

## 5.6.1. Next Steps Plan

Funding N.		613 / 1442906804	Acronym	BLUEISLANDS
Full Title		Seasonal variation of waste as effect of tourism		
Funding scheme		Interreg Mediterranean – European Regional Development Fund		
Programme priority axis		Priority Axis 3: Protecting and promoting Mediterranean natural and cultural resources		
Programme specific objective		3.1: To enhance sustainable the development policies for more efficient valorisation of natural resources and cultural heritage in coastal and adjacent maritime areas of a sustainable and responsible coastal and maritime tourism in the MED Area		
Thematic Community		Natural and Cultural Resources – Sustainable Tourism		
Duration of the project	Start date of project	01/11/2016	Number of months	
	Ending date	30/04/2020	42	
Project coordinator		Ministry of Agriculture, Rural Development and Environment of Cyprus		
Document Type		Working Document		
Document Title		5.6.1 Next Steps Plan		
Work Package		WP5 - Transferring		
Authors		Autonomous University of Barcelona (UAB)		

## TABLE OF CONTENTS

<b>Table of Contents .....</b>	<b>2</b>
<b>I. Introduction .....</b>	<b>3</b>
The Blueislands Project: 9 Mediterranean islands committed to the issue of waste.....	3
Steps and actions implemented during the project.....	4
Tourism footprint on Mediterranean islands coastal areas.....	4
raising awareness to reduce, sort and recycle waste .....	5
<b>II. Methodology .....</b>	<b>5</b>
A document based both on the project outputs and on the contributions of field stakeholders. .	5
<b>III. A common strategy for a better waste management in Mediterranean islands and coastal areas .....</b>	<b>6</b>
Results overview: feedback and recommendations for implementing actions .....	6
Adapting public policies: perspectives and priorities for strengthened action .....	11
<b>IV. Toward a Waste Observatory For Mediterranean Islands And Coastal Territories?.....</b>	<b>13</b>

## I. INTRODUCTION

### THE BLUEISLANDS PROJECT: 9 MEDITERRANEAN ISLANDS COMMITTED TO THE ISSUE OF WASTE

The BLUEISLANDS Project was a 3-year Interreg MED project, funded by the European Regional Development Fund. It aimed to identify, address and mitigate the effect of the seasonal variation of waste generated on Mediterranean islands, as an effect of tourism.

The Mediterranean region is the world's leading tourist destination and it is common for islands to host far greater population during the summer season. Local economies are deeply reliant on tourism for employment and income source. However, this annual massive tourist wave, largely concentrated within a short period, places a great burden on the infrastructures, especially for waste management. Indeed, local authorities are often struggling to cope with the high increase in waste generation and the often poor sorting level from tourists.

Additionally, whilst it is a well-known phenomenon, the seasonal variation of waste generation in sea-locked island had to be properly defined and its socioeconomic and environmental effects determined. Isolation and the lack of space for facilities create an additional constraint for these territories, and the BLUEISLANDS project aimed to provide answers to these concerns.

The project was carried out by 14 partners, including 9 Mediterranean islands, 2 economic operators, 2 research institutions and 1 international association specialised in resource management.



## STEPS AND ACTIONS IMPLEMENTED DURING THE PROJECT

### Research and study phase

Systematic identification, quantification and characterization of waste. Development of scientific protocols, methods and tools for **the characterization of the municipal waste**, and for the **analysis of both marine litter and anthropogenic nutrients**.

### Design and implementation of pilot actions

For the **reduction of waste**, to **raise the awareness** of a large audience, to encourage the **development of innovative technologies** and to provide **decision support for effective public policies**.

### Results and good practices dissemination

Promotion, transmission and **dissemination of the tools, good practices and innovative solutions that have been identified and / or tested in the islands** during the project. These actions (**workshops, conferences, seminar, handbook**) were targeting experts, citizens, NGOs, professionals and decision-makers

## TOURISM FOOTPRINT ON MEDITERRANEAN ISLANDS COASTAL AREAS

During the study phase of the [BLUEISLANDS](#) project, the impact of tourism on the waste generated in the coastal areas of Mediterranean islands was assessed. The variation and the characterisation of municipal solid waste (MSW), the generation and accumulation of marine litter on beaches and the enrichment of coastal waters by nutrients of anthropogenic origin were investigated. The results are clear: the population increase during the summer is associated to an increase of the waste generated, representing a challenge for the local authorities.

The results show that the average amount of municipal solid waste increased from June to August, before decreasing until November. The organic waste is the highest contributor to the municipal solid waste, followed by glass, plastics, paper, other solid waste, metal and wood. During the high season (May to September), a tourist will generate on average 1.85 times more waste per day than a resident. This value can increase up to 2.07 in August.

Furthermore, the accumulation of marine litter related to recreational activities is multiplied by 3.4 to 4.2, compared to the low season, on touristic and popular beaches. Amongst the most common items, cigarette butts and plastic fragments, represent on average more than 70% of the marine litter. An accumulation index was developed to better assess the dynamics of the marine litter on beaches, to support efficient mitigation strategies by local authorities and to move towards a more sustainable tourism.

## RAISING AWARENESS TO REDUCE, SORT AND RECYCLE WASTE

On the basis of these results, and with the support of the **tool for compiling action plans** in analysing the outcomes of the study phase and drafting a plan of effective actions, all the local partners prepared a plan proposal indicating pilot activities to be carried out in each island, for each type of waste that needed to be reduced or not increased (municipal solid waste, marine litter, anthropogenic nutrients in marine coastal waters).

The main goal of this phase was to develop and implement pilot actions designed to reduce the effects of seasonal variation of waste generated in 6 of the islands studied during the project: Cyprus, Malta, Sicily, Crete, Rhodes, Mallorca; it should be noted that in the end, 8 islands have implemented the pilot actions. Monitoring and evaluation, during or after the implementation of the pilot actions, shown that these actions had a positive impact, and contributed to reduce significantly the wastes released in the environment of the beaches that were selected as pilot sites.

## II. METHODOLOGY

The purpose of this Next Step Plan is **to produce a final strategic note** with proposals & suggestions for an efficient waste management in Mediterranean Islands, including recommendations for policy makers. This plan identifies how the key results of the project can be shared to other territories, but also have impact on the local, regional, national, and EU policies. It creates the opportunity to capitalise on the project findings and to disseminate them worldwide, through the BLUEISLANDS network but also, beyond the Mediterranean island territories, all across the EuroMed Area.

Concretely, this document targets two types of end users:

- on the one hand, the stakeholders involved in better waste management at local level, who wish to develop and implement a strategy and a concrete action plan in this direction,
- on the other hand, the policy makers at regional, national and transnational level, to encourage and give directions for the design of new policies and regulations regarding waste issues, adapted to the local needs and situations.

### A DOCUMENT BASED BOTH ON THE PROJECT OUTPUTS AND ON THE CONTRIBUTIONS OF FIELD STAKEHOLDERS.

This document was developed using different means and tools for capitalising on the results of the BLUEISLANDS project:

- **compilation of the results documented in the project reports and outputs.** A focus was given to the reports relating the **exchanges and debates that took place during the Transnational and Regional Workshops**. These workshops were organised in each participating island, plus one transnational event that was organised in Marseille. During these days, stakeholders, experts, scientists, NGOs, professionals from the HORECA and clean tech sectors, citizens, public authorities, institutions were invited to share good practices,

innovations, knowledge, and to think about how to improve waste management in island and coastal territories but also, at a wider level, in the whole Mediterranean basin.

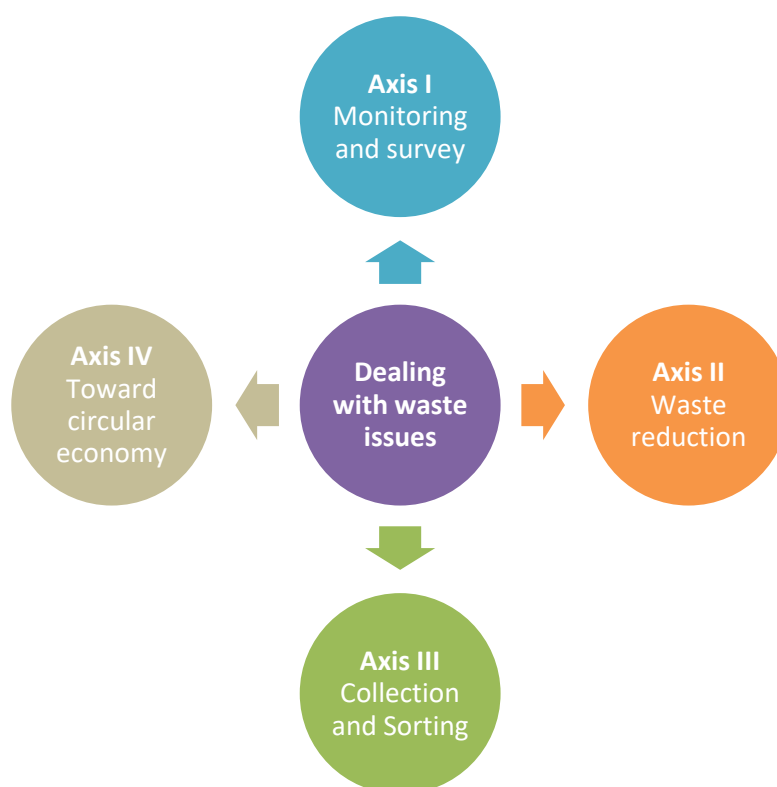
- the **completion of a questionnaire**, elaborated by the Autonomous University of Barcelona in collaboration with EA éco-entreprises (a clean tech SMEs cluster), by the partners involved in field action. This questionnaire was oriented to: **collect a qualitative feedback** regarding the actions conducted during the project, to **improve the actions, means and tools developed**, but also to **bring up ideas and proposals for the future**.

The compilation of all the materials and data collected permitted to build a **common operational strategy plan** that could be useful and operative both for local authorities and stakeholders that want to implement waste management actions at local level, and for policy makers that want to propose new waste policies and regulations adapted to the situations faced in the Mediterranean Area.

### III. A COMMON STRATEGY FOR A BETTER WASTE MANAGEMENT IN MEDITERRANEAN ISLANDS AND COASTAL AREAS

#### RESULTS OVERVIEW: FEEDBACK AND RECOMMENDATIONS FOR IMPLEMENTING ACTIONS

The following tables synthesise feedbacks and recommendations regarding the actions implemented and tested within the BLUEISLANDS project. These actions are grouped according to **4 main strategic axes of intervention** for the improvement of waste management in the island and coastal territories of the Mediterranean.



STRATEGIC AXIS	FIELDS of ACTION	IMPLEMENTED / TESTED ACTIONS	LEVEL of ACTION	TESTING LOCATIONS	STAKEHOLDERS INVOLVED	RECOMMENDATIONS and COMMENTS
<p><b>AXIS I - Monitoring and survey of waste</b> generated on the coasts of Mediterranean islands as an effect of tourism (scientific and technical approaches for a better knowledge / comprehension of the situation).</p> <p><i>The BLUEISLANDS project has shown that a regular monitoring of 1) the marine litter generated on the beaches, 2) the quality of the sea water and 3) the amount and type of waste collected by the public trash bins in general or generated by the establishments of the HORECA sector in particular is a prerequisite to assess the impact of tourism on the generation of waste and prior to implement any strategy to manage and reduce this amount of waste.</i></p>	Data collection and analysis	Monitoring and survey of marine litter generated on beaches	local	Cyprus Rhodes Crete Mykonos Rab Sicily Malta Mallorca	Universities & research centres Public authorities	<p>Studying and monitoring during the implementation of the project has <b>provided the islands authorities with important information regarding the amounts, the type and the seasonal variation of waste generated</b> in the coastal areas which have to face a strong tourist inflow during the summer.</p> <p>Although <b>regular studying and monitoring supposes to take critical points into account</b>:</p> <ul style="list-style-type: none"> <li>- In some islands, the <b>waste collection is both conducted by public and private sector</b>. It is difficult to obtain datas regarding waste collected by private operators, especially during the summer season. <b>Strong cooperation between public and private bodies should be a priority</b></li> <li>- To carry out <b>the survey during high season is quite complicated</b>.</li> <li>- <b>Detecting micro-plastics on the beaches is difficult</b>, there are no suitable means and equipment. The manual collection method <b>supposes important human resources and means</b>. A perspective would be <b>to develop and increase participative/grassroot approach and research</b>, involving schools pupils and university alumni, NGOs volunteers and citizens.</li> <li>- <b>Smart trash bins with a chip</b> could permit to collect detailed datas about waste collected and <b>would facilitate monitoring for waste characterisation</b>.</li> <li>- <b>There is a number of simultaneous studies, surveys, forms, questionnaires</b>.</li> </ul> <p>Monitoring requires an orderly and timely delivery of quality data, as well as efficient monitoring system, <b>it is important that one who provides data is sure of necessity of delivering it for the sake of achieving common goals and benefits</b>.</p>
		Monitoring and survey of anthropogenic nutrients in coastal sea water	local	Cyprus Rhodes Sicily	Universities & research centres Public authorities	
		Characterisation of the waste collected in public trash bin and/or generated by HORECA sector enterprises/facilities	local	Cyprus Rhodes Crete Mykonos Rab Sicily Malta Mallorca Sardinia*	Universities & research centres Public authorities Waste management body HORECA sector	
	Interpretation, communication and valorisation of the results	Scientific communication: comparison of analysed data (indicators and index), conferences, paper publication	transnational		Universities & research centres	Publication of the scientific results in open access journals make them publicly available
		Valorisation of the results to feed public authorities' strategies, decision making processes and action plans - Planification at Island Level	Governmental Regional Island's scale	Cyprus Rhodes Crete Mykonos Rab Sicily Malta Mallorca	Universities & research centres National authority Regional authority Local authorities	<p><b>Collected information</b> on the quantity and composition of waste on the islands <b>contributes to awareness raising of policy makers</b> at the local and regional level. <b>It also contributes to identify and disseminate possible solutions</b> and to start new initiatives aimed at solving this problem.</p> <p>A key step prior action is to <b>establish an official planification framework at the whole island level</b>: a National, Regional or Municipal <b>Strategy and Action Plan</b>. <b>Effective cooperation and coordination between the stakeholders</b> is therefore crucial for efficient Strategy implementation.</p>
		Vulgarisation of the results to rise awareness of a large audience (inhabitants, tourists) about the up-to-date reality of waste issues at local and transnational levels	local	Cyprus Rhodes Crete Rab Sicily Mallorca	National authority Regional authority Local authorities	Providing the <b>awareness supports and materials with specific local data helps to convince</b> the targeted audience.



STRATEGIC AXIS	FIELDS of ACTION	IMPLEMENTED / TESTED ACTIONS	LEVEL of ACTION	TESTING LOCATIONS	STAKEHOLDERS INVOLVED	RECOMMENDATIONS and COMMENTS
<p><b>AXIS II - Source reduction of waste</b> generated on the coasts of the Mediterranean islands as an effect of tourism.</p> <p><i>The BLUEISLANDS project has shown that awareness campaigns had a clear positive effect on the generations of marine litter associated to tourism. In more than 90% of the beaches where pilot actions were conducted, we observed a reduction of about 50% of the amount of marine litter generated by tourism.</i></p>	Zero Plastic Waste policies and actions	Laws and regulations limiting the use of single-use plastic items	Governmental Regional Local	Balearic Islands Sicily	Regional authority Local authorities	It is to be underlined that actually, <b>compostables and recyclables alternatives to single-use plastics items and containers can not develop massively</b> , due to the following problems: - <b>difficulty to find competing products on the local market</b> (supply chain) - it cannot be composted like classic vegetal organic waste. <b>It needs a specific treatment, and the local waste recycling chain does not exist</b> . A priority would be to develop, regionally, such a recycling and treatment chain.
		Cooperation agreements, charters and memoranda between Governmental authority (National or Regional), Local authorities and the HORECA Sector for sustainable beaches without disposable plastics	Governmental Regional Island's scale Local	Crete	Regional authority Local authorities HORECA sector	<b>The shared responsibilities must be different and adapted for each kind of stakeholder</b> (Governmental authority, Municipalities, HORECA sector). Key points are: For Governemental authorities, to <b>adapt the regulations</b> to the local situation and needs, and to <b>support the actions implemented locally</b> . For municipalities, every concession to a contractor who undertakes the <b>management of a beach must have strict and detailed conditions regarding waste issues</b> . For hoteliers, the <b>abolition of disposable plastics</b> should be a priority, as well as <b>contribute to a better waste sorting</b> and to the <b>awareness of employees and tourists</b> .
		Mobile (bus) or on site awareness campaigns to reduce the use of single-use plastic items (straws, cups, food containers, etc.) and to promote alternatives	Island's scale local	Rhodes Mykonos Rab	Local authorities HORECA sector Schools	Distribution of awareness and education materials contributed to awareness raising of all beach visitors. The <b>fluctuations of total number of tourist and visitors between seasons makes it necessary to repeat the awareness and education activities again and again</b> because the level of awareness varies. It would be <b>recommendable to conduct awareness and education activities on constant basis</b> in the form of permanent programs.
	Development and promotion of alternatives to plastics, re-usable items and refill systems	Provision / distribution of reusable items (bags, cups, straws, water bottles, tissue papers, etc.)	local	Crete Cyprus Mykonos Malta	National authority Local authorities Schools Waste management body	There are <b>no currently competing products or solutions available on all the local markets</b> to help remove disposable plastics. This is a <b>great opportunity for small and large businesses to invest in the manufacture of recyclable or alternative non-plastic or multi-purpose plastic products</b> . These companies will be able to supply the entire tourist chain of their island.
		Encouraging refill systems	Regional Local	Mykonos Crete	Regional authority HORECA sector Local authorities	<b>Water refill system is a very effective alternative to plastics water bottle, that can be implemented locally</b> (provision of reusable water bottles and installation of drinkable water fountains in shops, public and private areas and facilities, hotels, etc.). It is to notice that the loss of the income linked to the sell of drinking water plastic bottles can be replaced with the sell of reusable water bottles.
	Rise awareness to reduce waste generation	Awareness and education programs at local level engaging coastal businesses, such as beach bars, restaurants, hotels, kiosks etc..., located around beaches in protecting the coastal environment and minimizing their plastic waste, by encouraging them to introduce sustainability practices in their everyday operation.	local	Cyprus Mykonos	National authority Local authorities Business association Small tourism businesses	There is still much to do on small accommodation and restauration facilities, specially when they are close to the sea. Hotel accommodations are sometimes more aware because they are more in a "entrepreneurship perspective", and so they are usually informed about trends and have a more demanding clientele (e.g. Environmental Quality Certifications). Certifications and charters could be a good mean and tool to convince small tourism business to introduce sustainability practices in their enterprises.
		Educational programs and visits for schools, young people and alumni	local	Rhodes Mykonos Sardinia*	Local authorities HORECA sector Schools	<b>Environmental education is a long-term action that contributes to increase the sensitivity of public opinion</b> , specifically thanks to the <b>schools' involvement</b> . <b>Involving young people in awareness raising activities</b> is also very effective.





STRATEGIC AXIS	FIELDS of ACTION	IMPLEMENTED / TESTED ACTIONS	LEVEL of ACTION	TESTING LOCATIONS	STAKEHOLDERS INVOLVED	RECOMMENDATIONS and COMMENTS
<p><b>AXIS IV - Toward a circular economy.</b></p> <p>How the treatment, recycling, recovery and reuse of the waste generated by tourism on Mediterranean island coasts can be beneficial to the local economy?</p> <p><i>The BLUEISLANDS project has shown, through the identification and the collection of existing good practices (waste management handbook, transnational and regional workshops), that there are low cost and low tech innovations and solutions that permit to treat, transform and valorize waste at local and regional level; such innovations could be easily disseminated to island territories.</i></p>	<p><b>Identification, Inventory and promotion of good practices, innovative initiatives and solutions</b></p>	Waste Management Handbook	Transnational National		University & Research centres Business association Public authorities	<p><b>The handbook is a direct, useful and highly impacting tool</b> on communication. It provided several interesting examples of initiatives and solutions in the European context. Professionnals found it very attractive.</p> <p>The <b>practices in the handbook are not all immediately applicable.</b></p> <p><b>Transnational and Regional workshops are very effective for sharing knowledge and know-hows among institutional/governmental and private stakeholders</b>, as well as for the <b>coordination of stakeholders and initiatives at transnational level and at island's scale.</b> However, <b>B2B meetings seem to be more efficient to mobilise local authorities</b> than classical workshops / meetings. During the workshops, <b>public and private companies</b>, NGOs and also HORECA sector <b>have presented very interesting good practices related to organic waste, composting and circular economy that can be easily replicable.</b></p> <p><b>A move toward the circular economy with treatment, recycling, recovery and reuse of the waste could prove like a feasible solution of waste management for island communities</b>, considering their resource and transport isolation.</p> <p><b>A next step would be to design, test, adapt and transfer innovations and solutions, through R&amp;D and B2B approach. Pilot tests are essential to prove that the innovative solutions are efficient and to convince the potential buyers</b> that such investments will have a long term impact in terms of ecological effectiveness and economical competitiveness.</p> <p><b>Also, adaptation of regional, national and EU policies to support (financially) innovation development and dissemination</b> appeared to be a critical next step.</p>
		Transnational workshops	Transnational		University & Research centres Business association NGOs Public authorities	
		Regional Workshops	Island's scale	Cyprus Rhodes Crete Mykonos Rab Sicily Malta Mallorca Sardinia	National authority Regional authority Local authorities University & research centres Business association HORECA sector NGOs	
		Meetings and interviews with local stakeholders	Local	Cyprus Rhodes Crete Mykonos Rab Sicily Malta Mallorca Sardinia	Regional authority Local authorities HORECA sector NGOs Waste managing body	

\*In Sardinia, the tested actions were not implemented as part of BLUEISLANDS project; it refers to other regional and local initiatives, carried out by local stakeholders, and collected through interviews.

## ADAPTING PUBLIC POLICIES: PERSPECTIVES AND PRIORITIES FOR STRENGTHENED ACTION

### *1. Explore waste challenges: extend and consolidate a continuous monitoring and survey system*

**Implement constant monitoring:** studying and monitoring during the implementation of the project has provided the islands authorities with important information regarding the amounts, the type and the seasonal litter increase as well as the beaches and places that are facing the greater problems. The data are partial and concern a too small sample of the whole islands' area. It would be important to implement constant monitoring, in order to be able to study trends from year to year, and to carry out survey campaigns on the rest of the coastal areas.

**Take into account the environmental conditions:** on the coastline and beaches, it is important to consider that garbage is often transported by sea and streams. Also, the weather conditions have to be taken in account: in the Mediterranean, the weather is often windy during summer.

**Develop collaborative and participative research:** Municipalities and HORECA sector enterprises have shown willingness to support waste studies and analysis. Many voluntary associations have shown interest and willingness to cooperate. BLUEISLANDS project created a network of relationships and knowledge. The manual collection method supposes important human resources and means. A perspective would be to develop and increase participative/grassroots' approach and research, involving schools, pupils and university alumni, NGOs volunteers and citizens, also to reduce costs. For example, school pupils could be involved in collecting and categorising data (for beaches); every school could adopt a beach and clean and monitor it every month. Furthermore, for a better commitment of HORECA sector enterprises, and of resort hotels in particular, it appears necessary to convince them that a better understanding of their own waste makes easier to manage it and look for circular solutions, even if there is a cost to carry out characterizations.

### *2. Change the future: develop rising awareness and education programs*

**Training:** for professional (HORECA sector) and local authorities employees and representatives. Targeted training and capacity building is required, especially for the local authorities and the tourist sector (hotels etc.). The Municipalities and public authorities in general need to understand the importance of implementing proposed innovations and solutions that could treat the danger of waste and increase the effectiveness of waste management on a local and regional level.

**Awareness campaigns and educative actions** have been reported as very effective means and tools to change mentalities. In each pilot site, a reduction of waste entering environment and marine litter was recorded, proving the efficiency of these actions. Both participants (schools, local stakeholders, municipalities and public employees, HORECA sector professionals, volunteers) and audience reached (inhabitants, tourists) realise the importance of waste reduction, collection and sorting and of effective waste management, especially during

summer season. Moreover, an increase of local people awareness has been reported, but regular awareness campaigns should be carried out on a yearly basis, to reach more inhabitants and tourists (it is important to underline that during the high season there is a strong turnover of tourists). The public authorities in charge (Regional and municipal authorities) must dispose at least of a yearly budget to finance these campaigns. It would be important also to share all the awareness campaign materials to other municipalities, to cover a wider area (at island's scale) and reach the entirety of tourist population. It is to be underlined that appointment of human advisors on sites during awareness campaign is a critical point to guarantee the success of educational actions and awareness campaigns. Also, waste recycling is very stimulating for the development of educational and creative activities.

**Development of incentives:** rewards (tickets to events, gifts etc) could be distributed for local people. Awareness is not enough, we need tools and we need to break down complex actions into incentive actions: for example, by returning a plastic cup full of cigarette butts, one could receive in exchange a reward (free drink, free snack, etc.).

**Multiply clean up operations,** on beaches and coastal sites, but also at sea. Those initiatives are not only very effective to raise awareness (people realise that the most collected wastes are butts, plastic bottles and cans), it contributes also to create a network between public bodies, local and regional associations and businesses. Many tourists participate in cleaning beaches. It would be important to create a permanent network of private and public bodies at local and regional level, and to involve schools at all levels. Younger kids could learn playing, while teen agers could help in all the cleaning - up activities. Regarding sea cleaning actions, the responsible authority could work in collaboration with local diving teams, sailors and skippers, and citizens as volunteers. Fishermen are frequently committed on waste collection activities, even by their own and without compensation.

### ***3. Invent a better world: develop, test and promote innovative solutions.***

A move toward the circular economy with treatment, recycling, recovery and reuse of the waste could prove like a feasible solution of waste management for island communities, considering their resource and transport isolation, which has been proven by many examples provided in BLUEISLANDS Waste Management Handbook. It would be a priority to **design, test and develop innovations and solutions**, as well as to **adapt and transfer existing ones, through R&D and B2B approach**. Organise B2B and matchmaking actions to bring traders and suppliers of clean tech SMEs into contact with tourism business representatives.

### ***4. Bet on collective intelligence: Coordination of stakeholders, initiatives and actions at island's level***

Until now, the emergence of innovative ideas to deal with waste issues is frequently the fruit of individual creativity and spontaneous initiatives. A strong and generalised intervention promoted by the Regional Governments is needed, allocating part of the funds dedicated to waste management to support these small "customized" interventions, adapted to each different context, perhaps better tightening relationships with other local stakeholders who know better their territory. Therefore, **a coordinative body at island's scale should be**

**established** (e.g. a network or a partnership etc.) that will be responsible for the monitoring of the **implementation of strategy plans**, and each stakeholder will be engaged through undertaking specific actions recommended through the plan, following a **bottom-up approach**. The encouragement of **public-private cooperation** is also crucial for setting up solutions to deal with waste management issues. Additionally, it has been mentioned that several similar actions are taking place all over Islands' area by different organizations targeting the same objectives (e.g. reduction of waste production, reduction of the use of plastic etc.). However these actions are applied sporadically, therefore, the **coordinative body should be responsible to also coordinate these actions** in order to **put forward synergies** so that the actions are more targeted and more efficient.

**Encourage, support and coordinate grassroots initiatives.** The experimentation is entrusted to the initiative of individual administrations and to the people's will. The initiatives are linked to programs financed with European funds or thanks to interested people or to the local administrations sensitive in the environmental protection. Next step would be: **a shared system of actions.**

#### *5. Supporting action for common good: adapt public policies*

**Reinforcement of regulatory framework and control processes.** Sensitize the governmental levels (Regional, National) to issue more stringent directives and guidelines, and intensify controls, specifically for waste collection and sorting. Still, Regional Governments deal almost exclusively with regulating sorted waste collection. Regulations should also target the reduction of waste at source (e.g. limitation of plastic uses, labelling recycled product and ecological production processes, packaging limitation, etc.). Controls and penalties for those who do not respect the rules are still too limited.

**Incite Hotels as major waste producers and the restaurants to follow strict rules for waste sorting.** Legal rules should be laid down for these producers. Financial benefits, for example a discount on public taxes (regional/municipal), could be created for those that recycle big amounts of waste (not only plastic but also organic waste).

**Financial and technical support to innovation and R&D.** There should be additional funding from EU and national level which could encourage private companies and CleanTech SMEs to invest in "circular economy" and develop innovative solutions, while academia, universities, R&D and sector could provide know-how support.

**Financial support to regional and local authorities,** so they can dedicate a yearly budget to:

- conduct regular awareness campaigns, appointing animators and advisors
- adopt innovations and solutions: budget is needed for the buy and service

## **IV. TOWARD A WASTE OBSERVATORY FOR MEDITERRANEAN ISLANDS AND COASTAL TERRITORIES?**



One of the strengths of the BLUEISLANDS project lies in the fact that the actions were developed and tested in close partnership with the main touristic islands in the Mediterranean, whether they are island-states (Malta, Cyprus), islands-regions with a high degree of autonomy (Balearic Islands, Sicily), island-regions (Crete), municipalities (Rhodes, Mykonos) or localities (Rab). **This almost extensive approach gives particular weight to the results of the project**, which will now have to be capitalised at transnational level, **and could serve as a paradigm, not only for Mediterranean touristic islands, but for all the Mediterranean coastal territories.**

**A relevant perspective would be to build a governance and coordination process / institution at transnational level, dedicated to better waste management in the Euro Med Basin:** this could be operated through the **establishment of a Mediterranean Waste Observatory**. Such a transnational institution could **pursue the actions** tested during the BLUEISLANDS project (**monitoring and survey, awareness campaigns, testing pilot actions**), **extend these actions to new areas** beyond Mediterranean islands, **constitute a resource centre** to centralise and disseminate all the information, resources, methods and tools already developed, **develop and implement new action fields** as stressed by BLUEISLANDS partners, but also **advocate with the European, National and Regional institutions for the adaptation of public policies** to the local needs and priorities.

During the BLUEISLANDS project, it appeared that **there are numerous existing initiatives regarding the observation, reduction, management or treatment of waste, throughout the Mediterranean basin**. From local to national level, these actions or projects, individual or collective, are **carried out by a great diversity of stakeholders**: public authorities, public and private companies, SMEs, NGOs, grassroots movements, etc. **The lack of links and coordination between these projects and initiatives limits their impact at the scale of the whole Mediterranean basin**: yet, it should be stressed that the waste found locally, on islands' beaches and coast line comes as much from local tourist frequentation and local society's activities, as from other territories, through sea currents or rivers streams.

**Coordination of initiatives and projects that deal with waste issues**, as well as the **networking of the stakeholders** who carry out these initiatives, **appears thus to be a decisive challenge for the resolution of waste issues** and problems in the Mediterranean. Thus, we propose that the Mediterranean Waste Observatory functions as **a network for sharing and pooling data, knowledge, initiatives and innovations, bringing together all the stakeholders in the Mediterranean**, involved or concerned by the issue of waste. It could thus **play a role of transnational governance on the issue, advocating for a better adaptation of public policies** to the realities and needs on the field, and would constitute **a real resource centre, through a digital platform** for instance, to increase the impact and the visibility of existing initiatives and innovations.

**Such a resource centre and digital platform could be inspired by the ReMED initiative**, carried out by the Terre Mer association in the PACA South Region (France), which aims to federate and mobilise citizens, stakeholders and energies in the service of participative research and action, from a "Zero plastic waste" perspective: <https://www.remed-zero->



[plastique.org/](http://plastique.org/) Better yet, the BLUEISLANDS network could join its forces with the ReMED network, for an extension and a transformation of the existing platform into a Mediterranean Waste Observatory.