. Patricia Ostiategui

🏢 ADS Biodiversidad
📄 Research technician



Ms. Yasmina Rodríguez

🏢 Institute of Marine Sciences - Okeanos, University of the Azores (Horta, Portugal)
📄 Ph.D. student in Marine Ecology at the University of the Azores



S5

In relation to marine litter, there are two main impacts, although they are not the only ones:

- Entanglement.
- Ingestion.

"Cory's shearwater as a key species for monitoring oceanic plastics in marine litter hotspots in the NE Atlantic" - Yasmina Rodríguez

Yasmina Rodríguez, from the University of the Azores, points out that the use of bioindicator species for marine litter pollution has been suggested, one of the most appropriate group being seabirds and, in this case, due to its distribution, the Cory's Shearwater species for the Azores, Canary Islands, Portugal and Galicia.

"INTEMARES. Lost gear. Tools to support the management of lost or abandoned fishing gear (APPA) in Spanish marine demarcations. The case of island areas" - David León

David León spoke to us about the tools generated within the INTEMARES Lost Gear action, the objectives of which are to raise awareness of the problem, minimise and mitigate the impacts generated by these elements, catalogue, inventory and georeference in the different demarcations with their different characteristics of fishing gear and typologies of these elements, define the negative effects on the different habitats and species, and promote participation and shared management of this problem.

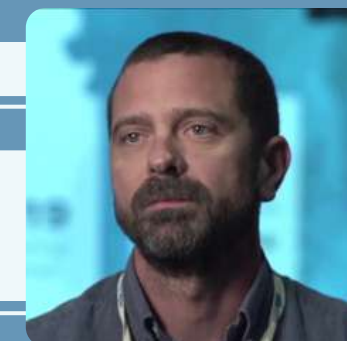
"Where is the marine litter hiding? An analysis of the ecosystems of the Seaflower Biosphere Reserve (Colombian Caribbean)" - Luana Portz

Luana Portz presented some results of expeditions carried out in the Colombian Caribbean, in the SeaFlowers Biosphere Reserve, specifically on annual investigations of marine litter.

SPEAKERS

Mr. David León Muez

HyT Asociación
Project management



Ms. Luana Portz

Universidad Autonoma de Madrid
Researcher/Professor



S5

CONCLUSIONS

Hotspot research provides valuable insights not only to researchers but also to administrations and companies. Understanding the impact of marine litter on these ecosystems through the species that make them up, the behaviour of the currents and the variability of the waste helps us to understand that we are talking about a global problem. We need to be aware as citizens, researchers and administrations that this information is highly correlated and that our actions have a direct impact on the marine ecosystem and therefore on our lives and our economy.

The seasonality of Hotspots is due to several factors:

- Ocean currents.
- Atmospheric conditions.
- Orientation of the beaches.
- Coastal uses of beaches: greater impact in summer than winter (tourism and fishing).

With regard to solutions, the data allow us to know the origin and even to include new materials in the Directives that had not been considered, as well as to emphasise that there is no better solution than prevention.



TT1 –CHALLENGES FOR THE IMPROVEMENT OF MARINE LITTER REMOVAL AND MANAGEMENT ON THE ISLANDS

 AUDITORIUM - ANDROMEDA ROOM

 07/03/2023  16:00-17:00

Chairperson: Estibaliz López-Samaniego

DESCRIPTION

It is common to talk about the removal of marine litter, but it is not so common to focus on the need for its proper management once on land. This session were exchanged existing experiences in the field of marine litter management, especially those derived from fishing for litter actions, defining the critical points to be taken into account for its proper management and prioritise the most appropriate actions.

CONTENT OF THE SPEECHES

Pedro Delgado

He stressed the importance of proper waste management in the fisheries sector and highlighted the achievements made through the "OceanLit" project in terms of collection and raising awareness.

He emphasised the importance of raising the awareness of those in charge of fishing vessels about handing over all waste after their activities.

Almudena Hernández Cabrera

The intervention focused on the challenges and actions undertaken by the Port Authority of Santa Cruz de Tenerife in the management of waste and marine litter, highlighting the need for awareness, training and collaboration with other actors in the sector.

In her speech, the representative of the Port Authority of Santa Cruz de Tenerife addressed the problems of waste and marine litter management in the ports of the Canary Islands. She highlighted the complexity of management in island territories, with additional costs due to insularity and the scarcity of managers and human resources.

Rubén Rodríguez Alonso

The Spanish marine litter fishing strategy, was presented, highlighting the numerous projects developed in recent years in different ports along the coast. He mentioned the Intemares "Clean Fishing Grounds" project, promoted by the Ministry of Ecological Transition and the Demographic Challenge, with the aim of establishing a common framework for marine litter fishing activities.

CHAIRPERSON



PhD. Estibaliz López-Samaniego

 Asociación Vertidos Cero
 Project Management





SPEAKERS

Mr. Pedro Delgado

 DIREÇÃO REGIONAL DE PESCAS -
GOB. MADEIRA
 Diretor de Serviços de Lotas e
Entrepósitos



Ms. Almudena Hernández Cabrera

 Santa Cruz de Tenerife Port
Authority/Autoridad Portuaria de
Santa Cruz de Tenerife
 Environmental Officer



Mr. Rubén Rodríguez Alonso

 Asociación Vertidos Cero
 Project coordinator in Galicia



Ms. Andrea Ruzo

 Fundación ECOALF
 Directora



All of this framed in a change of scenario due to the new legislation on waste reception facilities in ports, which obliges port administrations to manage and report data on marine litter discharged in their ports.

Andrea Ruzo

Andrea Ruzo, representative of the Ecoalf Foundation, mentioned that the organisation has been working since 2015 to combat ocean pollution and promote the circular economy as a solution to tackle marine litter. Initially focused on Spain, they have expanded their activities to 71 ports in Spain, France, Italy, Greece and Thailand.

These examples show different approaches used by the Ecoalf Foundation to address the challenges of marine pollution, providing valuable insights and lessons for future action in the field.



CONCLUSIONS

In the area of awareness raising, the importance of starting and persisting in creating a culture of waste management is highlighted. Although the initial quantities may be small, it is essential to initiate actions and generate volume in order to boost activity and seek appropriate solutions. Furthermore, the importance of showing citizens the reality of waste and the consequences of improper waste management is mentioned, even if this means displaying containers or situations that may be unsightly.

In summary, the management of waste generated by fishing vessels is a challenge that requires awareness raising and concrete actions. Both port authorities and fishermen are committed to tackling this problem and training measures, incentives and recycling points are being implemented to encourage proper management of marine litter.

TT2 - HARMONISATION OF BEACH MONITORING METHODOLOGIES THROUGH CITIZEN SCIENCE AT AN INTER-ISLAND LEVEL (THE EXAMPLE OF THE CANARY ISLANDS)

 MACARONESIA ROOM

 07/03/2023  16:00-17:00

Chairperson: Patricia Ostiategi

DESCRIPTION

The monitoring of marine litter on beaches, whether at the level of studies or projects or at the level of citizen science, requires the application of standardised protocols. Over the years, these protocols have evolved in order to better harmonise data and subsequent analysis across different protocols. However, there are differences in terms of the different protocols applicable, as well as differences in criteria among the experts themselves. This participatory workshop is organised to generate debate and bring positions and criteria for the characterisation of marine litter on beaches closer together.

CONTENT OF THE INTERVENTIONS

"Marnoba, link with MITERD and its application at a national and international level". - Beatriz López



In her speech, Beatriz highlighted that MARNOPA is an app, a platform and protocol created in 2013 by the Asociación Vertidos Cero as a citizen science tool. It is a field notebook for all those who want to carry out characterisations in their beach cleaning. It's in line with the BM-7 Programme, additional data for the monitoring of marine litter on the beach (MITERD).

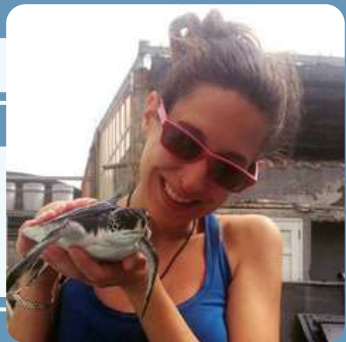
"Follow-up coordination on Fuerteventura with the different organisations. The power of cooperation!" - Bárbara Abaroa Pérez

Bárbara Abaroa wanted to emphasise that a lot of rubbish arrives in the Canary Islands due to the location of the islands and the effect of ocean currents. Therefore, the objective is to generate scientific knowledge that serves as a solid basis for improving governance, being very faithful to the fact that nothing can be changed without scientific data. Thanks to the homogenised collection and monitoring methodology, we know the main types of waste that appear and the sources, in order to apply prevention policies.

CHAIRPERSON

Ms. Patricia Ostiategi

 ADS Biodiversidad
 Research technician



SPEAKERS

Ms. Beatriz López Romero

 Asociación Vertidos Cero
 Project technician



Ms. Bárbara Abaroa Pérez

 Observatorio de Basura Marina
 Project Management



TT2

"Tools to help implement MARNOPA in the Canary Islands" - Ms. Patricia Ostiategui

The representative of ADS Biodiversidad indicated that data on marine litter come mainly from three sources: government policies or monitoring programmes, the scientific community and citizen science. These sources collect data in different ways and often have little connection with each other. Improving the connection between these sources would have positive consequences for decision-making and monitoring of marine litter. The challenge is to reach a consensus to bring all existing databases together and use the same methodology, which would allow data to be compared and used effectively. The collection of marine litter varies according to the geographical area, such as northern Spain, the Mediterranean or the Canary Islands. For example, 85% of the objects collected in clean-ups in the Canary Islands fall into only 18 categories.



CONCLUSIONS

There is a large number of organisations conducting beach cleanups, all with different objectives. By providing the right tools, as well as support during the process we can get information gathered by the incredible work of all of them can be compiled in a homogenous way so that it can be useful in developing solutions to combat marine litter.

Expert support and standardisation of data is key. For this reason, it is essential that communication between the different actors involved (official bodies, citizen science and the scientific community) is as fluid and bidirectional as possible.



TT3 – SOLUTIONS FOR THE PREVENTION OF MARINE LITTER

 AUDITORIUM - ANDROMEDA ROOM

 08/03/2023  15:30-16:15

Chairperson: Ignasi Mateo

DESCRIPTION

The massive generation of waste on land is the origin of most marine litter, which arrives there through different ways. How to prevent this generation? This is the topic for debate in this session

CONTENT OF THE SPEECHES

"The BeMed-Islands community: what we have learned in the Mediterranean islands" - Pedro Fernández Bautista

Pedro Fernández presented the CapiMed-Islands project whose objective was to capitalise on a series of initiatives, financed by the Beyond Plastic Med (BeMed) association, to fight against marine litter in small Mediterranean islands, working with the private sector, local authorities and citizens' associations. These initiatives included the reduction of single-use plastics on cruise ships, the development of local alternatives to single-use plastics and the management of plastic waste in North Africa.

The capitalisation project promoted collaboration between these initiatives, creating the Be Med Island community, with the aim of facilitating a common approach to tackling plastic

pollution, transferring the results and knowledge generated by the BeMed projects to other islands, enabling cross-border cooperation and proposing policies at a regional level.

Pedro highlighted the difficulty of implementing the EU directive on single-use plastics and stressed the importance of finding viable alternatives. He also mentioned the work done on Extended Producer Responsibility (EPR) in North Africa, where the private sector has taken on an important role in the absence of governmental progress.

"Capitalising on good coastal practices and improving marine litter prevention policies" - Candy Cecilia Ruano

In her speech, Candy Cecilia highlighted the importance of the participatory and multi-agent approach of the Interreg Europe project "CAPonLITTER", with partners from seven countries (Portugal, Spain, France, Croatia, Greece, Bulgaria

CHAIRPERSON

Mr. Ignasi Mateo Rodríguez

 Catalan Waste Agency
 Project Manager Circular Economy Area





SPEAKERS

Mr. Pedro Fernández Bautista

 MedWaves, the UNEP/MAP Regional Activity Centre for SCP
 Project Manager





Ms. Candy Cecilia Ruano

 Instituto Universitario ECOAQUA Universidad de Las Palmas de Gran Canaria
 Researcher



Ms. Raquel Malo

 ASINCA
 First Vice President



Mr. David González Montañez

 Ewaste Canarias S.L.
 Managing Director



TT3

and Germany) seeking to identify policies and transfer good practices to prevent marine litter generated by tourism and recreational activities.

Overall, the "CAPonLITTER" project represents an opportunity for participatory learning and implementation of concrete actions to address the problem of plastic waste and marine litter in coastal communities, tourist beach facilities and recreational events.

Raquel Malo

Raquel Malo, the representative of the Association of Industrialists of the Canary Islands, stressed the importance of prevention as a measure to protect the environment. She stressed that, from an industry perspective, good practices are implemented to prevent waste from reaching the sea and becoming a problem. Although legislation and regulations are in place, the desired goals in terms of reducing plastic waste are not yet achieved. He emphasised the need to consider waste as a resource and to promote reuse rather than disposal. He also underlined the environmental commitment of the industry in the Canary Islands, a region that depends on tourism and needs to protect its seas and the environment in general.

He also highlighted the importance of innovation and the study of products and their waste in order to minimise their impact and mentioned the collaboration with organisations such as Ecoembes for the implementation of recycling systems. In short, he stressed the need to prevent the generation of waste and ensure that it does not reach the sea, working together with industry, regulatory bodies and other relevant entities.

"Challenges of waste management in the Canary Islands". - David González

David González, from the Association of Waste Managers of the Canary Islands (AGERCAN), emphasised the need to perceive waste as a resource through training, technology and the promotion of projects. Two key gaps were mentioned for this vision of waste as a resource: the technological gap and the economic gap. The former refers to the lack of technologies to give a second life to by-products, while the latter relates to the high costs of implementing viable solutions.

AGERCAN seeks to reduce these gaps through investment in technology and economic support to investors to use by-products as inputs in other processes. In addition, the importance of building relationships with public administrations and extended producer responsibility schemes was highlighted. Compliance with the sector's regulations, the defence of the interests of members and the promotion of the circular economy in the Canary Islands are also fundamental objectives of the association.



TT3



CONCLUSIONS

Participatory processes and the inclusion of all actors involved in prevention are a key aspect for the success of marine litter prevention measures.

Success stories can be replicated on other islands and should serve as a driver for change at local and other levels (regional or national through prevention policies).

Waste is a necessary resource for the waste management industry and entrepreneurs are already incorporating prevention into their business policies to achieve industrial processes aligned with the circular economy and avoid marine litter.

Go into detail on how to prevent the generation of marine litter. The best waste is the waste that is not generated.

Capitalisation: creation of communities to get to know each other and exchange experiences, synergies, transfer what works to other areas and have an impact on policies.



TT4 - MARINE LITTER IN THE TOURISM SECTOR. TRANSFORMING THE PROBLEM INTO A SOLUTION



AUDITORIUM - ANDROMEDA ROOM



08/03/2023



16:30-17:30

Chairperson: Ignasi Mateo

DESCRIPTION

The tourism sector is one of the main economic drivers in most of the islands and in general has a strong presence in the mainland coastal areas. In some areas, waste associated with tourism activity can be a major source of marine litter. However, the role of tourism companies can be fundamental in raising awareness by generating sustainable models that improve waste generation and management. Have we reached this point? In this session we will have the opportunity to debate with different actors in the tourism sector to address the current situation.

CONTENT OF THE SPEECHES

Angelica Guillen Montilla

Angelica Guillen, representative of the Iberostar group, focused her speech on the circular economy and sustainable tourism strategy of the tourism sector in the Canary Islands. Iberostar is developing a sustainable tourism strategy, focused on the protection of the oceans, which is based on three main lines: circular economy, responsible fish consumption and coastal health, and with the aim of meeting the deadlines established in the 2030 agenda. Angélica mentioned that each destination in the Canary Islands presents specific challenges. He stressed the importance of tackling the problem of marine litter from prevention at the root of the problem and the need to work together as a sustainable tourist destination. In addition,

the need to work together as a sustainable tourist destination. In addition, he commented on the need to improve infrastructure to properly manage waste and prevent it from reaching the ocean.

Juan Carlos de León

Juan Carlos de León, representative of the Canary Islands business group GF Hotels (Fedola group), stressed that his group, made up of five hotels in the Canary Islands, seeks through sustainable tourism to transform this economic sector, which represents a significant percentage of the gross domestic product of the Canary Islands.

He mentioned that the hotel group has made improvements to the hotels' facilities, obtained certifications and was now

CHAIRPERSON

Mr. Ignasi Mateo Rodríguez

Catalan Waste Agency

Project Manager Circular Economy Area



SPEAKERS

Ms. Angelica Guillen Montilla

Grupo Iberostar

Sustainability Manager Canary Islands and Cape Verde



Mr. Juan Carlos de León León

GF Hoteles

Director of Operations at GF Hotels



Mr. Juan Ignacio Liaño Nuñez

Fred. Olsen Express

Fleet Director



Ms. Anna Valls

Fundación Save The Med

Project technician



TT4

He concluded by mentioning that hotels have the capacity to lead change and that even small hotel chains could make a difference in the market.

Anna Valls

Anna Valls, representative of the Save the Med Foundation, presented its "Plastic Free Balears" certification programme focused on reducing single-use plastic pollution in the tourism sector of the Balearic Islands. The programme seeks to replace plastics with environmentally friendly alternatives and certifies companies that adopt these practices.



Anna also mentioned the existence of "false alternatives" to single-use plastics, which claim to be environmentally friendly and mislead consumers, but are no better than the products they replace. The foundation published a guide to honest alternatives to single-use plastics in the Horeca Sector that aims to raise awareness of the impact of plastics, help in the transition to a circular economy and zero waste model, and provide guidelines to differentiate between honest and fake alternatives. The ultimate mission is to position the Horeca sector as a leader in the protection and regeneration of the marine environment of the Balearic Islands.

Juan Ignacio Liaño

Juan Liaño, representative of the Fred Olsen Express shipping company, highlighted the efforts made by private shipping companies in favour of the environment. This shipping company has been connecting the Canary Islands efficiently for almost 50 years. Its main objective is to minimise the impact on the marine environment, avoiding dumping rubbish in the sea and controlling the waste generated on the ships.

The company strives to raise awareness and convince users of the importance of not throwing rubbish into the sea and to protect the environment, taking advantage of the communication channel they have on board the ships. It also carries out outreach, awareness-raising and training among its staff and passengers to encourage more sustainable practices, and has implemented measures such as creating smoke-free areas to prevent cigarette butts from ending up in the sea.

Juan Ignacio highlighted the company's efforts to avoid affecting cetaceans and other marine species and recognised the importance of the collaboration, dissemination and training that still needs to be done to minimise the impact on the marine environment and avoid dumping rubbish in the sea.

TT4

CONCLUSIONS

Hotels are laboratories for testing solutions to prevent marine litter and data is needed to focus on marine litter prevention policies.

The commitment of hotels to implement marine litter prevention measures helps suppliers to change their processes and reduce the generation of single-use plastics.

Transparency in communication is essential in order to gain the trust of users and achieve quality tourism.

Professional advice is essential for hotels to implement solutions that are honest and avoid false alternatives that can have a higher impact than the single-use plastics they replace.

Environmental certifications for the prevention of plastic-free facilities are very useful if they include accompaniment throughout the process and the involvement of all hotel workers.



TT5 -MARINE LITTER. COMMUNICATION AS A BANNER FOR THE SOLUTION OF A GLOBAL PROBLEM

📍 MACARONESIA ROOM

📅 08/03/2023 🕒 15:30-16:25

Chairperson: Íñigo José Núñez

DESCRIPTION

Despite the huge number of international initiatives involved in the fight against marine litter, citizen participation and the inclusion of this problem in governmental agendas is still timid. In what way, what type of messages, on what platforms we should communicate will be the debate in which leading figures in the field of communication will participate to contribute a different vision that will allow us to effectively reach out to the public.

CONCLUSIONS

The session has been a meeting point between the different research groups, companies and institutions dedicated to the environment and the care of our oceans with representatives of the media, where they have explained how they manage the information they receive to give the news, always making sure that the source is reliable.

Tips have been given on how to communicate with them and to give visibility to the relevant information that they think the research groups and institutions have.

They also talked about the influence of new channels of access to information, such as social media, and the importance of the journalist-communicator vs. the channel. We have changed from a model where people mainly trusted the masthead, which still exists, to a model where the reader looks for the reference in the journalist who offers contrasted and quality information.



CHAIRPERSON

Mr. Íñigo José Núñez Quintana

Ewaste / Fundación Canarias Recicla

CEO



SPEAKERS

Ms. Sara Güemes

Ecoembes

LIBERA project coordinator



Mr. Nicolas De Vicente

TVE-RTVE

News Services Journalist



Mr. Javier Salas

El País

Head of Section



Ms. Laura Afonso González

Canarias Radio

Editor



3. MARLICE4PEOPLE

MARLICE4PEOPLE has opened up the forum to the city, sharing initiatives with citizens and inviting them to collaborate towards a future free of rubbish in our seas and oceans.

The programme has been divided into various actions with the aim of generating knowledge transfer and raising awareness among the general public, with activities including a photographic exhibition, a beach clean-up with schoolchildren and collaboration in the celebration of a free concert promoted by the Government of the Canary Islands and with the collaboration of the Puerto de la Cruz Town Council, framed within the Strategy for Plastic in the Canary Islands to promote sustainable leisure.

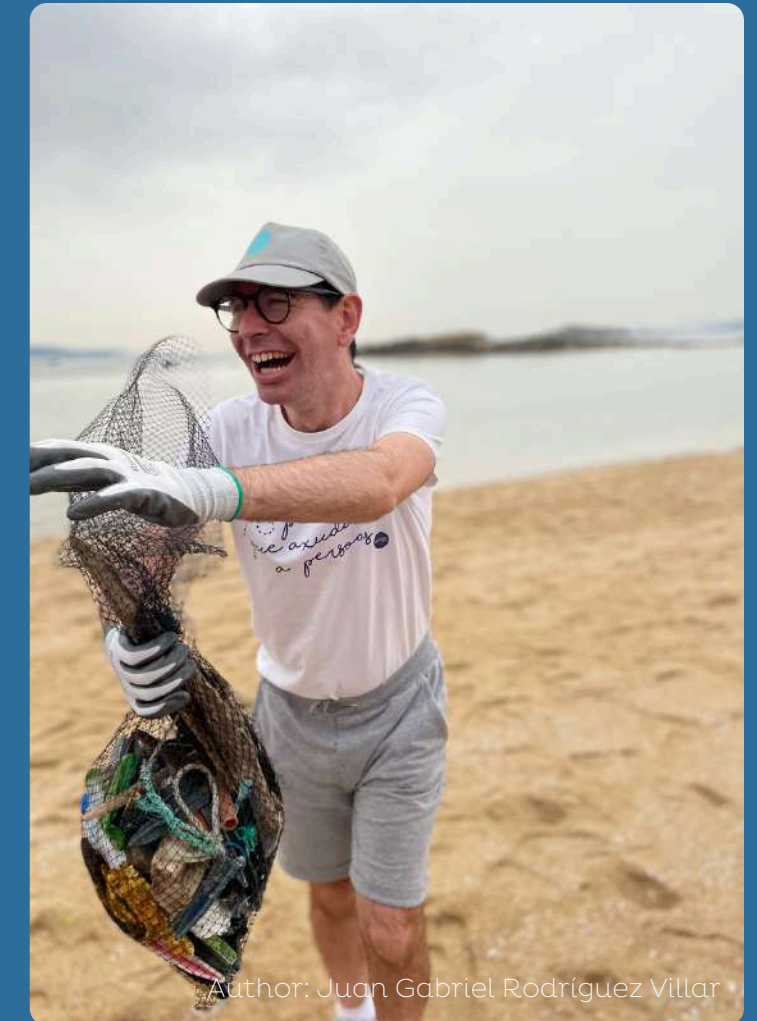


PHOTO COMPETITION AND EXHIBITION

The 1st MARLICE "Marine Litter" Photography Competition was held, with more than 40 photographs submitted, and was awarded to Francisco Javier Murcia Requena for the photograph "It's not food!!!".

MARINE LITTER EXHIBITION

Creando con Ciencia has presented in the Forum the Jallo Exhibition, made with marine litter found during its activities on beaches.



CONCERT

Another of the activities programmed was a concert for the responsible use of plastics and care for the oceans.



CITIZEN SCIENCE

A group of schoolchildren from the municipality took part in a clean-up and characterisation of marine litter on the beach.



4. SOCIAL MEDIA

15.3K copies
191 Tweets
5.6% engagement rate
71 retweets without comments
112 mentions
385 interactions



7,755 copies
Accounts reached 596
Accounts engaged 94
6 posts
95 stories
173 interactions
201 profile activity



1,678 copies
164 views
53 unique visitors
61 reactions
526 clicks
38.2% iengagement rate
16 posts



2,159 copies
95 clicks on the page
179 interactions
1,314 reach
5 posts
95 stories



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MARLICE ISLANDS
I INTERNATIONAL FORUM ON MARINE LITTER AND
CIRCULAR ECONOMY ON ISLAND ENVIRONMENTS

7 – 8 March 2023
Puerto de la Cruz – TENERIFE (CANARY ISLANDS)



**Gobierno
de Canarias**



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ASOCIACIÓN ESPAÑOLA
DE BASURAS MARINAS



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