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MARine Litter in Europe Seas: Social Awareness and CO-Responsibility

D2.3 ANALYSIS OF THE PROCESSES AND SOLUTIONS INVOLVED IN THE BEST PRACTICES

MARLISCO



Stopping Marine Litter Together

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Document Information

Document: D2.3 Analysis of the processes and solutions of the 72 best practice examples
Revision: Final
Date: 13/11/2013
Author: Demetra L. Orthodoxou, Xenia I. Loizidou, Michael I. Loizides
Contributors: Partners 1-18
Security: PU

Document Information

This deliverable report (D2.3) provides an analysis of the main characteristics of the 72 best practices for the reduction of marine litter recorded by the MARLISCO consortium. It also briefly describes these best practices.

Approvals

Date	Partner
29/10/2013	12 (ISOTECH LTD)
13/11/2013	1 (Provincia di Teramo)

Document History

Version	Date	Comments & Status	Author
v1.0	08/05/2013	First draft shared with consortium for comments.	D.L.O, X.I.L., M.I.L
v2.0	27/08/2013	Revised draft addressing all comments by partners.	D.L.O, X.I.L., M.I.L Addressing comments by: Luigi Alcaro (P1) Eva Garnacho (P3) Isabel Poitou (P7) Isabel Palma (P15) Thomie Vlachogianni (P16)
v3.0	29/10/2013	Quality controlled version sent to Coordinator for comments.	D.L.O, X.I.L., M.I.L
v4.0 Final	13/11/2013	Final edited version.	D.L.O, X.I.L., M.I.L

List of annexes

Annex1_The Template for Recording Best Practices

Annex2_ Overview of the 72 Best Practices

Citation: Orthodoxou et al, 2013. Analysis of the processes and solutions of the 72 best practice examples. Deliverable D2.3 report. MARLISCO project. MARine Litter in Europe Seas: Social Awareness and CO-Responsibility. (EC FP7 Coordinated and support action, SIS-MML-289042), November 2013. 74pp



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EXECUTIVE SUMMARY

This report relates to Task 2.1 of the MARLISCO project, which aims to identify examples of potential solutions through a 'best practice' approach focusing on the processes, types of problems and types of solutions. National Partners of the MARLISCO consortium identified best practices for the reduction of marine litter that are being undertaken in their country or regional sea, resulting in a total of 72 best practice examples. As per the task description, these practices come from all four European Regional Seas and some are being implemented on a global scale. The practices, which address the marine litter issue throughout its lifecycle, from product creation to use and disposal, cover the themes of prevention of marine litter pollution, mitigation of polluted areas and seas and awareness-raising.

The 72 practices also include a wide range of initiatives, most of which are campaigns or other practices, activities or actions. Some policy or regulation implementation initiatives, implemented both nationally and at the local scale, have been recorded, as have economic and market based instruments. Within the MARLISCO best practices are some more 'traditional' ones, such as cleanups and informative campaigns, and some more innovative ones that aim at enhancing public participation in finding viable solutions to the marine litter problem.

This report is Deliverable 2.3, the 'Analysis of the processes and solutions involved in the best practices'. It provides an analysis of the main characteristics of these 72 best practices and also introduces the reader to them. These best practices, which were selected by the partners either because they were familiar with them or because they were involved in them, as well as their analysis, offer a useful snapshot into what is happening around Europe to address the issue of marine litter. Therefore, this report can serve as the starting point and a learning platform for anyone wishing to take action against this important environmental, economic and social problem.

All 72 of the recorded best practices are available on the MARLISCO portal (www.marlisco.eu) together with supporting information such as photographs and relevant reports. Furthermore, the outputs from the analysis and evaluation of these best practices will be used to create a 'what-to-do' guide, a user-friendly tool for decision makers and key stakeholders to increase their effectiveness in implementing best practices to reduce marine litter (Deliverable 2.4).



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1. INTRODUCTION

MARLISCO 'MARine Litter in Europe Seas: Social Awareness and CO-Responsibility', is an FP-7 funded project that aims to develop and evaluate an approach that can be used to address the problems associated with marine litter and that can be applied more widely to other societal challenges. Considering that marine litter is a key threat to marine habitats, species and ecosystem services, MARLISCO aims to achieve substantial benefits through better integration among researchers, stakeholders and society, ensuring a holistic take to the issue towards a collective vision for the sustainable management of marine litter across all European seas. One of the project objectives is to record best practice examples for the reduction of marine litter in European seas and evaluate them in order to select those with the greatest potential to minimise marine litter.

The MARLISCO consortium is comprised of 20 partners from countries situated across four European Seas, with some countries being part of more than one regional sea:

- The Baltic Sea represented by Germany and Denmark;
- The Black Sea represented by Bulgaria, Romania and Turkey;
- The Mediterranean Sea represented by Cyprus, France, Greece, Italy, Slovenia, Spain and Turkey; and
- The North East Atlantic represented by Belgium, Denmark, France, Germany, Ireland, the Netherlands, Portugal, Spain and the United Kingdom.

A total of 72 best practices have been recorded by the MARLISCO consortium. This report presents an analysis of these 72 best practices and introduces the best practices to the reader. Chapter 2 describes the methodology that was used to collect and analyse the MARLISCO best practices, Chapter 3 presents the results of the analysis for all the 72 best practices, Chapters 4 to 8 present the analysis of the best practices according to their region of implementation, Chapter 9 introduces the best practices in groups according to some key characteristics, and finally Chapter 10 contains the discussion and concluding remarks.

It is important to note that the analysis presented in this report is indicative, since MARLISCO only recorded a small sample of the best practices that are being implemented across Europe for the reduction of marine litter. Therefore, the reader should bear in mind that the results from the analysis of the 72 best practices, and hence the discussion and concluding remarks in Chapter 10, are qualitative, indicating main trends.



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2. METHOD

This Chapter describes the method that was used to collect and analyse the best practices for the reduction of marine litter, and outlines some of the limitations of this approach and their effect on the analysis and results.

2.1. *Collecting the best practices*

As per the MARLISCO Description of Work, the project partners identified and submitted best practice examples for the reduction of marine litter that are implemented in their country or region.

The templates: To assist with the recording and ensure consistency in the captured information, a template was prepared, and agreed upon with partners, which aimed to record brief, key information about the practices, including their commencement date, duration, initiating and funding parties and involved stakeholders, a brief description of about 200 words, and the contact details of the responsible organisation/person. The template also contained a section where partners could indicate whether any supporting information, such as reports describing the best practice in greater detail, photographs, excel files with data etc., was available for the example being recorded. Annex 1 shows the template's structure.

Categorisation: One of the key aims of the template was to assist in the categorisation of the recorded best practices according to:

- *Their scale of implementation:* Five options were available for the category 'Scale of implementation': Global, European, Regional (meaning one of the four regional seas), National and Sub-national;
- *Their initiating body:* the type and name of the body that initiated the best practice i.e. whether it was a public body, a non-governmental organisation (NGO) etc.;
- *Their source of financial support:* whether external support was required and if so by whom;
- *Their theme:* Three 'Theme' category options were available in the template: Prevention, Mitigation and Awareness, with Awareness being a crosscutting theme; and
- *The type of initiative:* The possible types of initiative were:
 - Policy/Regulation Implementation, aiming to capture best practices that were implemented in response to European, national or even local policies and regulations;
 - Economic and Market Based Instruments, aiming to capture practices that provide an economic or market advantage (or disadvantage) to reduce marine litter;
 - Campaign;
 - Practice/Activity/Action, aiming to capture any practices not qualifying as campaigns; and
 - Other, aiming to capture any practices not falling within the above initiative categories.

It was anticipated that best practices could address various issues, include a range of activities and receive funding from a number of external sources; therefore multiple answers were possible for 'Theme', 'Type of Initiative', 'Financial Support' and 'Initiating Body'.

In the templates, the partners were also asked to state the success rate of the practice they were recording. The assessment of the success rate of each practice was left up to the discretion of each partner, but for almost all of the practices the partners justified their assessment (i.e. they described why the practice was considered successful by giving information on e.g. the amount of litter collected or prevented, the number of people/companies/stakeholders involved etc.).



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2.2. Creating a database

Once the best practices were collected, the information contained within the templates was transferred to a simple database that was created using Excel (Figure 1). The database allowed for a structured and clear way of recording and viewing the different aspects of the best practices. Excel's 'List' and 'Text Filter' functions were used in combination to maximise the speed of data input and facilitate the analysis task, since they allow the user to selectively view items within a specific category or groups of categories.

No.	Title	Country of BP	Scale of Implementation	Duration (years)	Theme	Type of Initiative	Volunteers used?	Litter Details	Financial Support?	By Whom?	Data on nos/%	Initiated By	Initiated By (Details)	URL link
BP2	1B Beach Cleaning 'Mare Pulito'	Italy	Sub-national	>5	Awareness Mitigation	Campaign	Yes	Beach	Yes	EU	No	Other Public Body	Coastguard of San Remo	http://www.gionha.eu
BP3	1C Sea Cleaning Vessel 'Battello Spazzamare'	Italy	National	>5	Awareness Mitigation	Campaign	No	Floating Debris	Yes	National Government	No	National Government	Ministry of the Environment and Protection of Land and Sea	http://www.puntacampanella.org/del-parco-marino-di-punta-camp
BP4	1D Seabed Cleaning - collection and disposal of litter greater than 50m depth	Italy	Sub-national	0-1	Awareness Mitigation	Practice/Activity/Action	Yes	Seabed	Yes	EU	Yes	Other Public Body	Regional Agency for Environmental Protection of	http://www.gionha.eu
BP5	1E Seabed Cleaning - collection and disposal of litter up to 50m depth	Italy	Sub-national	2-5	Awareness Mitigation	Campaign	Yes	Seabed	Yes	EU	Yes	Other Public Body	Regional Agency for Environmental Protection of	http://www.gionha.eu
BP6	2A Fishing for Litter in Germany	Germany	Sub-national	2-5	Awareness Mitigation	Practice/Activity/Action	Yes	Floating	Yes	National Government	Yes	NGO/Charity/Foundation	NABU	
BP7	2B Protect a Wreck	Netherlands	National	2-5	Awareness Mitigation	Practice/Activity/Action	Yes	Seabed	Yes	NGO/Charitable Donations	Yes	NGO/Charity/Foundation	KIMO Netherlands	
					Awareness	Campaign		Other				Private	EUCC	www.beschermeenvrak.nl

Figure 1 Extract from the Excel database where the 72 best practices were recorded.

2.3. Analysis concept

A total of 72 best practice examples were recorded by the MARLISCO consortium, covering a range of themes and initiative types and addressing the issue of marine litter throughout its lifecycle (from prevention during product manufacturing to collection from the marine environment). This report presents the analysis of these best practices. It starts by looking at all the best practice examples together and goes on to analyse them in groups according to their area of implementation. The analysis is limited to the number or percentage of the practices reporting a particular aspect or characteristic. As described in section 2.1, multiple selections were possible for some categories: namely 'Theme', 'Type of Initiative', 'Financial Support' and 'Initiating Body'. In the cases where multiple selections were made, the adjusted percentage was calculated, to avoid counting for a specific best practice multiple times. Section 3.3 gives a worked example of how this process was implemented. Where the sample size would allow it, an analysis across two different types of aspects was carried out to assess whether it was possible to observe any relations.

Further details on the practices can be found on the MARLISCO portal (www.marlisco.eu) and in Annex 2, which lists the best practices and includes internet links for further information and references to where they are mentioned in this report.

2.4. Limitations

There was a pre-selection of practices involved since all partners submitted best practices that they were either familiar with or were involved in. However, this is not surprising or uncommon in situations where it is left up to the discretion of the individual to choose which practices to submit. In the specific case of MARLISCO, this can also be seen as an advantage, since partners chose to submit practices that represent the very best from their country or region.

Some partners submitted more practices than others, creating an imbalance in the distribution of best practices across the map of Europe, making it seem as though more is taking place in one country/region than in another (Figure 2). The fact that the MARLISCO consortium is made up of an unequal number of partners in each of the four regional seas also contributed to this effect. This report presents an overview analysis of all the recorded best practices, but also analyzes the best practices in groups, according to their geographic area (i.e. the regional sea where they were implemented), in order to provide 'snapshots' of what is happening in each regional sea. Readers should bear in mind that these regional analyses are qualitative and serve to identify trends, and that the best practices recorded within MARLISCO are indicative of what is happening throughout Europe.



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3. THE 72 BEST PRACTICES: AN OVERVIEW ANALYSIS

3.1. Geographic distribution

The 72 best practices recorded by the consortium were categorised in 6 groups according to their area of implementation: one group for each of the four European Seas, one for practices applied across Europe and one for practices applied globally, so as to allow regional characteristics to emerge. This grouping revealed that the geographical distribution of practices was unequal (Table 1), with the Mediterranean Sea and North East Atlantic being over-represented, partly due to the fact that there was a greater number of partners representing the Mediterranean (7 partners) and the North East Atlantic (9 partners) than partners representing the Baltic (2 partners) and the Black Sea (3 partners), and partly due to the fact that various partners representing the Mediterranean and the North East Atlantic submitted more practices than others (Table 2).

Table 1 Number of practices recorded by the MARLISCO consortium, per marine area of implementation.

Geographic Region	No. of Best Practices
1 Mediterranean Sea	18
2 North East Atlantic	36
3 Baltic Sea	4
4 Black Sea	8
5 European	1
6 Global	5
TOTAL	72

Table 2 Number of best practices submitted by each MARLISCO partner.

Partner	Country	No. of Best Practices
1 Provincia di Teramo	Italy	5
2 Coastal and Marine Union (EUCC)	The Netherlands	2
3 Centre for Environment, Fisheries & Aquaculture Science (Cefas)	United Kingdom	2
4 University of Plymouth	United Kingdom	2
5 European Plastic Converters	Belgium	3
6 European Plastic Recyclers	Belgium	3
7 MerTerre	France	9
8 Regionalni Razvojni Center (RCC) Koper	Slovenia	2
9 University College of Cork	Ireland	2
10 Mare Nostrum	Romania	2
11 Die Küsten Union (EUCC-D)	Germany	1
12 ISOTECH Ltd	Cyprus	6
13 Union of Bulgarian Black Sea Local Authorities (UBBSLA)	Bulgaria	5
14 Plastics Europe	Belgium/Spain	1
15 New University of Lisbon	Portugal	19
16 Mediterranean Information Office for Environment, Culture and Sustainable Development (MIO-ECSDE)	Greece	2
17 Turkish Marine Research Foundation (TUDAV)	Turkey	3
18 Kommunernes Internationale Miljøorganisation (KIMO) Denmark	Denmark	3

3.2. Scale of implementation

The implementation scale of the 72 best practice examples is shown graphically in Figure 2. More than half of the recorded best practices (52.8%) are implemented on a sub-national scale, the great majority of which, 35 out of the 38 sub-nationally implemented best practices, include some kind of Mitigation activity, mainly in the form of



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cleanup actions (either of beach, seabed or floating litter). Prevention activities are included in 9 sub-national best practices, whereas 29 sub-nationally implemented best practices also aim at raising awareness. This information shows that many of the recorded best practices fall within two or more themes, and Awareness, being a crosscutting theme, is widely represented. Nonetheless, 6 sub-national best practices fall purely under Mitigation and 1 purely under Prevention. Section 3.3 gives a more detailed analysis of the theme combinations reported in all the practices, as well as an explanation of how the percent representation of each theme is calculated throughout this report.

Nationally implemented best practices (25 best practices) make up 34.7% of the total. Of these practices, 4 have Awareness and 6 have Prevention as their only theme. Just 3 regional best practices have been recorded, two for the Mediterranean and one for the North Sea, accounting for 4.2% of the total. As also shown in Table 1, the consortium recorded five 'Global' best practices and one best practice that is implemented at the European level.



Figure 2 Geographic distribution of the 72 best practice examples recorded in MARLISCO.

Purple points represent sub-national best practices, green points represent national best practices, the red point represents a European best practice, light blue points represent regional best practices and pink points represent global best practices. Please note that the positions on the map are approximate.



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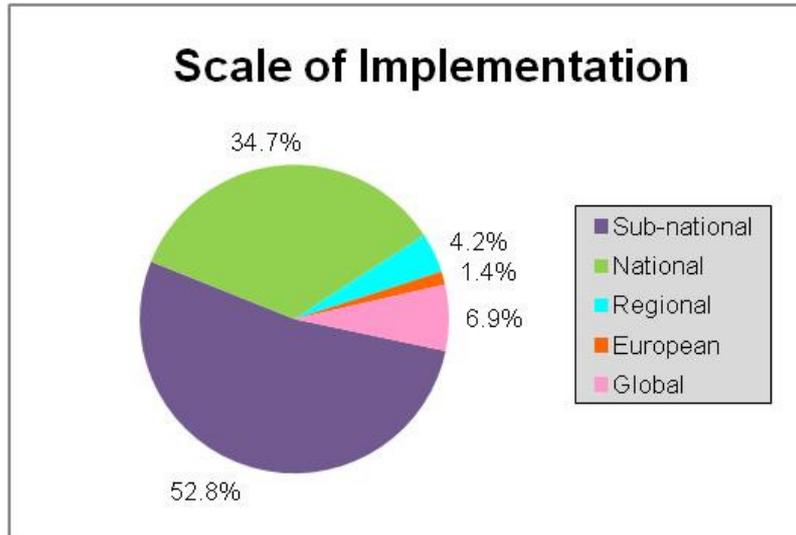


Figure 3 The implementation scale of the 72 best practices.

3.3. Theme

There were three possible themes for the best practices: Prevention, Mitigation and Awareness and, as already described, multiple answers were possible. This resulted in 22 best practices reporting that they fall under one theme only, 43 best practices falling within two themes and 7 best practices falling within all three themes. The combinations of reported themes and their frequency appear in Figure 4.

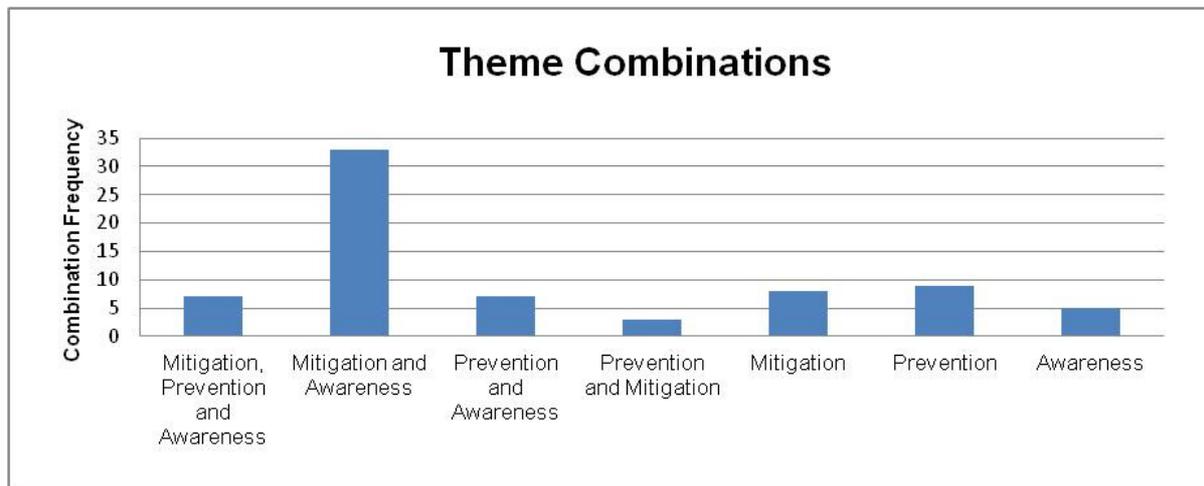


Figure 4 Theme combinations and frequencies for the 72 best practices.

The most commonly reported themes were Mitigation (reported by 51 best practices) and Awareness (reported by 52 best practices), whereas Prevention was reported by 26 best practices. Figure 5 shows the number of times each theme was reported, as a percentage of the 72 practices. The sum of the three percentages exceeds 100% since several practices are counted multiple times. To overcome this problem, the adjusted percentages for each theme were calculated by applying weighting factors to best practices where multiple selections were made (see box below). In the rest of the report, where percentages for themes, initiatives and financial support refer to adjusted percentages, this is clearly stated.



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Adjusted percentages – worked example

Prevention was reported as a theme by 26 best practices. In these 26 occurrences, Prevention was reported as the only theme 9 times, together with one more theme 10 times and with two more themes 7 times.

Therefore, its adjusted occurrence is:

$$\text{Prevention} = 9 + (10 \cdot 1/2) + (7 \cdot 1/3) = 16.33$$

Where 1/2 is the weighting factor applied when 2 themes were recorded together and 1/3 is the weighting factor applied when 3 themes were recorded together.

Thus, its adjusted percentage is:

$$\% \text{ Prevention} = (16.33/72) \cdot 100 = 22.7\%$$

The adjusted percentages for theme representations in all 72 best practices appear in Figure 6, and show that Mitigation was the most represented theme at 40.5% of the practices, followed closely by Awareness at 37.0% and finally Prevention at 22.7%.

It is interesting to note that seven of the ten recorded Policy/Regulation Implementation initiatives, and both Economic and Market Based Instruments, had Prevention as one of their main themes.

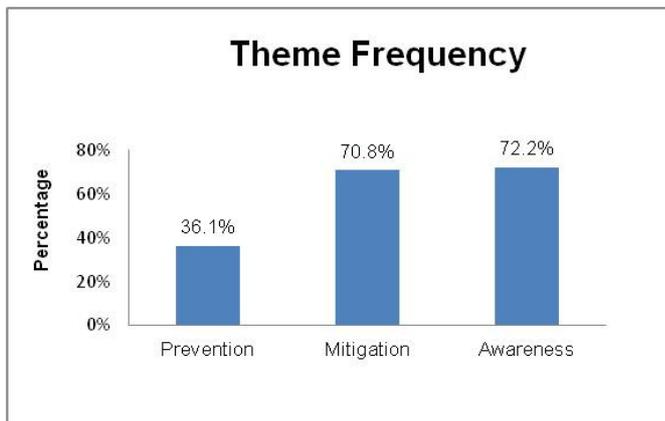


Figure 5 Frequency of reported themes as a percentage of the 72 best practices.

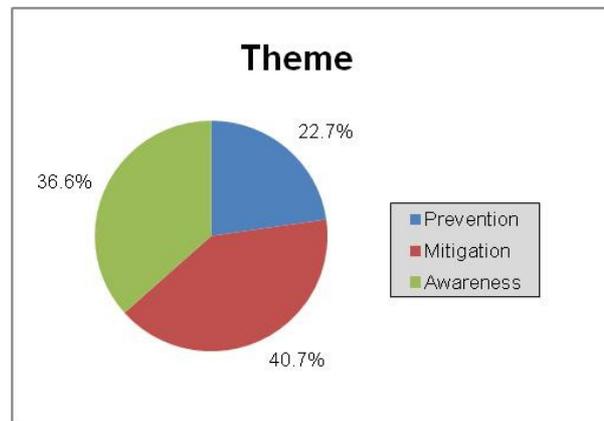


Figure 6 Adjusted percentage occurrence of each theme in the 72 best practices.

3.4. Type of initiative

As with themes, multiple selections were possible when it came to classifying the best practices as different types of initiatives. The most frequently reported combination of initiatives was Campaign together with Practice/Activity/Action (reported 23 times), demonstrating the ease with which campaigns can incorporate actions or activities, such as beach cleanups (Figure 7). In fact, even when reported singularly, Campaign and Practice/Activity/Action were the two most frequently recorded initiatives. Overall, Practice/Activity/Action had the greatest representation at 47.0% followed by Campaign at 36.9% (Figure 8). At 11.6%, Policy/Regulation Implementation initiatives are ranked third (see section 9.3 for more details on policy/regulation implementation initiatives).



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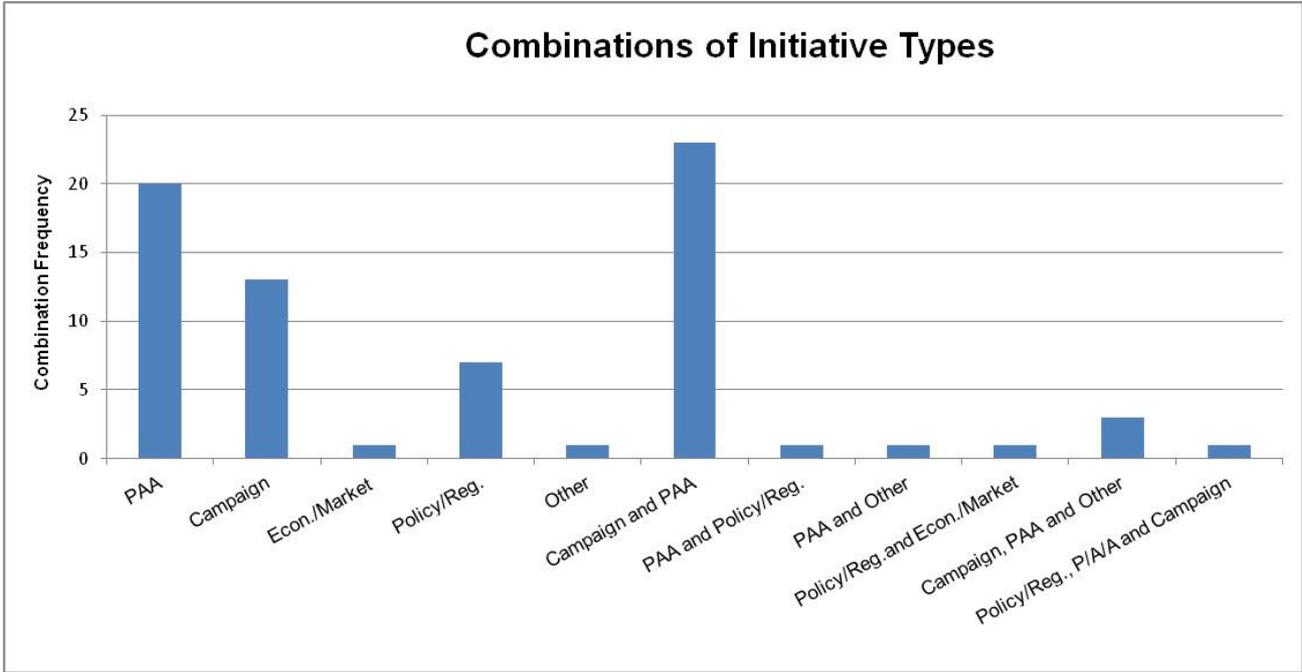


Figure 7 Initiative combinations and frequency for the 72 best practices. PAA stands for Practice/Activity/Action, Econ./Market stands for Economic and Market Based Instruments, and Policy/Reg. Stands for Policy/Regulation Implementation.

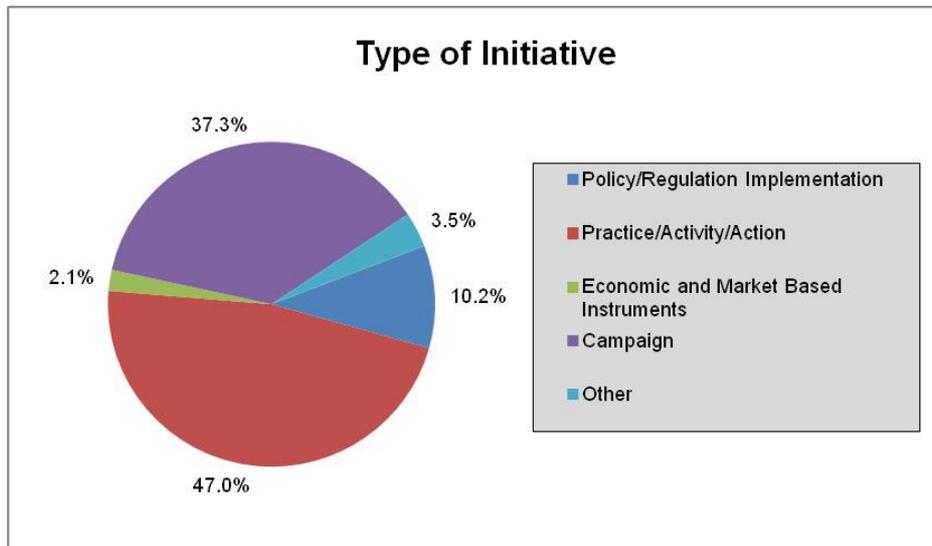


Figure 8 Representation of initiatives in the 72 best practice examples (adjusted percentages).

As Figure 8 shows, only 2.1% of the practices were Economic and Market Based Instruments. This corresponds to two best practices, both of which were implemented at a national level. The initiatives that were recorded as 'Other' make up 3.5% of the total and are comprised of two best practices recorded as educational initiatives, one recorded as an innovation initiative, one recorded as job creation and one recorded as guidance (see section 9.5 for more details on these 'Other' initiatives).



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3.5. Duration

Most of the recorded best practices were long lasting (Figure 9), with durations over 5 years (54.2%) or between 2 and 5 years (31.9%). Five best practices (6.9%) took place only once (one-off), with no indication was given on whether or not they would be repeated, whereas two best practices (2.8%) had duration between 0 and 1 years and three practices (4.2%) lasted 1-2 years. It should be noted that in cases where best practices had a predefined length, the expected, rather than the actual, duration was recorded.

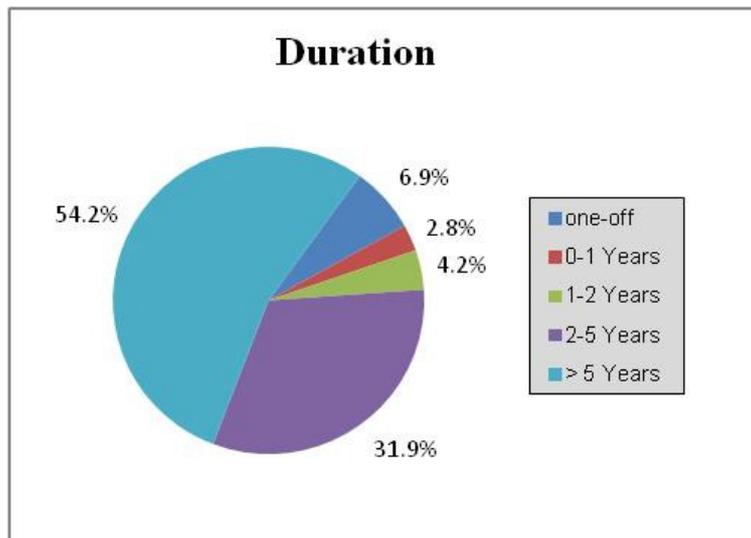


Figure 9 The duration of the 72 recorded best practices.

3.6. Financial support

The information captured in the 'Financial Support' field shows the external sources of funding that were received for the implementation of the best practices. According to the recorded information, 55 of the 72 best practices, representing about 76% of the total, received external financial support, and many received funding from two different sources. The template did not record in-kind contributions from volunteers/organisations and as a result, numerous practices that were initiated and implemented by NGOs were recorded as receiving no financial support. Other practices that did not require any external financial support were those that can be classified as self-funded, for example the 'Plastic Bag Levy' in Ireland, which, through the implementation of a tax on plastic bags, resulting in a revenue for the Irish government (see section 9.3 for more details).

Of those practices that received external funds, 35 were funded or co-funded by a public body, either the national government of the country of implementation, a local/regional authority or through other public funds such as regional water agencies and regional administrations and institutions (Figure 10). Local authority funding was provided to 28.7% of the practices, whereas national governments (24.1%) and the private sector (23.1%) also contributed significantly. Six best practices were funded by the EU (9.3%); specifically, four practices received funding by the European Regional Development Fund, one practice by the European Environment Agency and one practice by the INTERREG programme. Funding for one practice came in part from 'Other' sources, namely UNEP/MAP MEDPOL. NGOs or other charitable donations were also important contributors of funds (9.3%). Had the template recorded in-kind contributions (from NGOs or volunteers) the percentage of practices funded by NGOs or charitable donations would have been much greater.



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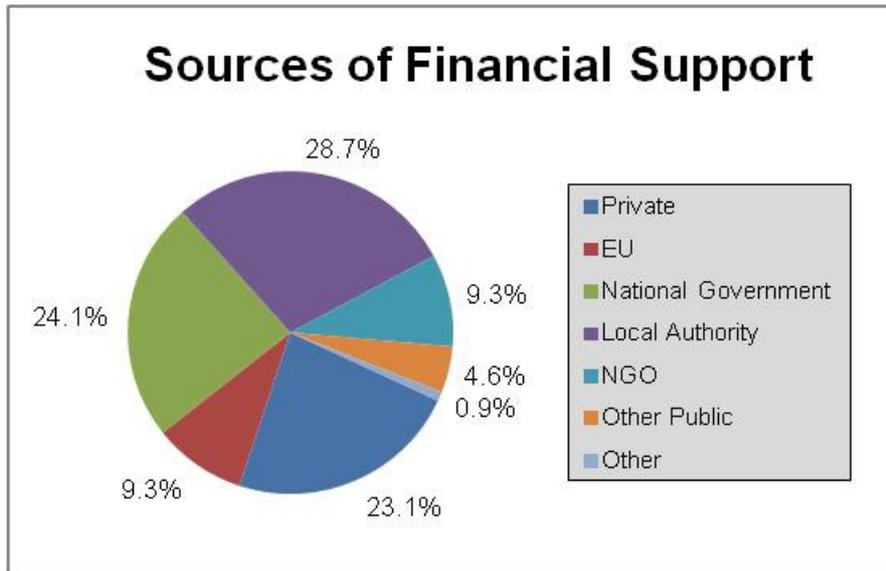


Figure 10 Contributors of financial support to the 54 best practices that received external funding (adjusted percentages). The 'Bag it and bin it – Don't flush it' practice is excluded from this analysis, because although it received external financial support, it was not possible to identify its source.

Carrying out further analysis of the financing of the best practices can be tricky due to the small sample size. There is however a general relationship between the scale of implementation of the best practices and the source of their funding. Of the 38 sub-national best practices that were recorded, 29 received funding, mainly from local authorities (60.3%). Similarly, 47.1% of the nationally implemented best practices that received external financial support (a total of 17 best practices) were funded by the national government of the country of implementation.

The small number of practices within each of the geographic areas shown in Table 1 makes it difficult to make any statistically robust comparisons and draw definitive conclusions about the differences in funding across the geographic regions.

3.7. Initiating Body

Most of the best practices were initiated by one body or organisation, although some were initiated by a public body working together with an NGO/Charity/Foundation or a private company (Figure 11). NGOs/Charities/Foundation were far more likely to initiate a best practice for the reduction of marine litter than any other body, and were responsible for initiating 45.8% of the recorded best practices (Figure 12). Local authorities initiated 16.7% of the best practices, private companies 13.9% and other public bodies and national governments initiated fewer best practices. The EU was responsible for directly initiating one practice, the European 'BREF for the chemical industry'.



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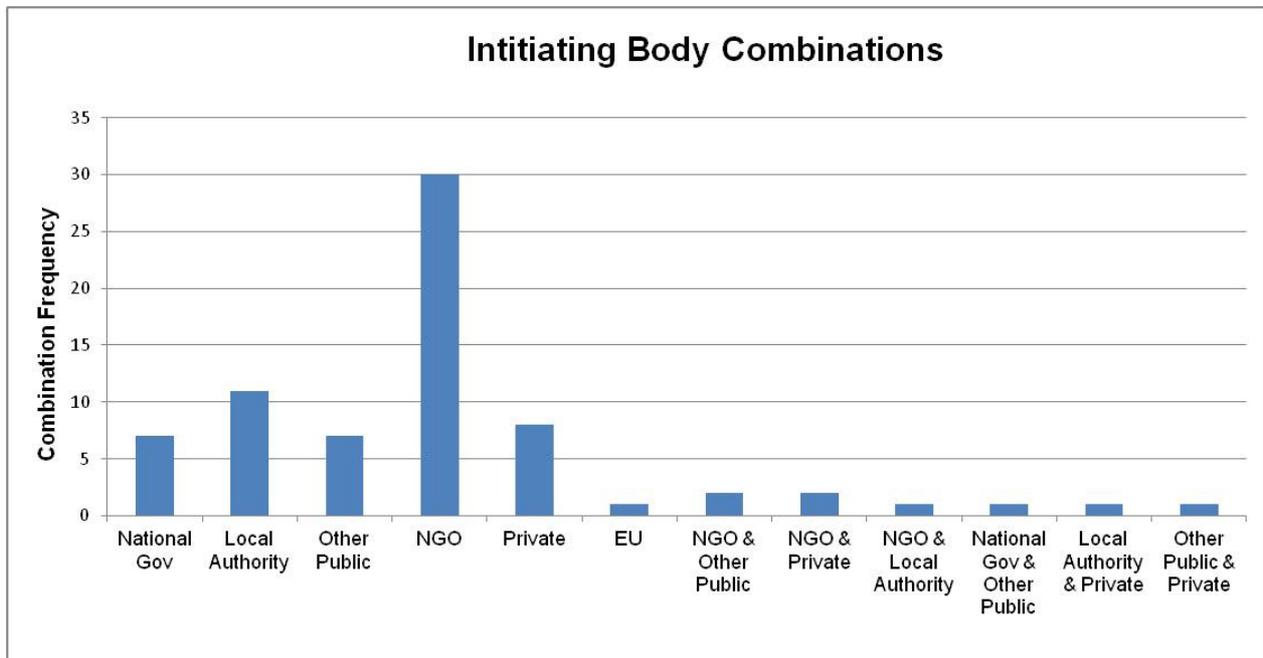


Figure 11 The initiating bodies of the 72 best practices.

'NGO' stands for an NGO, a charity or a foundation, whereas 'Other Public' means a public body that is not the central national government or a local authority.

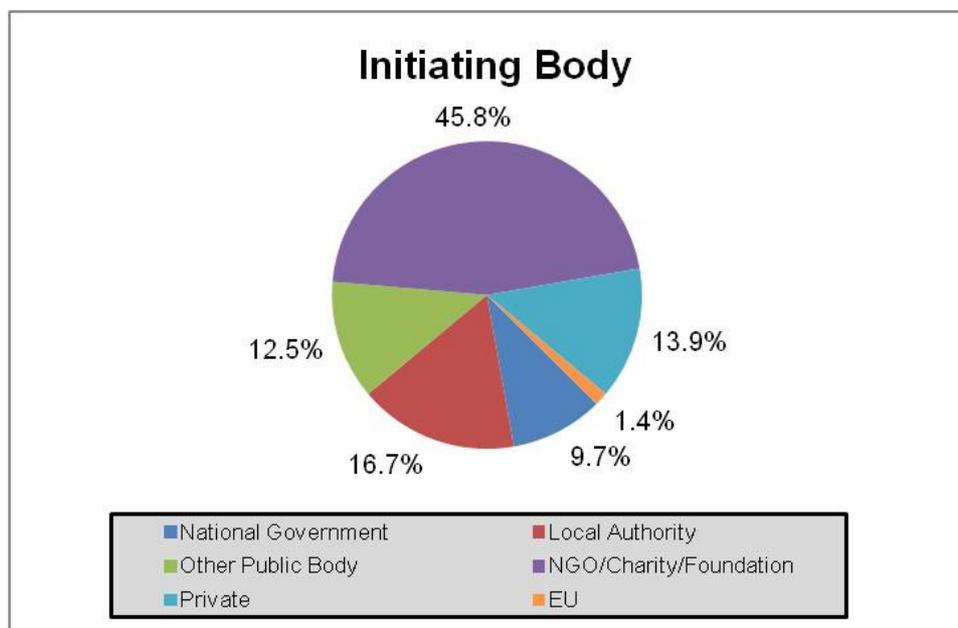


Figure 12 The adjusted percentages for the bodies initiating the 72 best practices.

3.8. The involvement of volunteers

The 72 recorded best practices represent a wide range of activities and initiatives, many of which required actions by volunteers. Specifically, 61% of the best practices (44 best practices) required the involvement of volunteers, either directly or indirectly.



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Practices that recorded Mitigation and/or Awareness as one of their themes were far more likely to involve volunteers than practices that recorded Prevention as one of their themes (Figure 13). As Figure 14 shows, most of the volunteers/voluntary actions were required by practices that were recorded as both Mitigation and Awareness (31 best practices), demonstrating the complementary nature of these two themes. Two of the best practices that involved voluntary actions were only preventive (i.e. Prevention was the only theme reported): the 'Waste minimization guide for aquaculture' in Scotland and the 'Responsible Snack Bars Project'. Awareness, being a cross-cutting theme, was recorded in all but 6 of the 44 practices that involved volunteers. Of the awareness-themed best practices involving volunteers, three had Awareness as their only theme: 'Bag It and Bin It - Don't Flush It', 'Blue Lid Campaign', and 'Trash Wall'.

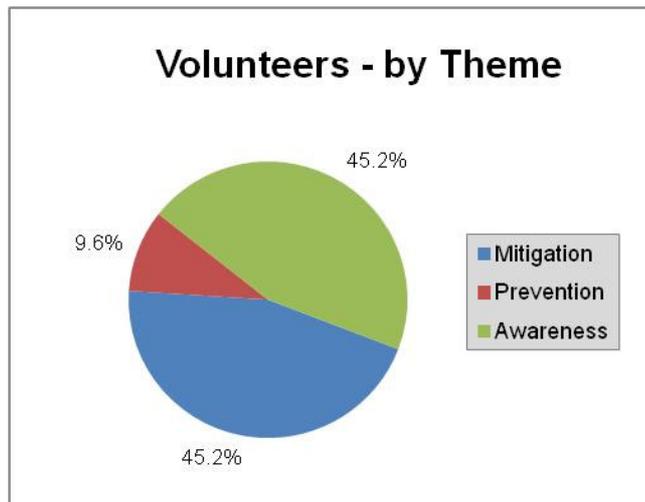


Figure 13 Percent representation of themes in the 44 practices that involved volunteers or required voluntary actions (adjusted percentages).

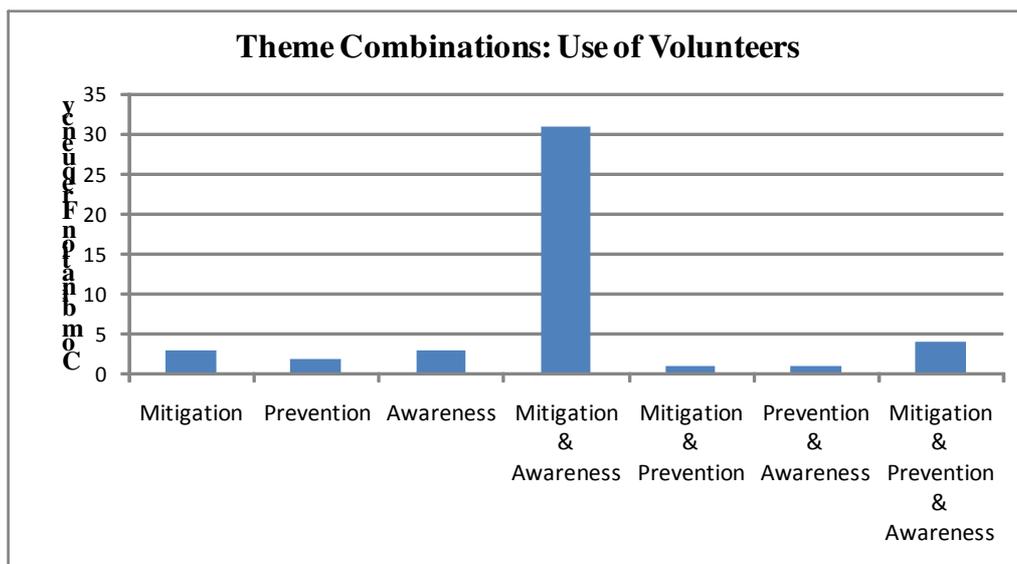


Figure 14 The frequency with which different combinations of themes were reported in practices that involved volunteers.



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3.9. Data availability

The lack of data on marine litter is an important obstacle to identifying ways of addressing this environmental problem. Although numerous cleanup activities take place around Europe every year, very few record data on the amounts and types of litter they collect. Less than half of the 72 practices recorded in MARLISCO undertook any type of data collection, and even where data were collected, this was often not done in a systematic way. Due to the small sample size and the inherent bias in the recorded best practices, it is not possible to make meaningful comparisons in data availability between the geographic regions. It should, however, be noted that in many cases, the nature of the best practices was such that there was no data to record (e.g. for awareness-raising campaigns). Nonetheless, in many cases even best practices that included cleaning campaigns failed to record any data. Systematic data collections are needed to provide the real picture of marine litter. The EU aims to address the lack of data availability through instruments such as the Marine Strategy Framework Directive.

4.



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ANALYSIS PER GEOGRAPHIC AREA: MEDITERRANEAN

The Mediterranean Sea had the second largest group of recorded best practices, as 18 best practices (25% of the total) were submitted by partners in 7 countries: Cyprus, France, Greece, Italy, Slovenia, Spain and Turkey.

4.1. Scale of implementation

Of the 18 best practices, 38.9% were implemented nationally, 50.0% sub-nationally and 11.1% regionally (Figure 15). Both of the regional best practices, 'At-sea recording of marine litter and implementation of targeted training programmes for the maritime industry' and 'Keep the Mediterranean Litter Free' Campaign' were recorded by the Greek project partner.

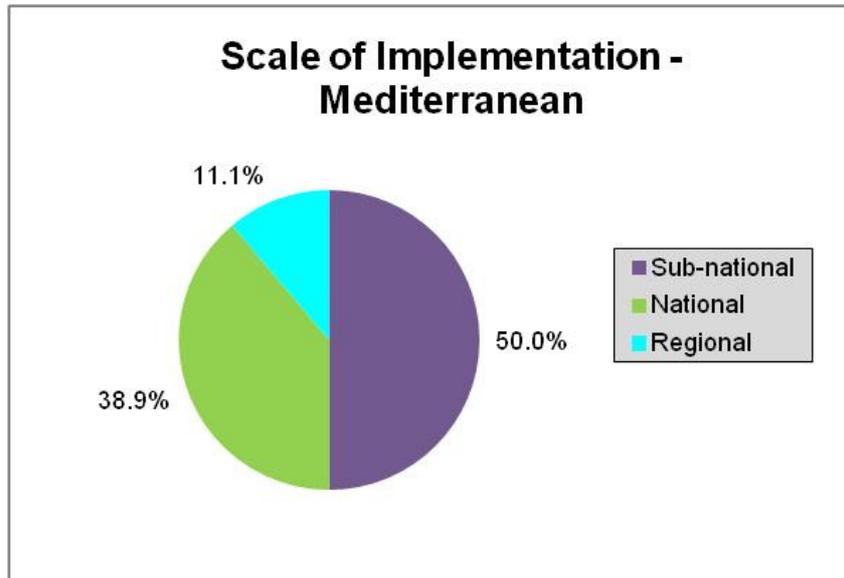


Figure 15 Percentage scale of implementation of the 18 Mediterranean best practices.

4.2. Duration

Most of the practices recorded in the Mediterranean have been active for over 5 years (50%) or from 2 to 5 years (33.3%) as shown in Figure 16. A duration of 1 to 2 years was recorded for two best practices, whereas one best practice, the 'Beach and seabed cleaning' campaign in Taggia, on the Italian Ligurian coast (see section 9.11), took place only once (a one-off).



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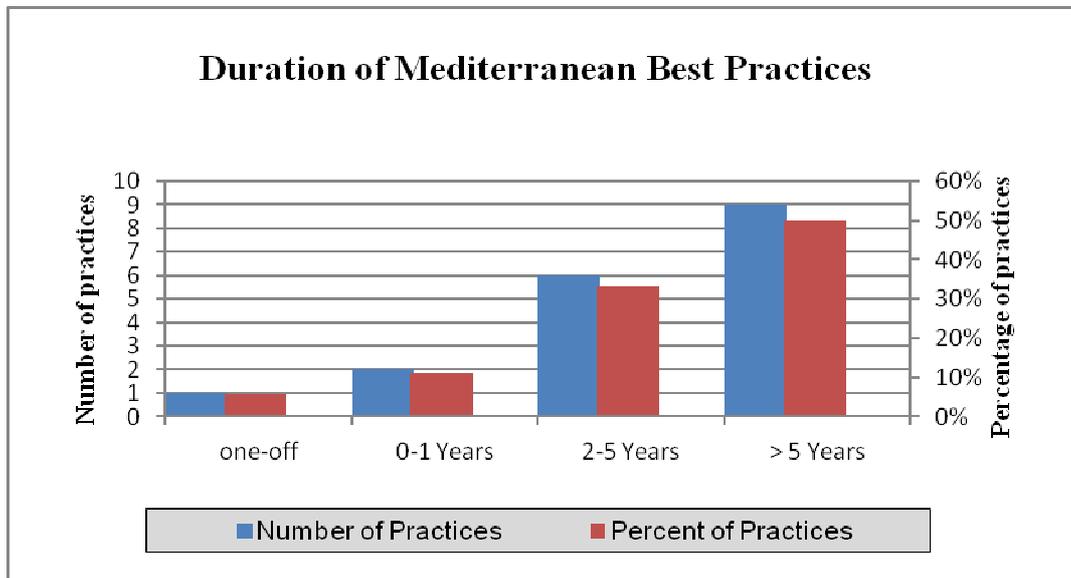


Figure 16 Duration of the 18 recorded Mediterranean best practices.

4.3. Theme

Most of the practices in the Mediterranean fell within the Mitigation (44.4%) and Awareness (33.3%) themes, with a slightly smaller percentage (22.2%) initiated for preventive reasons (Figure 17).

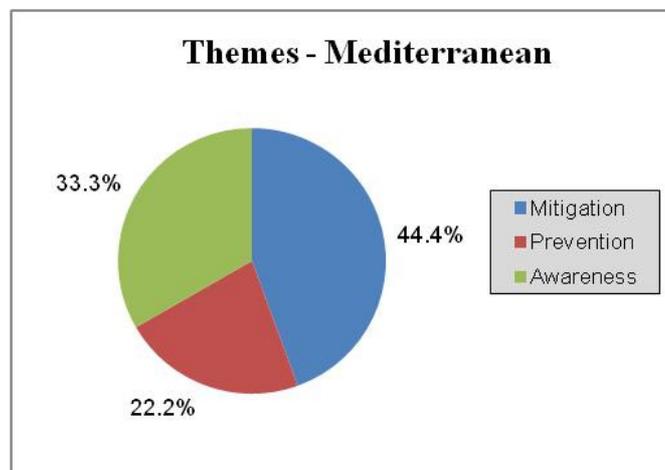


Figure 17 Theme representation in the Mediterranean best practices (adjusted percentages).

As Figure 18 shows, the most frequently reported theme combinations were Mitigation and Awareness (recorded by 10 best practices) and Mitigation, Prevention and Awareness (recorded by 3 best practices). Two best practices were initiated purely for Mitigation purposes and these were 'Municipal beach cleaning in Limassol' (Cyprus) and 'Sea surface marine litter cleaning operation' in Turkey. The three practices that were initiated purely for Prevention purposes are 'Indirect fee system for the collection of ship waste in Cyprus', 'Implementation of MARPOL Annex V in Cyprus' and 'Responsible Snack Bars project' in Spain.



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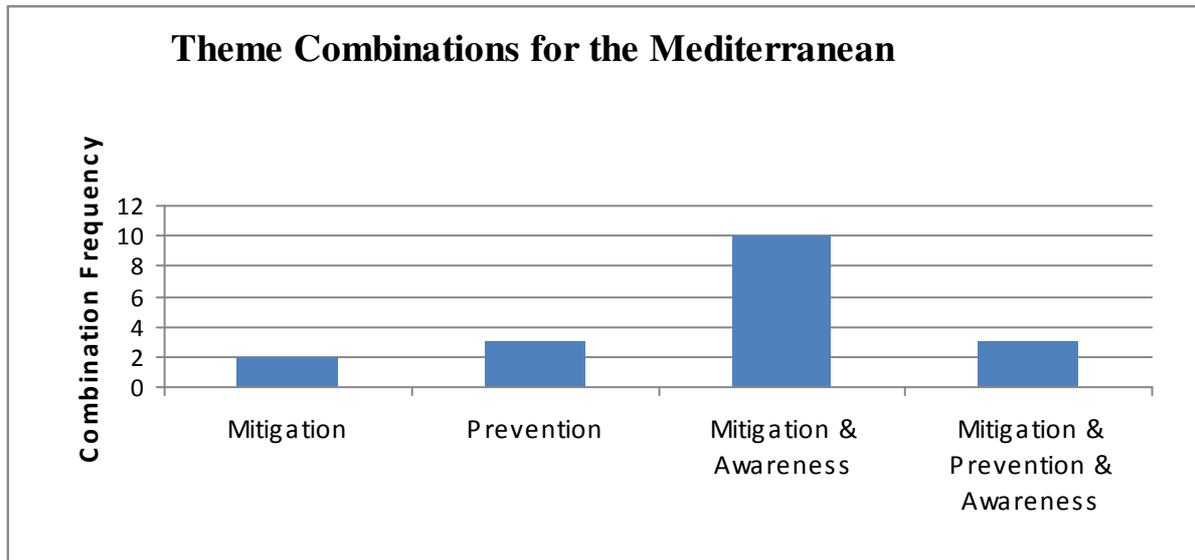


Figure 18 Combinations of themes recorded for the 18 Mediterranean best practices.

None of the recorded Mediterranean best practices was initiated simply for awareness-raising. There could be a two-fold explanation for this. As already described, mitigation and awareness-raising activities are complementary. For example, beach cleanups, particularly on popular beaches, are carried out mostly for awareness-raising purposes, but when it comes to recording such practices, the fact remains that a mitigation activity took place. Hence, the large number of best practices recorded as both Mitigation and Awareness. The other reason has to do with the pre-selection of practices by partners. It is quite possible that partners chose to record practices that required more active stakeholder involvement.

4.4. Type of initiative

Campaigns and Practice/Activity/Actions were the most frequently recorded initiatives in the Mediterranean, with 43.5% and 26.9% of the best practices, respectively, reporting that they fall within this initiative category (Figure 19). Many best practices were recorded as both Campaign and Practice/Activity/Action initiatives, and in fact, this was the most common initiative combination (Figure 20). A total of five best practices (24.1%) recorded Policy/Regulation Implementation as a reason for their implementation, and one best practice (corresponding to 5.6%) was recorded as an Economic and Market Based Instrument (namely the 'Responsible Snack Bar project' in Spain).



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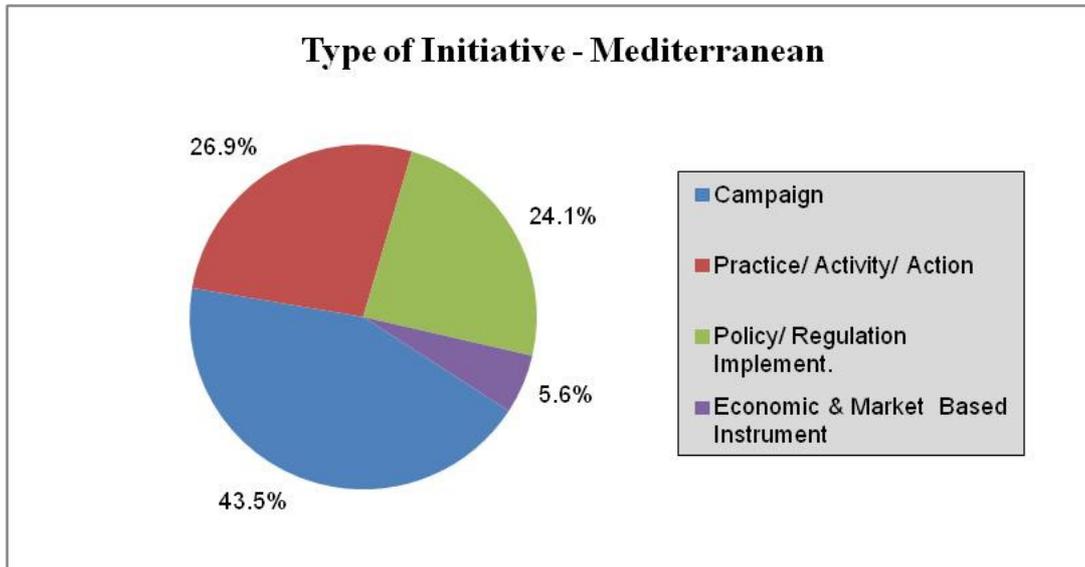


Figure 19 The type of initiatives recorded in the Mediterranean best practices (adjusted percentages).

Of the five Policy/Regulation Implementation best practices, three regard policies/regulations implemented at the national level: 'Assessment of marine litter pollution of Slovenian coasts', 'Indirect fee system for the collection of ship waste in Cyprus' and 'Implementation of MARPOL Annex V in Cyprus'. The other two are implemented at the sub-national level and are the 'Municipal beach cleaning in Limassol' (Cyprus) and the 'Programme of coordinated management of Marine debris on the shore of Marseille Provence Metropolis Urban Community' (France).

Additionally, the 'Keep the Mediterranean Litter free campaign' promoted the implementation of relevant regional and national legislation, including national legislation on waste management and environmental protection, and the Barcelona Convention and its Protocols.

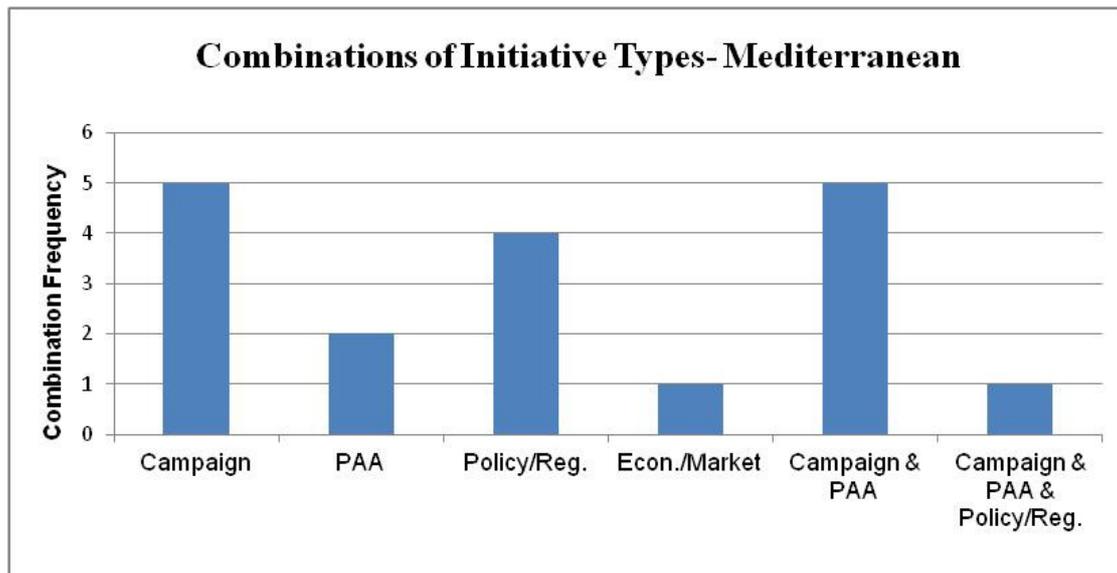


Figure 20 Combinations of initiative types recorded for the Mediterranean best practices.



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4.5. Financial support

All but one of the best practices from the Mediterranean, namely the *'STH Harem Beach cleaning, rehabilitation and conservation project'* in Turkey, had received external financial support. As Figure 21 shows, more than half were supported by public funding, either from a local authority (23.5%), a national government (35.3%) or other public funds (2.9%). Three best practices (13.6%) received funds from the EU, specifically from the European Regional Development Fund. These three best practices, *'Beach Cleaning "Mare Pulito"*, *'Seabed cleaning – collection and disposal of litter at depths greater than 50m'* and *'Seabed cleaning – collection and disposal of litter at depths up to 50m'*, took place in Italy as part of project GIONHA (Governance and Integrated Observation of Marine Natural Habitat). The private sector funded 11.8% of the recorded Mediterranean best practices, namely *'Beach and seabed cleaning'* in Italy and *'Seabed cleaning in Cyprus'*.

Of the six Mediterranean best practices that were funded by a national government, three are of a purely preventive nature (*'Indirect fee system for the collection of ship waste in Cyprus'*, *'Implementation of MARPOL Annex V in Cyprus'*, and the *'Responsible Snack Bar Project'* in Spain). Interestingly, all six of the nationally funded best practices are also nationally implemented: *'Sea cleaning vessel "Battello Spazzamare"'* in Italy, *'Assessment of marine litter pollution of Slovenian coasts'*, *'Indirect fee system for the collection of ship waste in Cyprus'*, *'Implementation of MARPOL Annex V in Cyprus'*, *'System of cleaning of the coast in Slovenia'* and the *'Responsible Snack Bar Project'* in Spain.

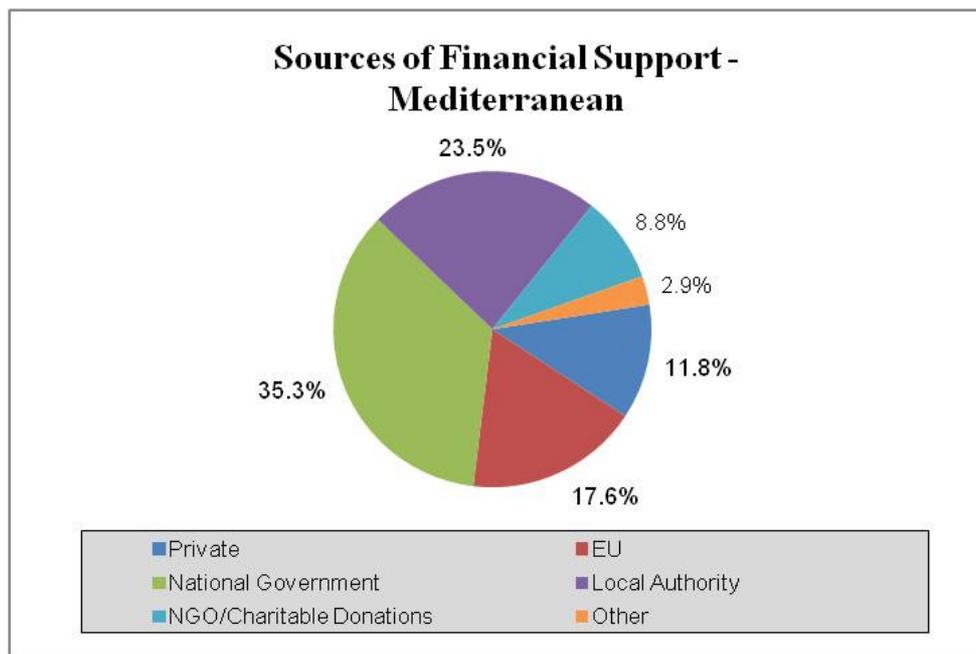


Figure 21 Sources of financial support for the Mediterranean best practices (adjusted percentages).

An 'Other' source of funding was recorded for one best practice (Figure 22). This refers to UNEP/MAP MEDPOL funding for *'Keep the Mediterranean Litter Free Campaign'*. Most (about 94%) of the Mediterranean best practices that received external funds received funding from only one source.



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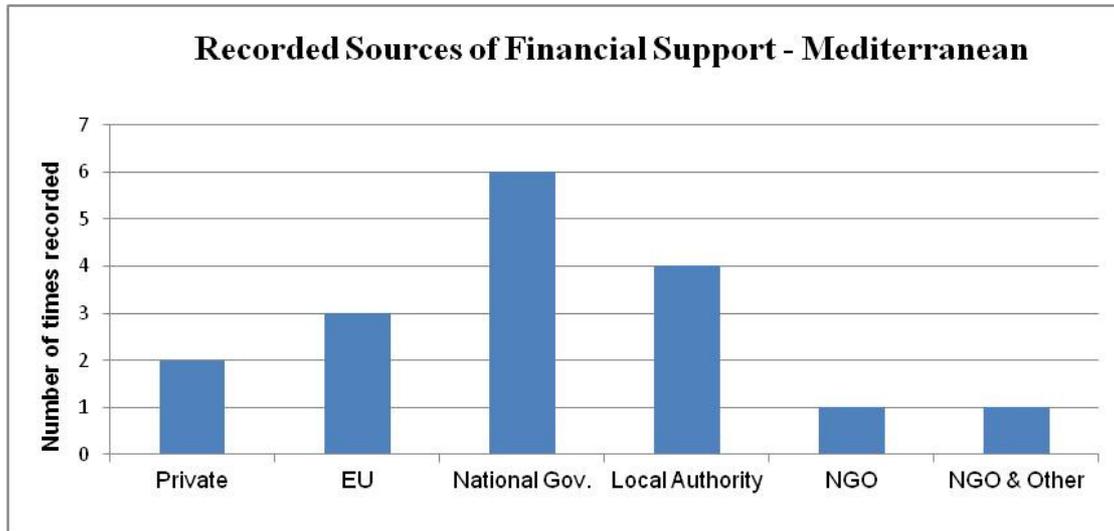


Figure 22 Frequency of the recorded sources of financial support for the Mediterranean.

4.6. Initiating Body

Most of the Mediterranean best practices were initiated by just one body/organisation whereas two best practices were jointly initiated by two bodies (Figure 23). NGOs/Charities/Foundations initiated 36.1% of the Mediterranean best practices, with national governments (25.0%), local authorities (11.1%) and other public bodies (27.8%) initiating the rest (Figure 24).

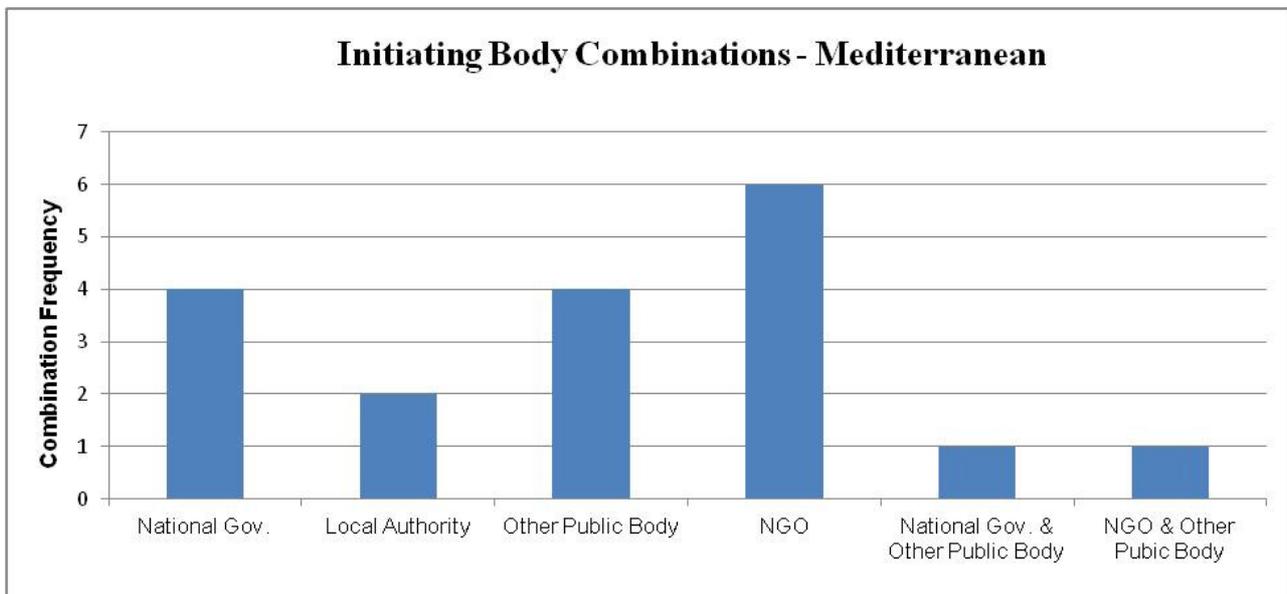


Figure 23 Initiating bodies of the 18 Mediterranean best practices.

There were seven nationally implemented best practices in the Mediterranean and six of them were initiated by a national government and/or another public body in the country of their implementation. The only Mediterranean nationally implemented best practice that was not initiated by a public body is the 'Seabed cleaning in Cyprus' initiated by the NGO CYMEPA (see section 9.11). The practices initiated by a national government were also funded by that national government, whereas those practices initiated by a local authority were funded by a local authority.



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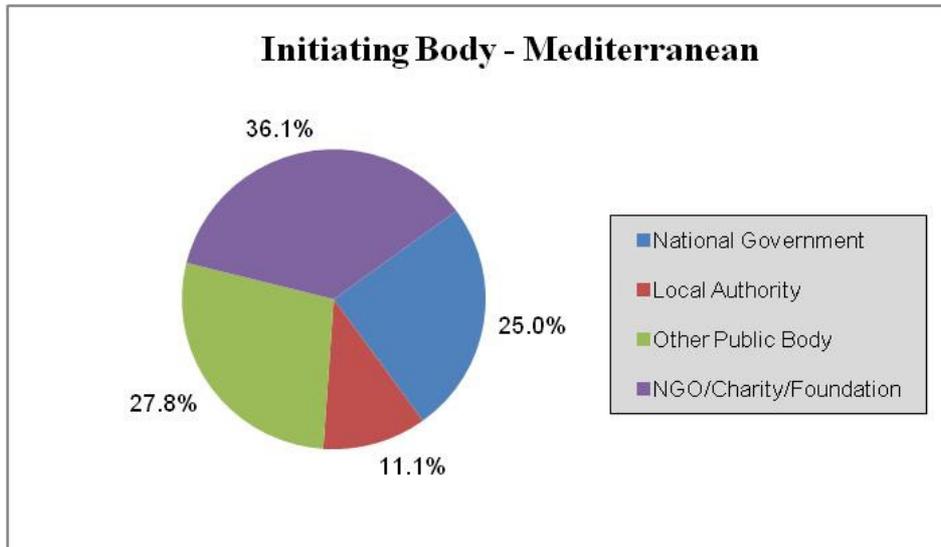


Figure 24 Percent representation (adjusted) of the bodies initiating the Mediterranean best practices.

4.7. The involvement of volunteers

Ten of the 18 recorded Mediterranean best practices involved volunteers or required some voluntary action from the public. Of the 8 Mediterranean best practices that did not require the involvement of volunteers, 7 were supported by public funds (either from a national government or a local authority).

4.8. Data availability

Slightly over 60% of the Mediterranean best practices reported that they collected data relating to marine litter amounts (Figure 25), including two best practices, the 'Indirect fee system for the collection of ship waste in Cyprus' and the 'Municipal beach cleaning in Limassol' (Cyprus), that reported estimates rather than actual data. Of the seven best practices that did not collect any data, four involved cleaning of a beach, seabed or sea surface and therefore provided the possibility for data collection.

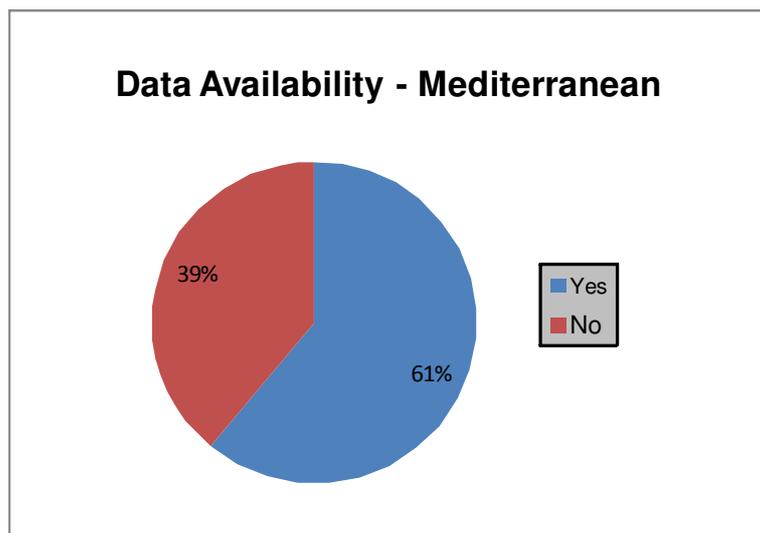


Figure 25 Percentage of Mediterranean practices that collected and recorded data.

5.



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ANALYSIS PER GEOGRAPHIC AREA: NORTH EAST ATLANTIC

A total of 36 best practices were recorded for the North East Atlantic from Denmark, France, the UK, Ireland, the Netherlands and Portugal. This was the largest number of best practices recorded in a specific region.

5.1. Scale of implementation

There was only one Regional best practice recorded in the North East Atlantic, the 'Marine safety awareness courses' implemented in the North Sea and described in section 9.1. Most of the best practices (58.3%) recorded in the North East Atlantic were sub-nationally implemented and a large proportion (38.9%) was nationally implemented (Figure 26).

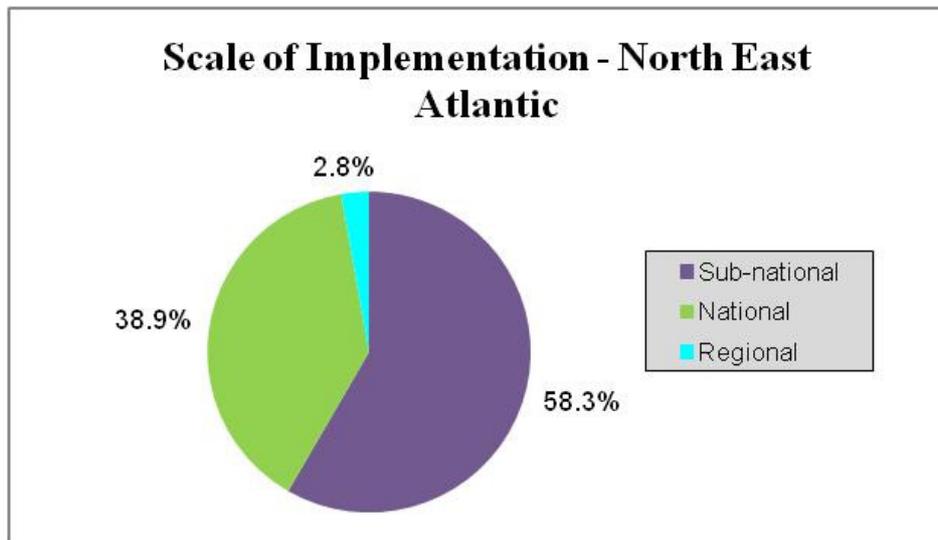


Figure 26 Scale of implementation for the North East Atlantic practices.

The largest portion of the North East Atlantic best practices came from Portugal (19 best practices representing 52.8%). Of these practices, 7 are nationally implemented and 12 are implemented on a sub-national scale. Within the Portuguese nationally implemented best practices, 3 represent national applications of European and/or Global programmes, namely the Blue Flag Programme, the Coastwatch Campaigns and the Ocean Initiative. These and other similar best practices are described in section 9.2.

5.2. Duration

Most of the best practices recorded for the North East Atlantic, were well-established with durations either between 2 and 5 years (33.3%) or over 5 years (63.9%). Only one best practice, representing 2.8%, had duration between 1 and 2 years (Figure 27).



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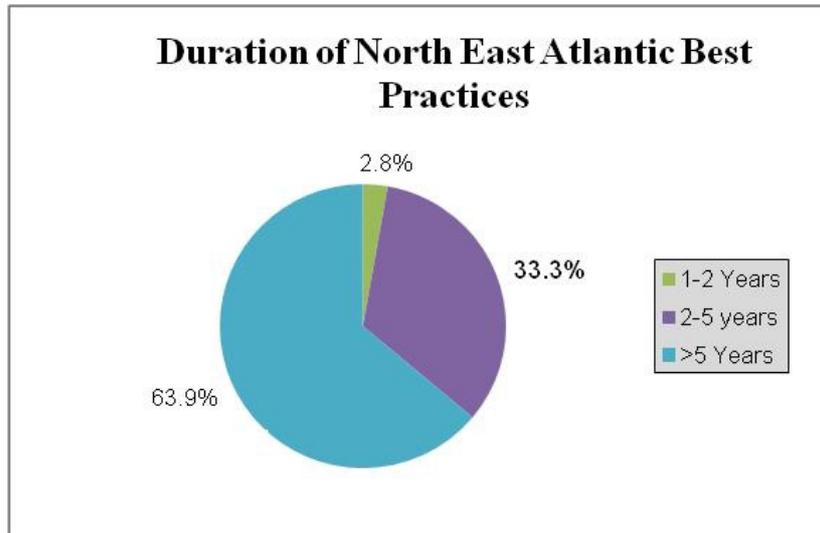


Figure 27 Duration of the 36 recorded best practices of the North East Atlantic.

5.3. Theme

All three themes were almost equally represented in the North East Atlantic, with Mitigation taking the slight lead with 38.4% representation, followed closely by Awareness with 34.3% and finally by Prevention with 27.3% (Figure 28).

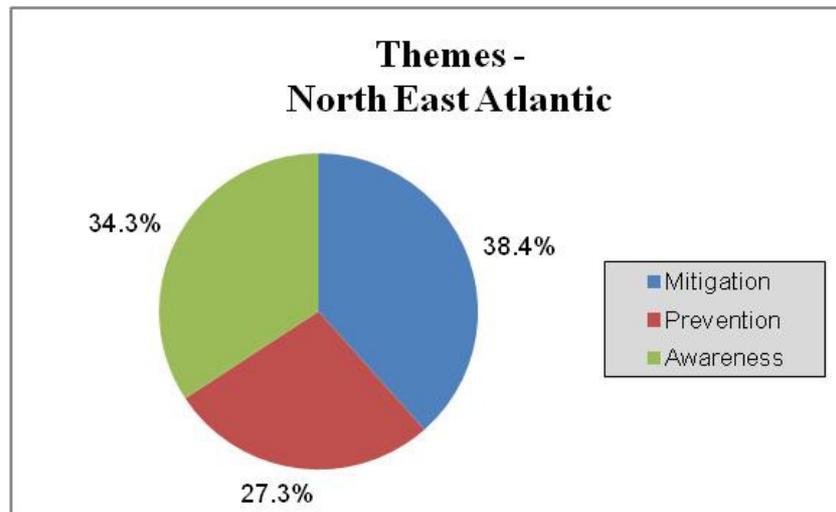


Figure 28 Percent representation of themes in the North East Atlantic best practices.

Most of the best practices fell under more than one theme, but of those practices that fell within only one theme 5 were preventive, 4 were mitigative and 2 were implemented for awareness-raising purposes. The two awareness-raising best practices were the 'Bag it and Bin it - Don't Flush It' campaign in the UK and the 'Campaign to reduce the distribution of free plastic bags' implemented in Portugal, both described in section 9.15. The recorded combination of themes shows that, once again, Mitigation & Awareness was by far the most frequent combination, followed by Mitigation, Prevention & Awareness (Figure 29).

It is worth noting that all 3 best practices recorded by MARLISCO dealing with the issue of plastic bags come from the North East Atlantic (see section 9.13).



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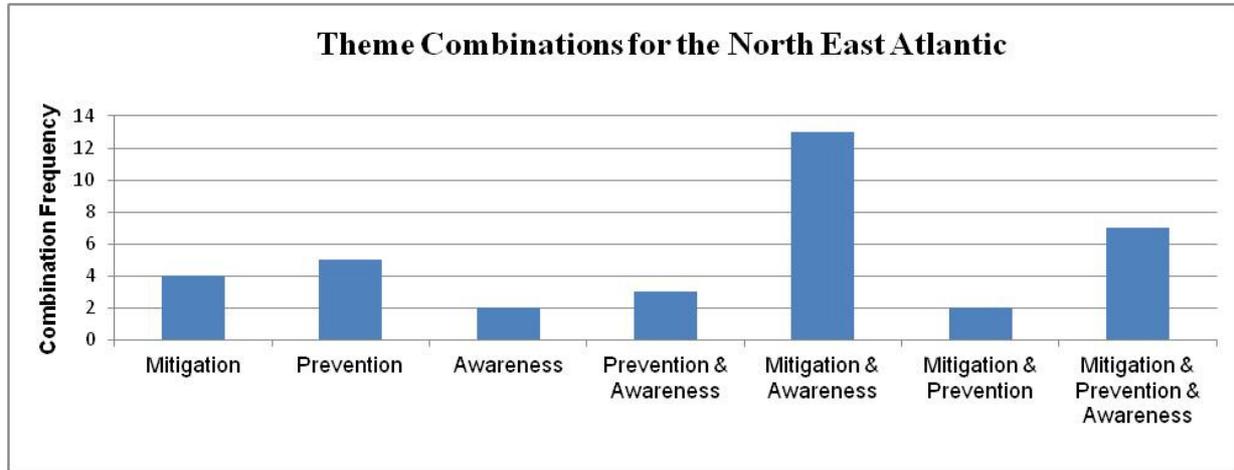


Figure 29 Theme combinations for the North East Atlantic best practices.

5.4. Type of initiative

Practice/Activity/Action initiatives had the greatest representation in the North East Atlantic with 55.6% followed by Campaign initiatives with 27.8% (Figure 30).

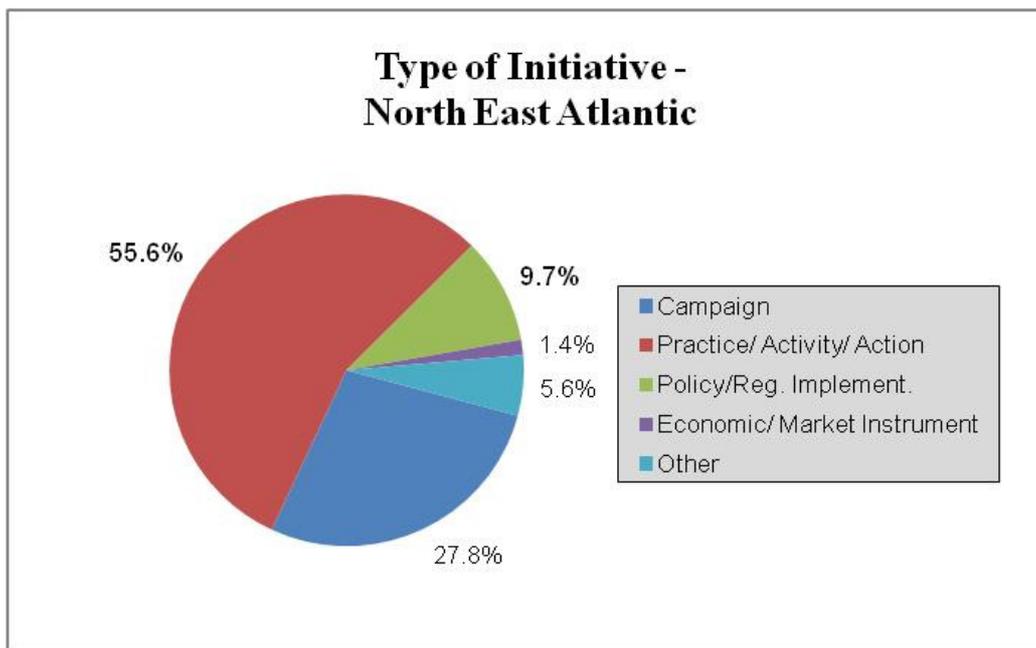


Figure 30 Representation of initiative types in the North East Atlantic (adjusted percentages).

Two policy/regulation implementation initiatives ('The Plastic Bag Levy' and 'Regulation of port reception facilities for ship-generated waste'), 1 economic and market based instrument ('The Plastic Bag Levy') and three 'other' best practices were recorded (Figure 31). The 'Other' best practice examples were the 2 educational best practices 'Devon waste education programme' and 'Return to Offender campaign' and the guidance best practice 'Waste minimisation guide for aquaculture'. Relatively few combinations of initiative types were recorded, as most of the practices fell purely under the Practice/Activity/Action category or the Campaign category (Figure 32).



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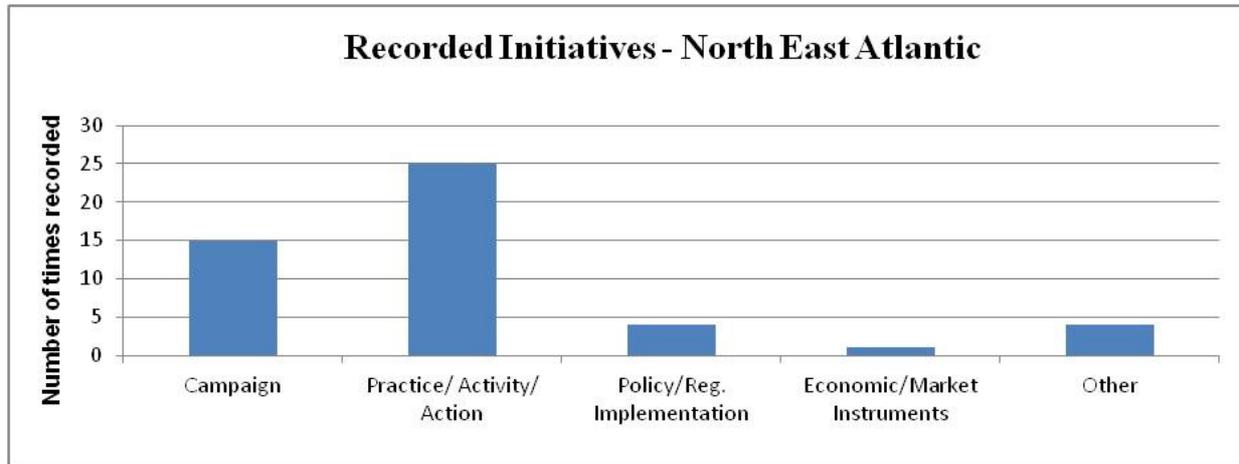


Figure 31 Frequency of recorded initiatives in the North East Atlantic best practices.

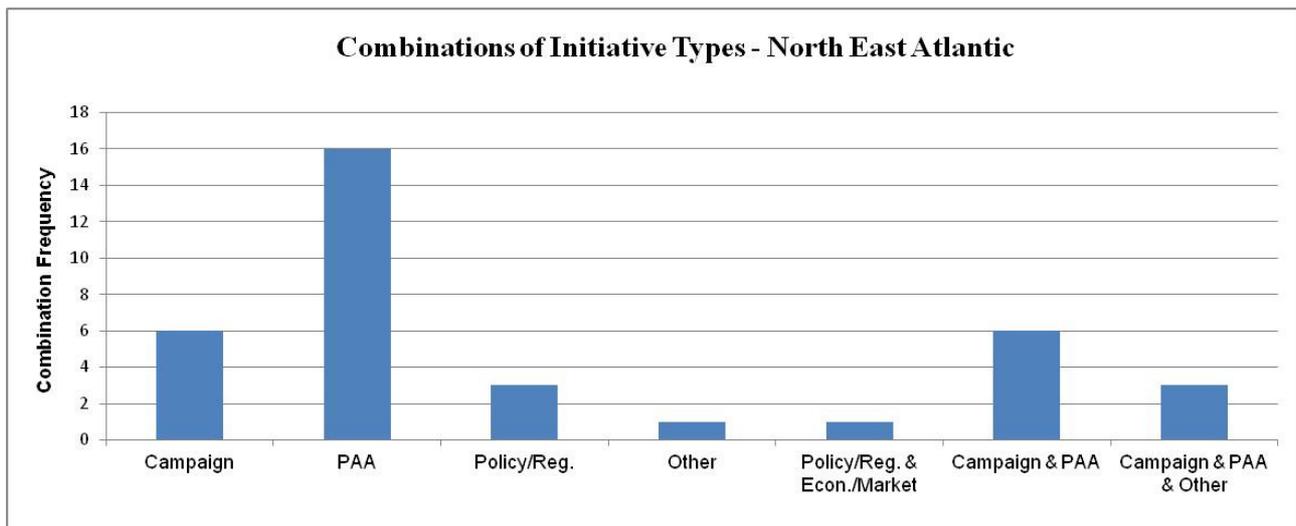


Figure 32 Combinations of initiative types for the practices of the North East Atlantic.

5.5. Financial support

Most of the best practices reported for the North East Atlantic (75%) received external financial support, with only nine being implemented without external financing (either because they were self-funded or because they depended on in-kind contributions and voluntary actions). Of the 27 externally funded best practices, more than half (61.5%) received funding from the public sector, either from the national government, a local authority or other public funds (Figure 33). The EU funded or co-funded two of the North East Atlantic best practices and NGOs/Charitable Donations contributed funds to two more (Figure 34). One best practice recorded in the North East Atlantic, the 'Bag it and Bin it campaign', received external funds, but it was not possible to identify the exact source, since the practice dates back to 1995 and such records are not readily available.



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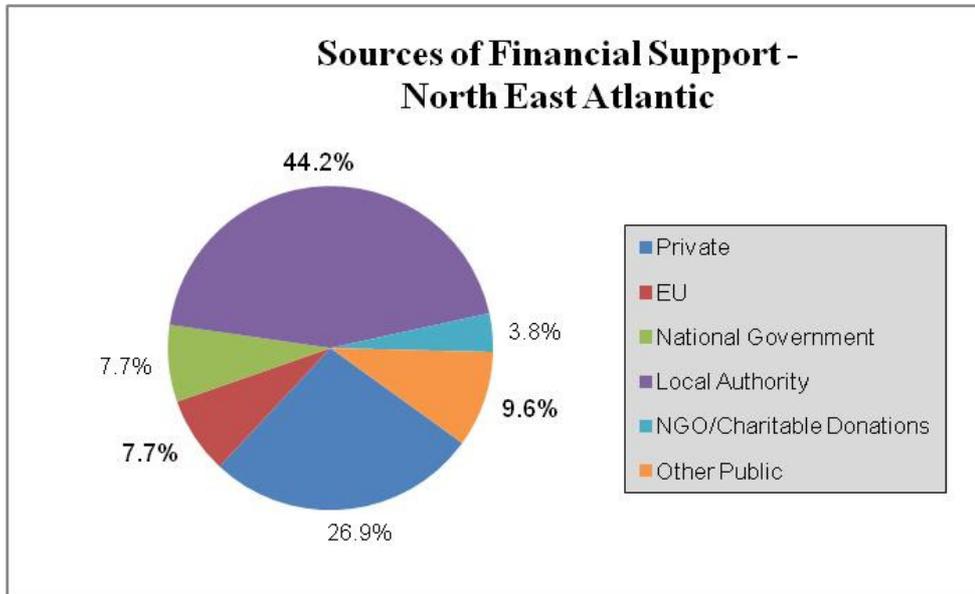


Figure 33 Sources of financial support for the North East Atlantic best practices (adjusted percentages).

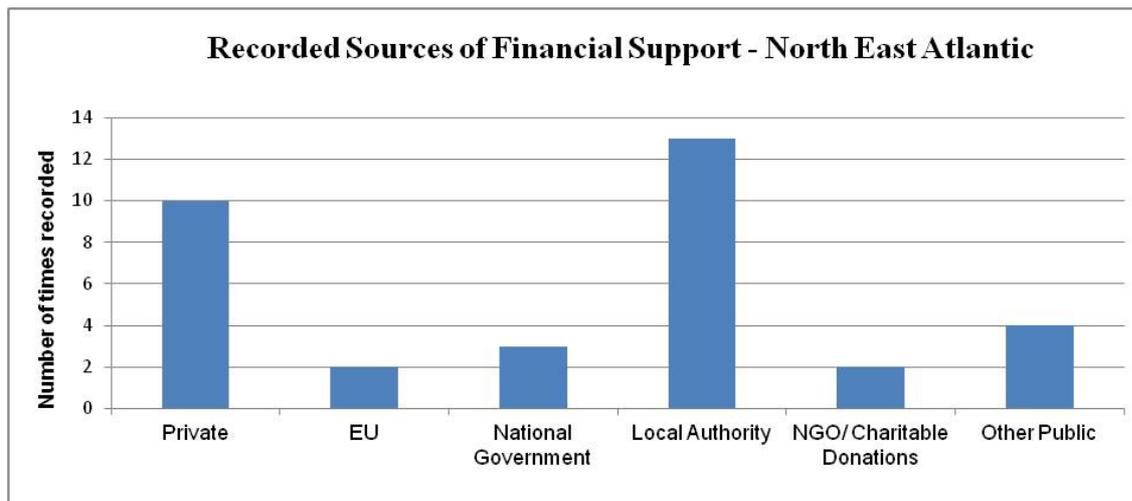


Figure 34 Frequency of sources of financial support recorded in the North East Atlantic practices.

Some differences in funding sources can be noted when looking at the best practices that were implemented on a national scale and those implemented sub-nationally separately. The general trend is that the national government is an important contributor of funds for nationally implemented best practices, whereas local authorities provided financial support to most of the sub-nationally i.e. locally implemented best practices.

5.6. Initiating Body

Most of the best practices in the North East Atlantic were initiated by only one body or organisation, although five best practices were jointly initiated by two entities, one of which was a public body (Figure 35). NGOs/ Charities/ Foundations were responsible for initiating the largest number of best practices (41.9%), although local authorities and the private sector also initiated important percentages (Figure 36). National governments and other public bodies only initiated a relatively small percentage of the recorded North East Atlantic practices (about 13.5%)



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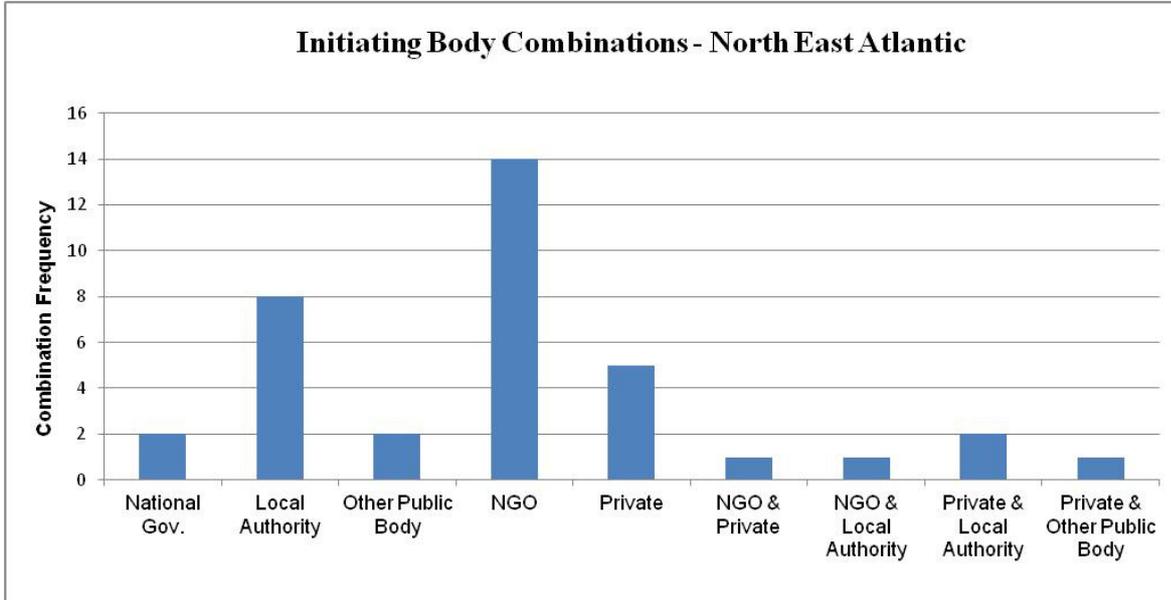


Figure 35 Bodies/organisations initiating the 36 best practices recorded in the North East Atlantic.

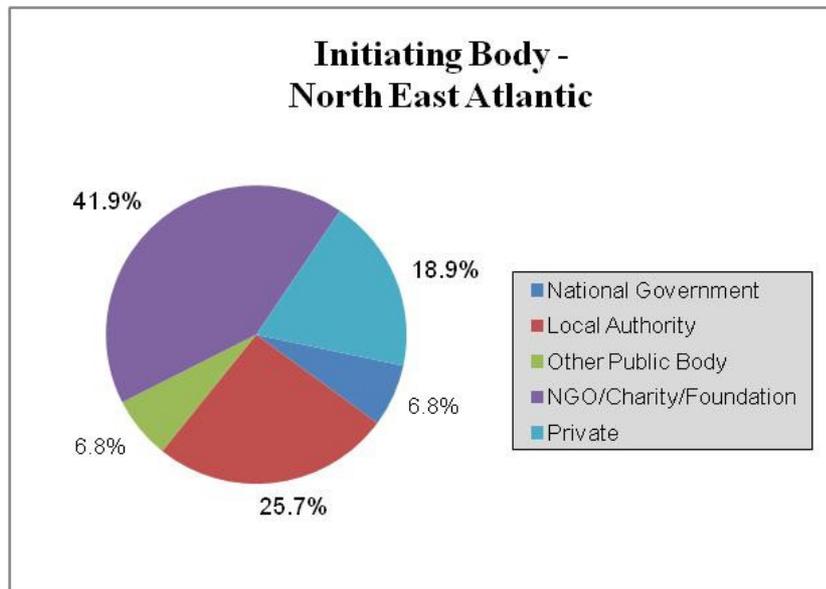


Figure 36 Representation of the bodies initiating the North East Atlantic best practices (adjusted percentages).

Most of the nationally-implemented practices in the North East Atlantic were initiated by NGOs/Charities/Foundations (Figure 37). Sub-nationally implemented practices were mainly initiated by local authorities and NGOs/charities/foundations (Figure 38). The reader should note that this analysis does not include the regionally implemented best practice 'Marine safety awareness courses'.



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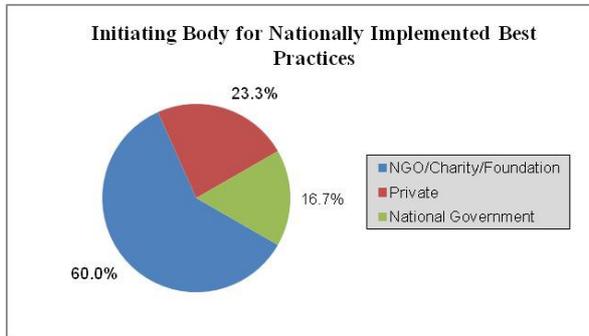


Figure 37 Initiating bodies of the nationally implemented best practices in the North East Atlantic (adjusted percentages)

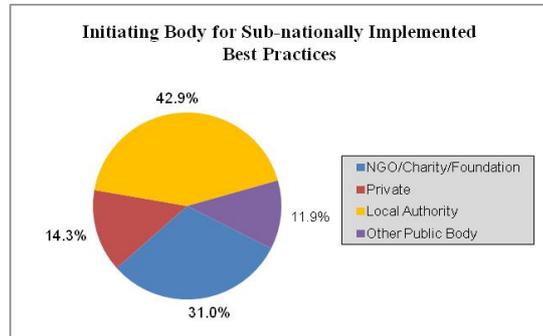


Figure 38 Initiating bodies of the sub-nationally implemented best practices in the North East Atlantic (adjusted percentages).

5.7. The involvement of volunteers

Volunteers were involved or voluntary action was required by 61.1% of the best practices recorded in the North East Atlantic. Within these practices there was a mixture of durations, themes and initiatives making the derivation of any correlations and conclusions quite difficult. The 14 practices that did not require the involvement of volunteers included the two policy/regulation implementation practices and two campaigns.

5.8. Data availability

Less than half (44.4%) of the North East Atlantic best practices recorded data on the amount of litter collected or prevented from entering the marine environment. It is difficult to make any correlations between the types of best practices and the collection (or not) of data. It might be worth noting that a number of best practices that could have involved data capture failed to do so. This exemplifies the fact that there is a strong need to reinforce the message that data collection is paramount to solving the marine litter problem.

6.



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ANALYSIS PER GEOGRAPHIC AREA: BLACK SEA

The MARLISCO consortium recorded eight best practices from the Black Sea: 2 from Romania, 5 from Bulgaria and 1 from Turkey.

6.1. Scale of implementation

Seventy-five percent of the practices recorded in the Black Sea region were implemented sub-nationally, whereas the remaining 25% (i.e. 2 best practices) were implemented on a national scale (Figure 39). The nationally implemented best practices are 'Let's Do It! Romania' and the 'Blue Lid Campaign' (in Turkey).

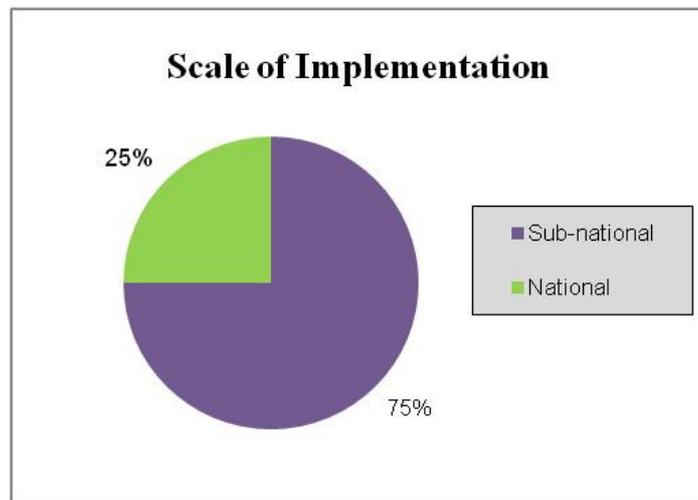


Figure 39 Scale of implementation of the best practices recorded for the Black Sea.

6.2. Duration

Although a small number of practices have been recorded for the Black Sea there is a wide range of durations (Figure 40). The one-offs, i.e. practices carried out only once, represent 37.5% and are: 'School activities to reduce waste in the Black Sea' described in section 9.16 together with other best practices involving schools, and 'Port seabed cleanup by divers at Kiten' and 'Nessebar municipality seabed cleanup' both dealing with marine litter found on the seabed and described in section 9.11. Interestingly, all three of the one-off practices were recorded in Bulgaria.

Of the remaining best practices, 12.5% lasted between 1 and 2 years, 12.5% between 2 and 5 years and the remaining 37.5% for more than 5 years.



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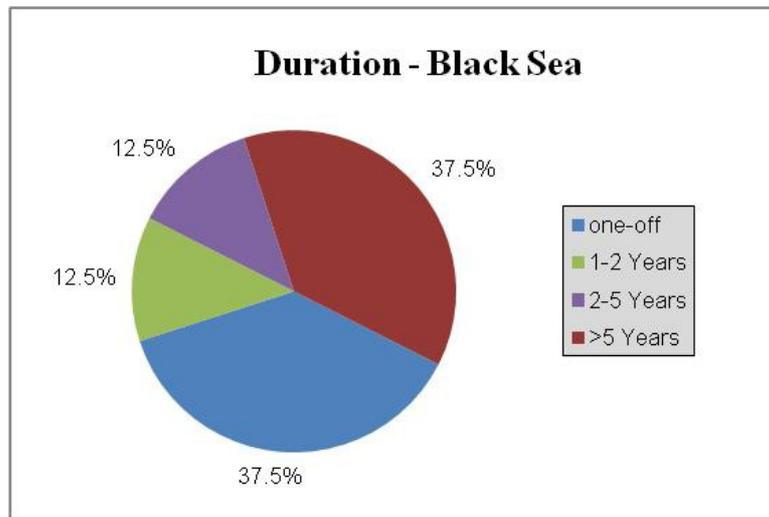


Figure 40 Duration of the best practices recorded in the Black Sea.

6.3. Theme

None of the 8 best practices submitted for the Black Sea had Prevention as one of their themes, whereas Mitigation and Awareness were equally represented (Figure 41). Most of the best practices reported both Mitigation and Awareness as themes. The two exceptions were 'Port seabed cleanup by divers at Kiten' (Bulgaria) that reported only Mitigation and the 'Blue Lid Campaign' (Turkey) whose main theme was Awareness (Figure 42).

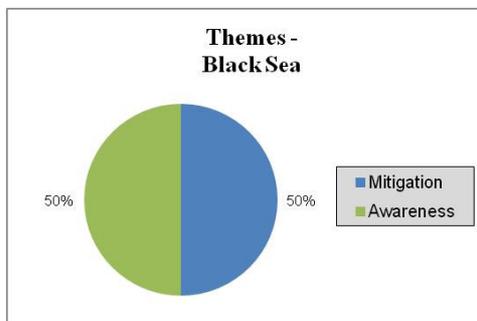


Figure 41 Representation of themes in the Black Sea best practices (adjusted percentages).

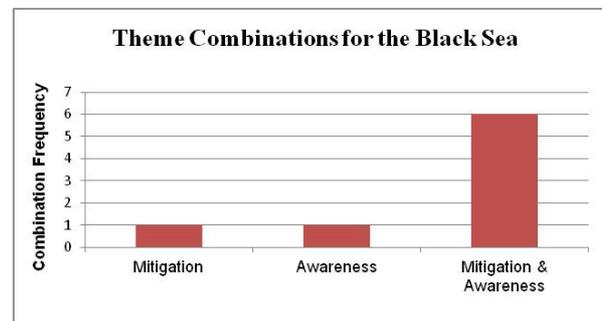


Figure 42 Theme combinations for the Black Sea best practices.

6.4. Type of initiative

All of the Black Sea practices were recorded as both campaigns and Practice/Activity/Action initiatives, therefore these two types of initiatives were equally represented (50% each).

6.5. Financial support

Financial support from external sources was only given to three of the eight Black Sea practices, and all external funding came from the public sector: 33.3% from the national government of the country of implementation and 66.7% from a local authority (Figure 43). All three of these publicly funded best practices were recorded in Bulgaria and involve activities taking place at schools (see section 9.16): 'Improving the ecological status of the Black Sea waters at the shores of Pomorie' funded by the BSERP National Grant Programme, and the 'My Black Sea' Campaign in Burgas' and 'School activities to reduce waste in the Black Sea' funded by Burgas Municipality.



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With the exception of the 'Blue Lid Campaign', the practices that did not receive any external funding involved beach or seabed cleanups. It is possible that these non-externally funded practices depended on in-kind contributions and voluntary actions by the initiating body/organisation and the general public.

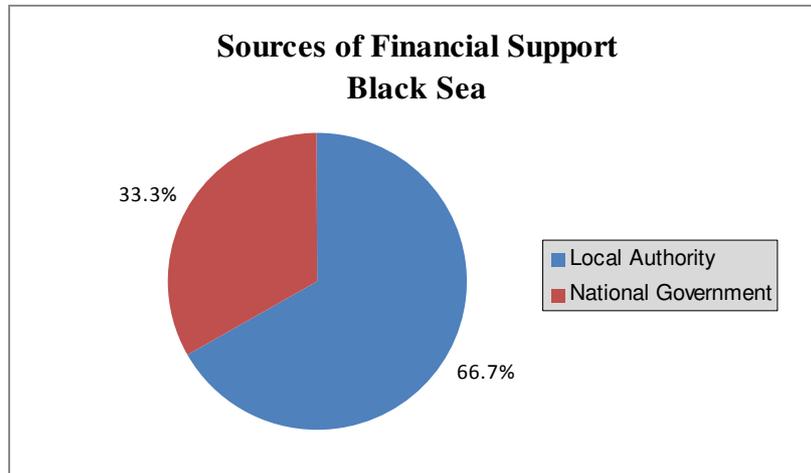


Figure 43 Sources of financial support for the practices of the Black Sea.

6.6. Initiating body

Seven of the eight best practices recorded in the Black Sea were initiated by only one body/organisation, whereas one best practice, the 'Blue Lid Campaign' was jointly initiated by an NGO and a public body (Figure 44). NGOs/Charities/Foundations initiated 56.3% of the recorded Black Sea best practices, local authorities and the private sector initiated 12.5% each and other public bodies initiated 18.8% (Figure 45). 'School activities to reduce waste in the Black Sea' was the best practice that was initiated by another public body (in this case the Miladinov School), 'Nessebar port seabed cleaning' was initiated by the Nessebar local authority, and the 'Port seabed cleanups by divers at Kiten' was initiated by Tehnikal Diving Bulgaria (a private company).

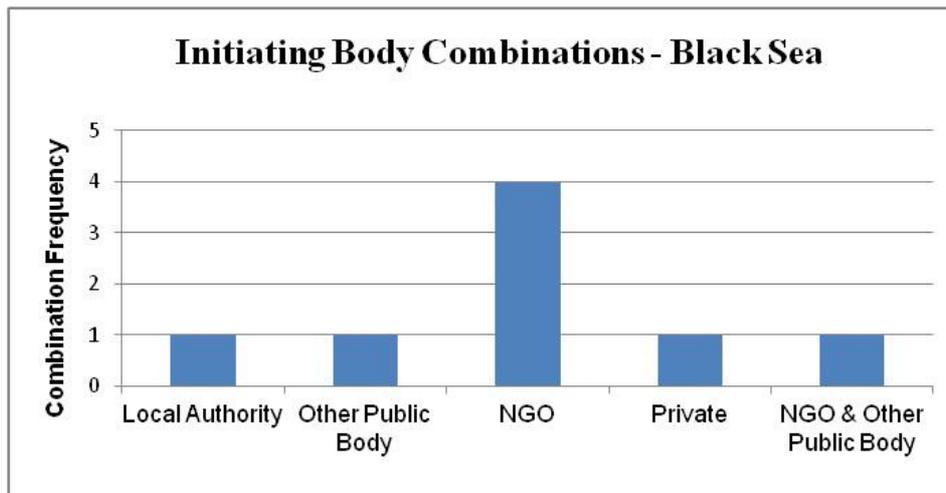


Figure 44 Bodies initiating the eight best practices recorded in the Black Sea.



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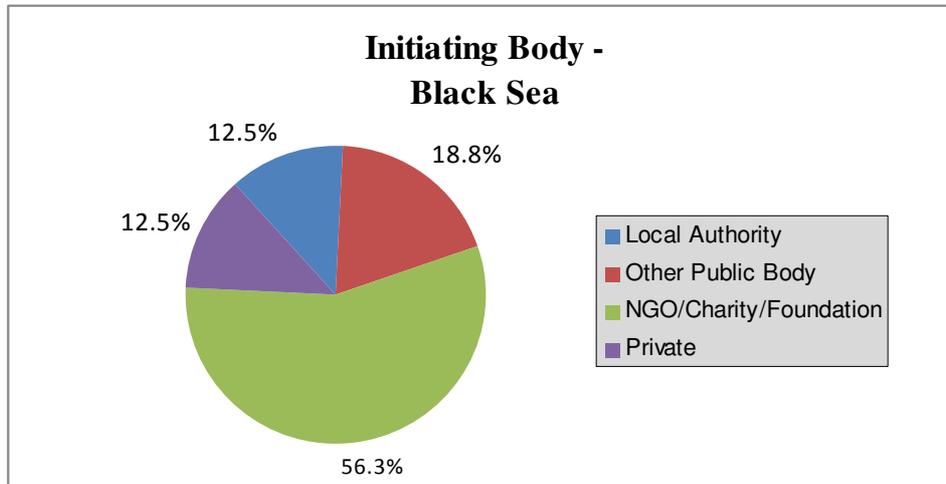


Figure 45 Representation of the bodies initiating the Black Sea best practices (adjusted percentages).

6.7. The involvement of volunteers and data availability

All of the Black Sea best practices required the involvement of volunteers. Although most of the best practices included some type of cleanup (either beach or seabed), a relatively small percentage collected data (Figure 46).

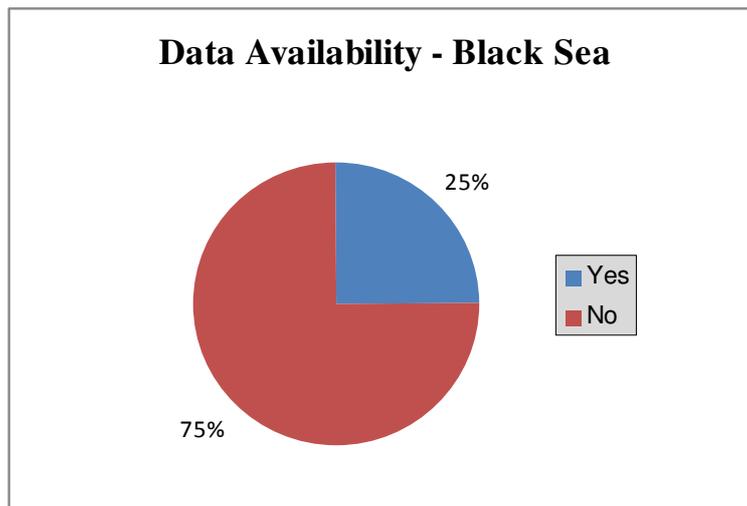


Figure 46 Data availability for the Black Sea best practices.

7.



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ANALYSIS PER GEOGRAPHIC AREA: BALTIC

Only 4 best practices have been recorded for the Baltic: 2 from Denmark, '*Separation and recycling of materials from fishing trawl and nets*' and '*Clean beach campaigns*', and 2 from Germany, '*Cleanup of a beach near Rostock harbour*' and '*Fishing for litter in Germany*'.

7.1. Scale of implementation

The 2 best practices that have been submitted for Denmark are being implemented on a national scale, whereas the best practices from Germany are sub-nationally implemented, in Rostock and in the German Baltic Sea (Figure 47).

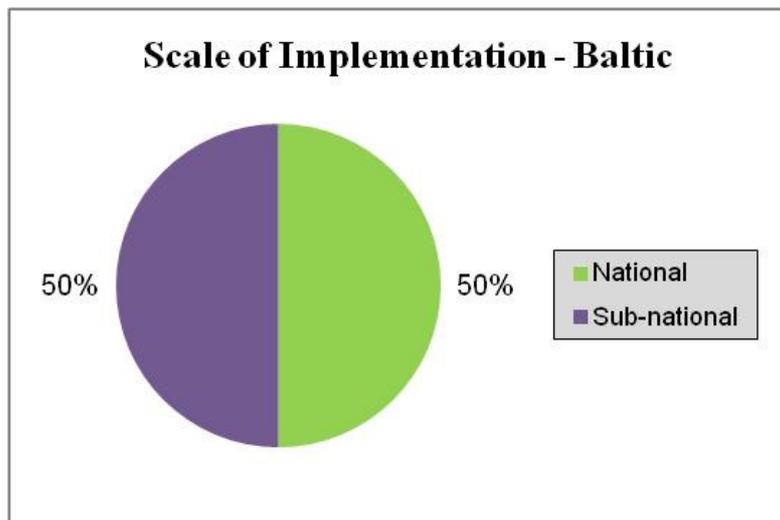


Figure 47 Scale of implementation of the Baltic best practices.

7.2. Duration

A range of initiative durations was recorded in the Baltic (Figure 48). '*Cleanup of a beach near Rostock harbour*' was a one-off initiative whereas the '*Separation and recycling of materials from fishing trawl and nets*', which commenced in November 2012, is estimated to have a duration of over 5 years. The '*Clean beach campaigns*' in Denmark took place in the summers of 2011 and 2012 and are expected to be repeated in 2013. Therefore, their duration has been reported as 2-5 years. Finally, '*Fishing for litter in Germany*', which commenced in May 2011, also has a duration between 2 and 5 years.



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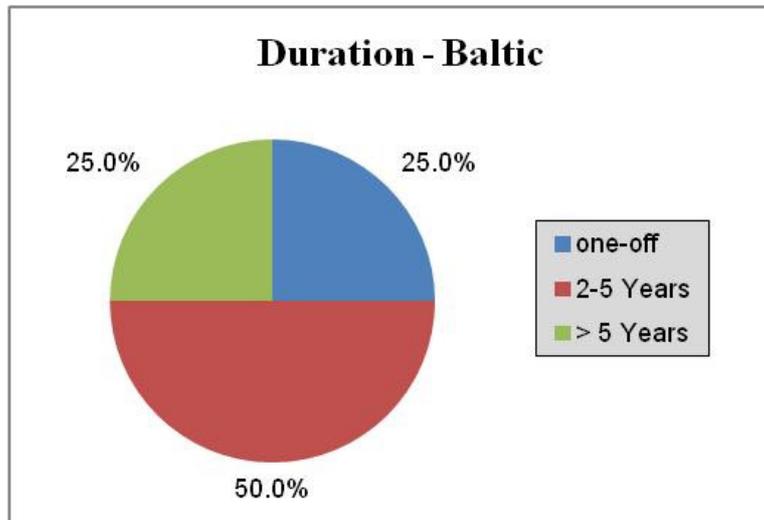


Figure 48 The duration of the best practices recorded in the Baltic.

7.3. Theme

The combinations of themes recorded for each of the Baltic best practices appear in Table 3. Specifically, 'Cleanup of the beach near Rostock harbour' reported Mitigation and Awareness as its two themes, as did 'Fishing for litter in Germany'. 'Clean beach campaigns' had Awareness as its only theme, and 'Separation and recycling of materials from fishing trawl and nets' had Mitigation and Prevention as its two themes. Therefore, overall, the most represented theme in the Baltic was Awareness at 50% followed by Mitigation at 37.3% and Prevention at 12.5% (Figure 49).

Table 3 Theme combination frequencies for the Baltic best practices.

Combinations	Frequency
Awareness	1
Prevention & Mitigation	1
Mitigation & Awareness	2

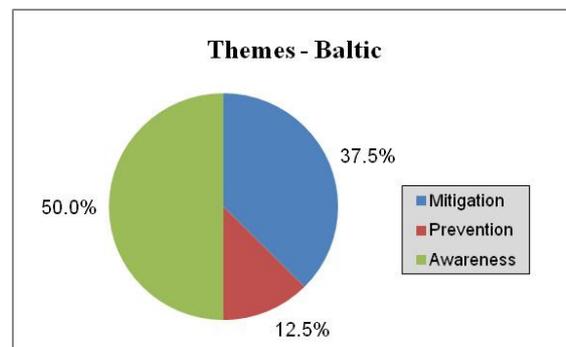


Figure 49 Percent representation of themes in the Baltic best practices (adjusted percentages).

7.4. Type of initiative

Most of the Baltic practices were recorded as Practice/Activity/Action initiatives (50%), two practices were recorded as Campaigns (37.5%), and one practice (12.5%) was also recorded as an 'Other' type of initiative (Figure 50). The one-off cleanup of the German beach near Rostock harbour was reportedly done purely as a Campaign, whereas 'Fishing for litter in Germany' was a pure Practice/Activity/Action. The 'Clean beach campaigns' in Denmark were both a Campaign and a Practice/Activity/Action, whereas 'Separation and recycling of materials from fishing trawl and nets' was reported as a Practice/Activity/Action and as an 'Other' initiative, namely 'innovation' (Table 4).



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Table 4 Initiative type combination frequencies for the Baltic best practices.

Combinations	Frequency
Campaign	1
Practice/Activity/Action	1
Practice/Activity/Action & Campaign	1
Practice/Activity/Action & Other (innovation)	1

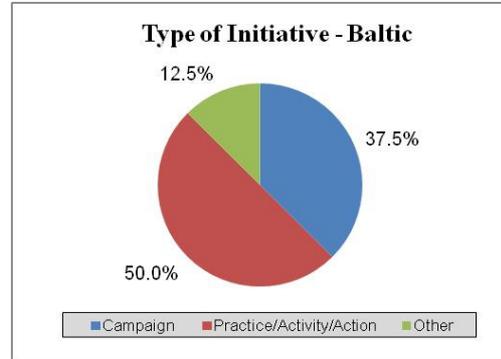


Figure 50 Percent representation of initiatives in the Baltic best practices (adjusted percentages).

7.5. Financial support

Financial support from external sources was provided to three of the four best practices recorded in the Baltic. Specifically, the 'Clean beach campaigns' in Denmark were funded by the initiating organisations' own funding and by the private sector, the 'Separation and recycling of materials from fishing trawl and nets' is being funding by the national government, as is 'Fishing for litter in Germany'.

7.6. Initiating body

Three quarters of the practices of the Baltic were initiated by NGOs (Figure 51): 'Cleanup of the beach near Rostock harbour' was initiated by Surfrider Foundation Europe, 'Clean beach campaigns' was initiated by KIMO Denmark and Keep Denmark Clean, and 'Fishing for litter in Germany' was initiated by NABU, the Nature and Biodiversity Conservation Union in Germany. On the other hand, 'Separation and recycling of materials from fishing trawl and nets' was initiated by the Danish Market Maturation Fund and John Frandsen A/S.

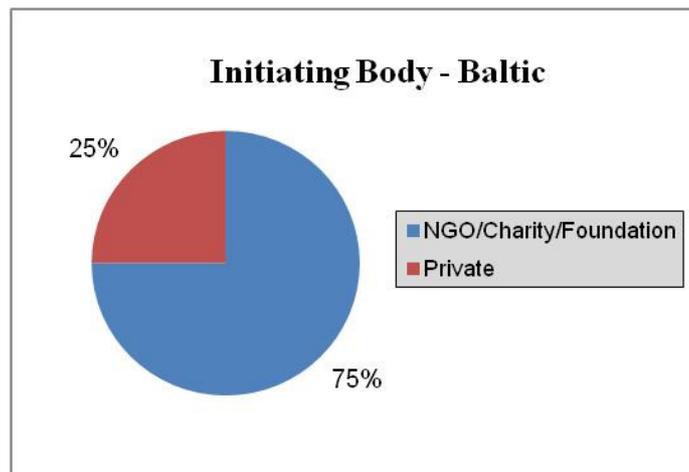


Figure 51 Initiating bodies of the Baltic best practices (adjusted percentages).

7.7. Data availability and involvement of volunteers

Only 'Fishing for litter in Germany' collected data and only 'Cleanup of a beach near Rostock Harbour' and 'Fishing for litter in Germany' involved volunteers.



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8. ANALYSIS PER GEOGRAPHIC AREA: EUROPEAN-WIDE AND GLOBAL

8.1. Scale of implementation

The MARLISCO consortium recorded one European-wide best practice and five Global best practices. One of these practices, the Kuna Yala project described in section 9.6, is not really a global practice, in the sense that it is not being implemented on a global scale. However, because it is being initiated by the Lighthouse Foundation, which is responsible for various projects implemented around the globe, and because it takes place outside the four European regional seas it is included in the 'Global' category.

8.2. Duration

The European-wide and Global best practices are relatively well established, since 66.7% have been active for five years or more and 33.3% for two to five years (Figure 52). 'Ocean Initiatives' is the oldest of these six best practices, dating back to 1995. The second oldest best practice in this group is the European-wide 'BREF for wastewater and waste gas management in the chemical sector' that has been active since 2003. 'Waste Free Oceans', 'Dive Against Debris' and 'Trash Wall' are the youngest of the group, since they have only been active since 2011.

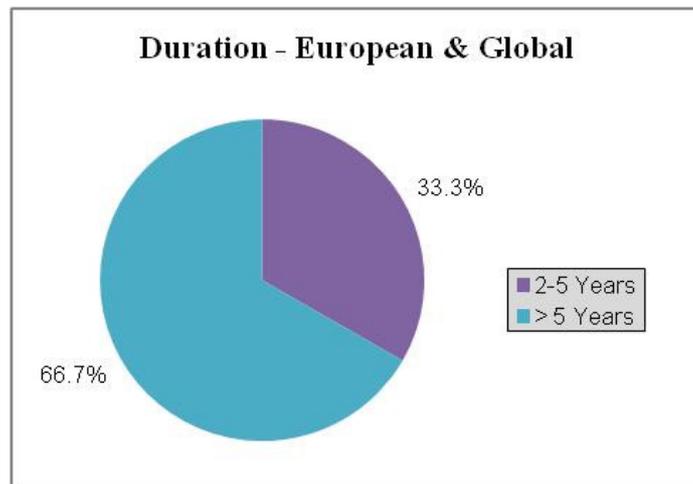


Figure 52 Duration of the European and Global best practices.

8.3. Theme

The most represented theme in the European-wide and Global best practices is Awareness (50.0%) whereas Prevention and Mitigation come in equal second place with 25.0% representation each (Figure 53). The most frequently reported theme combination was Mitigation & Awareness, once again demonstrating the complementary nature of the two themes (Figure 54). Awareness was reported as the only theme for 'Trash Wall' whereas Prevention was the only theme for the European-wide best practice (the BREF).



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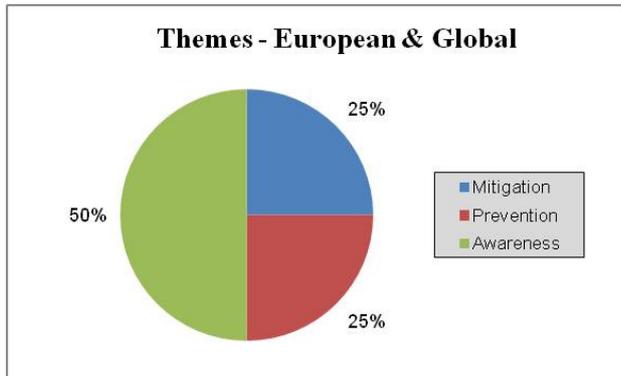


Figure 53 Theme representations in the European and Global practices (adjusted percentages).

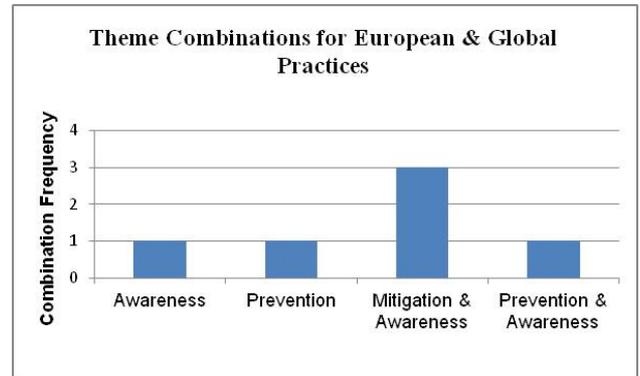


Figure 54 Frequency of theme combinations for the European and Global practice.

8.4. Type of initiative

Most of the European-wide and Global best practices fell under the Practice/Activity/Action category (50.0%), 33.3% fell under Campaign and one practice, the BREF, representing 16.7%, belonged to the Policy/Regulation Implementation category (Figure 55). The most frequently reported initiative combination was Practice/Activity/Action & Campaign (Figure 56).

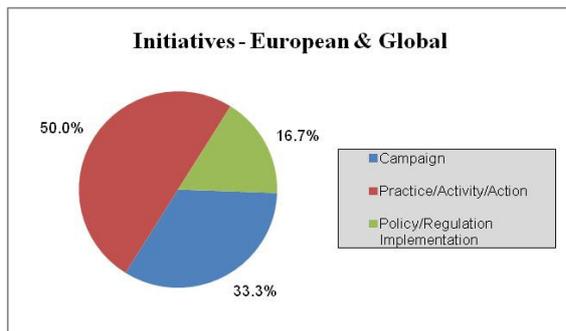


Figure 55 Initiative representations in the European and Global practices (adjusted percentages).

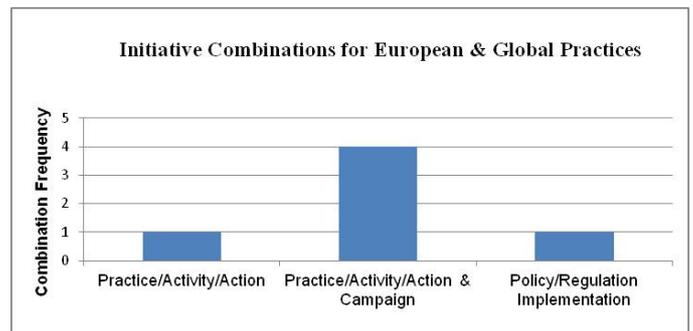


Figure 56 Frequency of type of initiative combinations in the European and Global practices.

8.5. Financial support

No external financial support is required by the European-wide best practice, since its implementation is part of the licensing requirements for chemical industries. On the other hand, all five of the Global best practices received external financial support (Figure 57). 'Dive Against Debris' and 'Trash Wall' received financial support from charitable donations and NGOs respectively, whereas 'Ocean Initiatives' received financial support from public grants and private partners in the country of implementation. The private sector has been reported as the main funding body of the 'Kuna Yala Project' and the 'Waste Free Oceans Initiative' (Figure 58).



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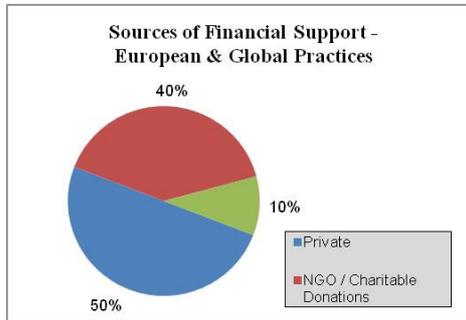


Figure 57 Sources of financial support for the European and Global practices (adjusted percentages).

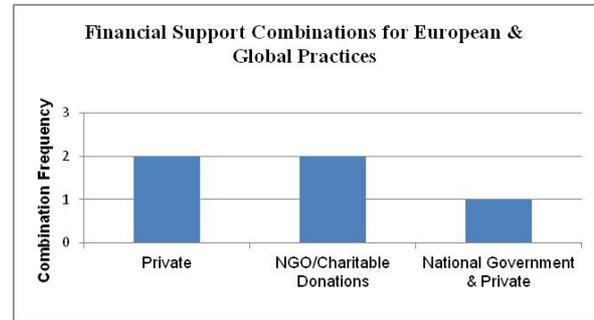


Figure 58 Combinations of financial support sources for the European and Global practices.

8.6. Initiating body

Four best practices, representing 66.7% of the group, were initiated by an NGO/Charity/Foundation (Figure 59). One best practice, the 'Waste Free Oceans Initiative' was initiated by a private entity (the European Plastic Converters), and one best practice, the 'BREF.. for the chemical industry' was initiated by the EU.

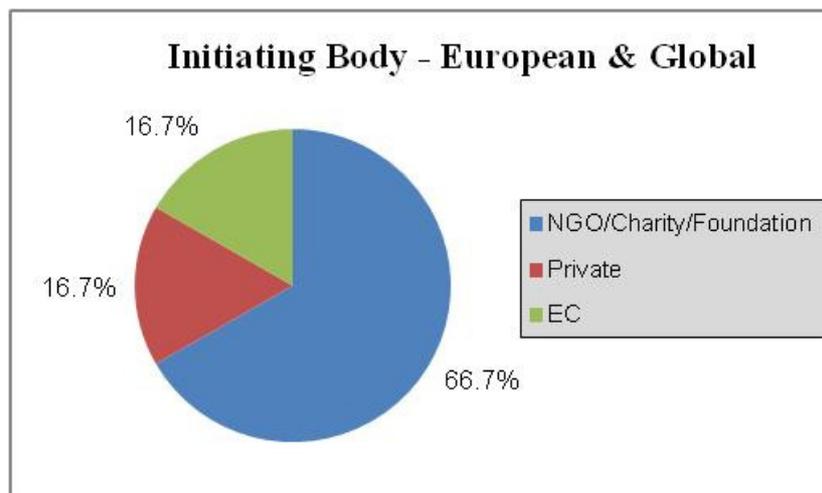


Figure 59 Bodies initiating the European and Global best practices.

8.7. Data availability

Only two best practices collected data, 'Dive Against Debris' and 'Ocean Initiatives', representing 33.3% of the European and Global best practices. At least one more practice from this group, namely the 'Waste Free Oceans Initiative', could include data collection.

8.8. The involvement of volunteers

The European BREF, being a policy instrument, does not require any voluntary action but is mandatory. Of the five Global best practices, four required support from volunteers. The only one that did not was the 'Kuna Yala' project.



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9. GROUPING THE 72 BEST PRACTICES ACCORDING TO THEIR CHARACTERISTICS

The MARLISCO best practices were analysed and grouped according to their key characteristics, resulting in 17 groups, as outlined below:

- Regional actions to address marine litter
- National practices with a wider application
- Implementing policies/regulations to minimise marine litter
- Economic and market based instruments
- 'Other' types of initiatives
- Integrated approaches to the marine litter problem
- Monitoring marine litter
- Beach cleanups
- Waste from rivers
- Floating litter
- Seabed litter
- Waste from ships
- Practices targeting plastics
- Practices targeting cigarette butts
- Raising awareness
- Working with schools
- Promoting social responsibility

The sections in this chapter describe the best practices that fall within each of these 17 groups in greater detail.

9.1. Regional actions to address marine litter

Often, the characteristics of the marine litter problem can be sea-specific since factors such as origin of litter and the specific character and properties of the sea can affect the type and distribution of waste. Therefore, coordinated, regional actions are often taken to address the marine litter issue in a particular sea or region. The MARLISCO consortium recorded 3 such regionally implemented best practices, one from the North Sea and two from the Mediterranean.

The '*Keep the Mediterranean litter free campaign*', which commenced in 2008 and is ongoing, includes different types of activities, such as voluntary beach cleanups, environmental exhibitions and seminars, drawing and photography contests etc., in several Mediterranean countries. The "vehicles" of the campaign include a poster/brochure, produced in 10 languages, presenting the various causes and impacts of marine litter and highlighting the role and responsibilities of all actors concerned, and a publication entitled "Public Awareness for the Management of Marine Litter in the Mediterranean" presenting specific sector-based guidelines for the main stakeholders. The campaign, which was launched by MIO-ECSDE, HELMEPA (Hellenic Marine Environment Protection Association) and Clean Up Greece, and is financially supported by UNEP/MAP MEDPOL, had an impact on the Contracting Parties of the Barcelona Convention and the development of a Policy Document and the associated Strategic Framework for Marine Litter management in the Mediterranean that was adopted in 2012.

HELMEPA also initiated and funds the second Mediterranean-wide best practice, '*At-sea recording of marine litter and implementation of targeted training programmes for the maritime industry*', which involves the mobilization of



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its member vessels to conduct observations and recording of marine litter floating on the sea surface, when it is safe and practicable for their vessel, during a sea passage, at anchor or at berth. Completed data sheets are collected and data are incorporated in a simple spreadsheet and a GIS application. Additionally, seafarers, companies and organisations directly or indirectly linked to the Greek maritime community participate in HELMEPA's annual training programmes on marine environmental awareness, which include extensive presentations on the impacts of marine litter.

The third regional best practice comes from the North East Atlantic and specifically from Denmark, and also addresses marine professionals. In June 2010, the International Maritime Organisation finished the revision of the Standards of Training, Certification and Watchkeeping Code, in which basic international requirements on training, certification and watch-keeping are described for seafarers. In the revised code, it is prescribed that maritime officers should gain knowledge and awareness of the prevention of pollution to the marine environment. ProSea with funding from the EU, organises '*Marine safety awareness courses*' that aim to provide information on how to deal with the sea in a responsible way, what the vulnerabilities are, how our activities affect the sea, and what each sector, company or individual can do to sustainably 'work' with the sea.

9.2. National practices with a wider application

Some partners submitted practices that are being implemented at a national level but are part of international or European-wide programmes and initiatives. This section describes these practices.

The best practice '*Blue Flag Programme in Portugal*' describes the Portuguese implementation of the Blue Flag Programme, a voluntary eco-label programme for beaches and marinas that was initiated in 1987. The Blue Flag is awarded annually to Portuguese beaches and marinas that fulfil a set of criteria within four categories: (1) Information and environmental education; (2) Water quality; (3) Environmental management and equipment; and (4) Security and services. As part of these criteria, several beach cleanups and environmental awareness activities are organised by the award winning beaches and the responsible municipalities. The Blue Flag Programme is now active in 46 countries around the world.

Coastwatch started as a survey of Irish shores cleanliness in September 1987, which soon spread throughout Europe. Its popularity is reflected in the fact that two separate Coastwatch practices have been recorded within MARLISCO, one in Portugal and one in Romania. '*Coastwatch campaigns in Portugal*' are organised by the NGO GEOTA and have regional coordinators ranging from schools, local authorities, administration of protected areas, NGOs and others. The Coastwatch campaigns are organised in four phases: (1) Preparation and dissemination of the campaign; (2) Monitoring and training of teachers, students and other participants; (3) Organisation of data, regional reports and statistical analysis; and (4) Preparation and presentation of the final report and campaign results. So far, 22 annual campaigns have been performed in Portugal. According to data from the last edition (monitoring period from November 16 to March 21), 324 teachers and 3524 students from a total of 4764 participants of all ages and from different sectors were involved to clean 742.5 km of shoreline.

In Romania, '*Coastwatch Constanta*' started in 1995 by the NGO Mare Nostrum. Through this practice, Mare Nostrum, with the help of volunteers and educational institutions, identifies and compiles categories of waste present on the beach. Objects made of plastic, paper and cardboard, metal, glass, wood, textiles, medical waste etc, are collected and inventoried and a database is created. In 2011, a total of 45,369 pieces of waste were collected from the 32 coastal areas monitored. The waste was made up of plastic (66%), paper (19%), metal (10%), glass (4%), and other waste (1%).

'*Ocean Initiatives*', which has been recorded as a Global practice, is an initiative of Surfrider Foundation Europe. Volunteers organise local cleanup operations, and Surfrider Foundation Europe manages the co-ordination of operations, offers logistical support, and broadcast news of the events on a European, national and local level. Traditionally, all the cleanups are organised in the first spring weekend in order to benefit from strong media coverage, but it is possible to organise campaigns throughout the year. Surfrider Foundation Europe also offers free for download tools (such as banners and posters) to help advertise the events. A guide for the organisers is also



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available online. After the event, organisers are requested to fill in an online report on the amounts and types of collected litter.

Ocean Initiatives are widespread around the world, and mainly in Europe, therefore it is not surprising that they have been recorded as a national best practice as well. *'Ocean Initiatives in Portugal'* was initiated by the Portuguese Surfrider Foundation, Viana de Castelo Chapter in 1998. After 2011, other Surfrider Foundation chapters were founded in Oporto, Lisbon and Azores and now all of these chapters establish partnerships with municipalities and other associations to organise Ocean Initiative beach cleanups throughout Portugal, especially during the first weekend of spring.

'Let's Do It! Romania' is part of *'Let's Do It, World!'* - a movement that started in Estonia in 2008 and which brings together volunteers to clean illegal dumping sites. The national objectives in Romania are to: identify areas with large amounts of garbage, clean these areas in one day, monitor these areas together with volunteers, and involve the volunteers in the National Register of Waste project. In 2009, around 6500 waste piles were identified, pinpointed on a map and cleaned during the campaign.

9.3. Implementing policies/regulations to minimise marine litter

European and national policy makers have paid considerable attention to the issue of marine litter in recent years. This is reflected in the fact that the MARLISCO consortium recorded ten Policy/Regulation Implementation initiatives, accounting for 11.6% of all the recorded practices. Five of these initiatives are implemented nationally, three are implemented at the sub-national level, one is implemented regionally and one at the European level. What is interesting to note is that seven of these ten practices have Prevention as a main theme.

Three of the Policy/Regulation Implementation best practices address waste from ships. Two of them come from Cyprus and one from Portugal, although hypothetically all three could be applied in any country in Europe and act in a complementary way to one another. The *'Indirect fee system for the collection of ship waste in Cyprus'* is a practice implemented nationally across Cypriot ports, in response to European legislation 2000/59 EC. The Cyprus port authority applies a daily fee to all ships entering Cypriot ports, which allows them to dispose of their waste, regardless of whether or not the ship will actually dispose of any waste. The fee applied and the waste disposal allowance both depend on the type of ship. This Indirect Fee System, which has been in operation since 2005, provides an incentive for ships to deliver their waste to ports rather than to dispose of them at sea.

The *'Implementation of MARPOL Annex V in Cyprus'* is another best practice that is in effect on a national scale in Cyprus in response to the MARPOL Convention. Since 1998, the Department of Merchant Shipping, in its capacity as the competent Cypriot authority, under Regulation 8 of MARPOL Annex V (Port State control on operational requirements), performs random inspections on all ships within the port areas of Cyprus, and on all Cypriot ships abroad. The officers check the ships' garbage management plan, the garbage record book and verify the existence of garbage disposal receipts from previous ports. They also check that garbage collected is stowed and segregated in accordance with the ships' garbage management plan and verify that placards to notify the crew and passengers on the requirements for disposal of waste are properly displayed. Small passenger ships engaged in coastal navigation are also regularly checked for compliance with the national requirements. MARPOL is in force in all other European countries, although the specific details may vary from country to country.

The Portuguese best practice addressing waste from ships is also implemented in response to the European Directive 2000/59/EC. *'Regulation of port reception facilities for ship-generated waste'* involves the installation and use of port reception facilities for ship-generated waste and cargo residues from ships calling at Portuguese ports, in order to increase the protection of the marine environment by reducing discharges into the sea. This best practice has been in place since 2003.

The *'Assessment of marine litter pollution on Slovenian coasts'* is a best practice that responds to the requirements of the Marine Strategy Framework Directive, and specifically its Article 8 which requires that initial assessments are made on all of the 11 Descriptors of the Directive, one of them being marine litter. What started out as research for the graduation thesis of one student has now expanded to include Slovenian national agencies, a university and an



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NGO all working together to clean Slovenia's coasts and sea while at the same time using established protocols to record the amounts of collected litter. This is an example of another national best practice initiated in response to European requirements.

The last of the five nationally implemented Policy/Regulation Implementation best practices comes from Ireland. In March 2002, the Irish Government, under its 2001 Waste Management Act, introduced a 15 cent levy on plastic shopping bags, which were previously provided free of charge, to customers at points of sale. The key objective of *'The Plastic Bag Levy'* is to reduce the amount of plastic bag litter. Prior to the introduction of the levy, plastic bags constituted 5% of the national litter composition, whereas in 2007 plastic bags represented less than 1% of the national litter composition. Importantly, the levy has influenced consumer behaviour. In 2003, 91% of those surveyed believed that the levy was a good idea. This contrasts greatly with the results of a previous survey, conducted in 1999, which showed that 40% of the respondents were not willing to pay for plastic bags. In addition to the positive behaviour change and the associated reduction in the use of plastic bags, the levy also generated significant revenue for the Irish Environment Fund.

Coastal local authorities are important stakeholders to the marine litter problem and often take action to address it. The following two sub-national best practices show examples of how such action is taken. *'Municipal beach cleaning in Limassol'* is the last of the three Cypriot policy/regulation best practices. Since 2006, Limassol Municipality has been carrying out year-round, weekly cleanups of a stretch of beach covering a length of 3.2 km. Between April and October, cleaning takes place two times a week, whereas in the off-season months (November to March) the beach is cleaned once a week. The activities that take place involve emptying the rubbish bins, collecting larger pieces of litter from the beach by hand and collecting smaller pieces of litter (e.g. cigarette butts) using a specialized vehicle.

A similar best practice is being implemented in Portugal. The Municipality of Cascais carries out regular cleanups of the municipality's beaches and cliffs. The cleanups, which are organised by the Environmental Municipal Enterprise of Cascais, are performed on a daily basis during the bathing season and whenever necessary in the winter. Although *'Regular beach cleanups by the Cascais Municipality'* has been recorded as a sub-national best practice, it was noted that all coastal municipalities in Portugal have similar policies.

The most recent Policy/Regulation Implementation practice comes from France. The *'Programme of coordinated management of marine debris on the shore of Marseille Provence Metropolis Urban Community'*, which commenced in September 2011, is being applied sub-nationally across 18 municipalities that make up the Marseille Provence Metropolis Urban Community (MPMUC) and takes an integrated approach to the issue of marine litter. In addition to collection of litter from the beach, the programme also includes beach litter monitoring using the OSPAR/MerTerre protocol, the implementation of preventive solutions, and awareness-raising activities. The programme is funded by the MPMUC.

The only Policy/Regulation Implementation practice that has been recorded as European-wide is the *'BREF (Best Available Techniques Reference Document) in common wastewater and waste gas treatment/ management systems in the chemical sector'*. The BREF addresses the prevention of marine litter, and specifically plastic pellets, at the source. The criteria set in the BREF are integrated in the permits of manufacturers of plastic materials and therefore can be applied to prevent the release of plastic pellets from industrial sites to the environment.

The *'Marine Safety Awareness Courses'*, already described in section 9.1, is the regionally implemented Policy/Regulation Implementation initiative.

9.4. Economic and market based instruments

As stated in Section 2.4, two Economic and Market Based Instruments were recorded by the MARLISCO consortium. One of them is *'The Plastic Bag Levy'* in Ireland, already described in section 9.3, and which requires consumers to pay a tax for plastic bags. The other best practice that falls within this type of initiative is the *'Responsible Snack Bars Project'* or *'Chiringuitos Responsables'* as it is called in the originating country, Spain. The Spanish Biodiversity Foundation of the Ministry of Agriculture, Food and the Environment, prepared a *'Decalogue of Good Environmental Practices'* and encouraged beach snack bars to adopt it by signing a pledge. To give emphasis to the Decalogue, the *'Responsible Snack Bar Award'* was also launched for the first time in November 2012, and gave cash prizes to the



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six most responsible snack bars. The cash prize together with the marketing advantage of being a responsible snack bar provide economic and market incentives to the 526 snack bars that signed the pledge in the project's first year of operation. Following the success of the project, the Spanish Biodiversity Foundation launched the second edition of the project in June 2013.

9.5. 'Other' types of initiatives

In addition to the four types of initiatives that were listed in the template (Policy/Regulation Implementation, Economic and Market Based Instruments, Practice/Activity/Action and Campaign), partners had the option to describe 'Other' types of initiatives. This resulted in a diverse list of six initiatives falling under the 'Other' category. Two of these initiatives were classified as 'educational', one in a more traditional sense than the other, but both recorded in England. The *'Devon waste education programme'* has been running for 8 years and is one of the UK's largest waste education programmes, with over 20,000 children (aged 4-16) involved in assemblies, workshops, school waste audits and action planning, landfill site visits and Junior Life Skill events. Waste audits and action planning are an important part of the programme and are often the starting point for many schools in their campaign to minimise waste. The impact of the programme is clearly demonstrated with an average reduction of 38.6% in waste per school in the 2011/12 academic year. A wide range of hands-on workshops are organised, including workshops on the 3Rs (Reduce, Reuse, Recycle), composting and litter in the environment.

The target audience of the *'Return to Offender campaign'*, the second educational initiative, is much wider, addressing the general public and taking a much more direct approach to marine litter. The campaign encourages people who find identifiable items of beach litter to return them to the manufacturer of the product and offers Freepost for the 12 most frequent 'offending' manufacturers. This is intended to encourage producer responsibility by challenging companies to step up the 'anti-littering' message on their products, consider using less harmful packaging to ensure products can be broken down naturally without putting wildlife at risk, promote recycling and/or reuse wherever appropriate, and support community beach litter initiatives or anti-litter projects. Since Return to Offender began in 2006, over 2000 individual items of identifiable marine litter have been returned and almost 100 individual responses from companies have been received.

The *'Separation and recycling of materials from fishing trawls and nets'*, which takes place in Denmark, has been recorded as 'Innovation'. This project, which started in November 2011, will develop a technology that makes it possible to recycle both plastic and steel from discarded fishing nets to new products. The core of the project is an advanced technology that can break, crush and sort different plastic fractions from fishing nets and compress the material again to form clean plastic particles. The same is possible for the steel that is included in the nets. The processed plastic and steel can be sold again to new production.

The shore of Charente-Maritime in France is particular, in the sense that debris originates primarily from marine activities (oysters culture), whereas in the south of France marine litter has more 'classic' sources. The problem is exacerbated by the fact that the municipalities clean the beaches with inappropriate materials that can cause erosion and biodiversity loss. *'Project Blue Line: programme of coordinated management of marine debris on the shore of Charente-Maritime'* aims to reduce the debris, to inform the municipalities, and to develop a real job of 'coastal worker' who will view marine litter as a resource. Therefore Project Blue Line has been recorded as a practice with 'job creation' as one of its aims.

The Scottish Environment Protection Agency prepared and published a report addressed to owners and operators of marine-based aquaculture on how they can minimise their waste (solid and liquid waste and fish mortalities). The *'Waste minimisation guide for aquaculture'* gives advice on how to implement the waste hierarchy (reduce > reuse > recycle) for feed bags, containers for chemicals, discarded cages, wooden pallets etc, to not only reduce waste, and thus the operation's environmental impact, but to also reduce costs. This is the best practice that was described as 'Guidance'.



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9.6. Integrated approaches to the marine litter problem

Some of the recorded best practices took a more integrated approach to dealing with the issue of marine litter, involving a range of themes and initiatives, including cleanup campaigns coupled with marine litter data collection, awareness raising and preventive actions.

The *'Integrated action plan for the cleaning of the Channel coast'* describes the course of action taken by the General Council of Manche (CG50) in France to clean up the French Channel coast. CG50 developed a guide to help local authorities, social enterprises and other stakeholders wishing to organise cleanups of the 300 km of beaches and 50 km of rocky coasts that make up the French Channel coast. Furthermore, in 2004, with input from local stakeholders, CG50 prepared an Action Plan for cleaning the Channel coast while respecting the local flora and fauna, and started providing technical and financial support to the municipalities that wish to implement it. Together with the Action Plan and the cleanups, awareness raising campaigns are also conducted.

Two additional integrated approaches for addressing the issue of marine litter have been recorded in France and these are the *'Programme of coordinated management of marine debris on the shore of Marseille Provence Metropolis Urban Community'* described in section 9.3 and *'Project Blue Line: programme of coordinated management of marine debris on the shore of Charente-Maritime'* described in section 9.5.

The Republic of Slovenia, through its Ministry of Agriculture and the Environment and the Slovenian Environmental Agency, has taken an integrated approach to clean the Slovenian coasts and sea from marine litter, described in the *'System of cleaning of the Slovenian coasts'*. The Government has a contract with the private company VGP Drava Ptuj for coastal area water management, which includes the removal of beach and floating marine litter and covers circa 35% of the Slovenian coast length. The government also works with NGOs, an example being the regular beach cleanups that are organised by the NGO Eco Vitae, which also organises open events for volunteers every year on the International Coast Day, where the issue of marine litter is presented. All the litter that is collected through these operations is analysed and the results are included in the Initial Assessment for the Marine Strategy Framework Directive.

The *'Management plan of coastal habitats'* has been developed by the Environmental Municipal Enterprise of Cascais, Portugal in 2011. It is intended to be a technical instrument that allows characterizing and defining action plans that lead to the environmental improvement of the coastline, and aims to restore the natural conditions of the coasts. One of the parameters monitored by the plan is the accumulation of waste on the municipality's coast. The sites where an accumulation of waste has been identified are cleaned. However, the plan takes a more integrated approach that involves the definition of an Action Plan, the definition of an Operational Plan, the implementation of the defined actions/operation and annual monitoring of the areas. All this is achieved via the active interaction with the youth volunteer programmes that are promoted by the Municipality of Cascais.

The *'Kuna Yala project'*, or in full *'Panama 2011: Sustainable use of marine resources in Kuna Yala'*, is a project that aims to educate the communities in Panama's Kuna Yala islands on the principles of sustainable development. Activities focus on fisheries and coral reef management, sustainable agriculture and sustainable waste management, thus preventing the release and therefore impacts of marine litter, carrying out mitigation actions and raising awareness. This Lighthouse Foundation project is one of the five recorded Global best practices.

9.7. Monitoring marine litter

The lack of available marine litter data is an important obstacle to the reduction of marine litter in European seas and one that has been identified by the European Commission's MSFD as a point for improvement. In response to the MSFD, all Member States must provide baseline marine litter data for their seas and beaches. The best practice *'Assessment of marine litter pollution on Slovenian coasts'* already described in section 9.3 shows how Slovenia is addressing this MSFD requirement.

However, action is also taken by individual associations and NGOs that are trying to address this issue. The best practice *'Monitoring marine litter in Brittany'* is a great example of such action. Surfrider Foundation Europe's Finisterre and Brittany chapters in France, organise monthly litter cleanups on Porsmillin beach in Brittany in



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response to the requirements of the MSFD and the OSPAR convention. The cleanups are carried out in accordance with the OSPAR protocol for sorting and identifying litter and the Surfrider Foundation chapter is therefore an official observer. This marine litter quantifying operation, with duration of 3 years, will enable the identification of the type of collected waste and will facilitate the build-up of a scientifically valid and significant database.

The monitoring of the changes in marine litter in specific areas is the only meaningful way to determine whether other marine litter minimisation practices have an impact.

9.8. Beach cleanups

Beach cleanups were the most frequent action recorded in the 72 best practice examples, and in fact, many of the best practices described in other sections have an element of beach/coast cleaning. Beach and coast cleanups are either organised by associations and groups of volunteers or by the local municipality. What makes them different from the municipal beach cleanups described in section 9.3 is that they do not occur regularly or in response to a policy of the municipality, but are rather organised either in response to a national or international environment-related day or within the framework of activities of local interest and civil society groups. All the best practices described in this section involve the cleanup of specific beaches/coasts, some initiated by the municipality and some by an association.

For the past forty years, various associations have been cleaning portions of stretches of beaches located between rocky parts of the shore in the Cotes d'Azur region in France. In 2003 the NGO Marseille Horizon proposed to unite their efforts on the same day to reinforce the message and facilitate logistics. This is how '*Operation Clean Coasts*' was born. Since 2008, the event has been organised by MerTerre, which also urged participants to quantitatively and qualitatively assess the collected waste. Fifty organisations/associations were involved in the 2012 campaign with more than 1000 participants collecting 90 m³ of submarine and terrestrial waste.

'*Beach cleaning "Mare pulito"*' is an annual cleanup campaign, implemented in the Ligurian Sea and North Tyrrhenian Sea since 1998. This initiative, dedicated to the bathers, pleasure boats and tourists of the Ligurian coasts, involves the cleanup of the beach by common people and fishermen. In 2011, the event was incorporated into the activities of project GIONHA, a project initiated under the Regional Development Fund.

Another cleanup practice comes from the Baltic and specifically Germany. In '*Cleanup of a beach near Rostock Harbour*', a polluted beach near the harbour was cleaned within the range of activities that were organised for an EU-wide awareness programme against marine litter pollution that took place between the 22nd and 25th of March 2012. Over 30 people participated in this initiative to clean a 300m long coastal section in 90 minutes. This one-off event, initiated by Surfrider Foundation Europe, was also supported by the EUCC and BeachedArt, and took place without the need for external funding.

The '*Ria Formosa cleanups*' is another cleanup campaign that requires no external funding. Every year, the Santa Luzia Parish Council in partnership with Tavira Municipality, TaviraVerde (the Environmental Company of Tavira Municipality) and Algar organise a cleanup campaign in Ria Formosa, a protected lagoon that is part of a complex system of barrier islands in Portugal. The general public voluntarily joins this effort. While this yearly cleanup commenced in 1999, no activities took place in 2010 and 2011.

The '*Sea Brigade project*', created through cooperative principles of sustainability and volunteerism, aims to clean up the beaches of the Grândola region in Portugal and raise awareness about marine litter. Therefore, every year, over two weeks in May, volunteers gather to clean up the beaches. The waste is collected from the beach and surrounding dunes and separated into plastic, glass, undifferentiated waste and hazardous waste. The Maritime Police is alerted when hazardous waste is found and Grândola Municipality, which offers logistical support, is responsible for the transport of the garbage bags.

Associação Litoral Aventura (ALA), a Portuguese sporting association, is responsible for initiating another beach cleanup practice, namely the '*Santo André beaches cleanup*', which includes the involvement of many stakeholders and funders, both public and private. The participating entities agree a course of action ahead of the day of the



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campaign and assign tasks. On the cleanup day, volunteers are transported to the beaches and are given materials such as t-shirts, gloves and bags for the garbage. The beach cleanup occurs during the morning and afternoon. These campaigns are always advertised and promoted at local schools and among the population by local radio and newspapers, as well as through other promotional material. 2011 was a record year, with 200 participants.

The final cleanup best practice also comes from Portugal and was initiated by the Nucleus of Speleology of the Blue Coast (NECA). The *'Programme of coastal cleaning campaigns in Sesimbra'* includes several cleaning activities at beaches, coves and caverns near Sesimbra, with difficult access and most affected by marine litter. The collected litter, especially the glass and plastic, is separated and sent for recycling. The programme also aims to raise social awareness of marine litter by the dissemination of results in local media. Over the years, there has been a trend to increase the number of activities performed. In 2000, the first year of the programme, eight activities were recorded, whereas in 2008 more than 40 activities took place.

9.9. Waste from rivers

Land-based activities are a major source of marine litter, since waste finds its way to coasts and seas through rivers that often act as fast transport routes. Preventing this transport can, therefore, lead to important reductions in the amount of marine litter in European seas. MARLISCO recorded four practices that aim to address litter that enters the marine environment from rivers. One of these has been recorded in France, one in the UK and two in Portugal.

The French best practice is the *'Installation of a barrage at the Adour River for the interception and collection of waste'*. In this best practice initiated by the Adour Institution, a public interdepartmental institution established in 1978 to manage the Adour River, a floating barrier is installed at a strategic position on the River to capture floating waste. In 2012, collection operations on the barrage took place from 15 October to 15 June for 4 half days per week.

'Thames 21: River Thames and waterways in Greater London' is a best practice that was recorded in the UK and falls within the practices of the North East Atlantic. Thames21 aims to improve London's waterways for people and wildlife, using a volunteer force of over 9000 people to 'clean and green' the capital's 400 mile network of waterways. It also runs focused campaigns on particular stretches of waterways or ponds/lakes. In 2012, 9337 volunteers took part in 366 events, helping to remove about 800 m³ of debris from waterways.

Similar cleanups, although at a smaller scale, are organised in Portugal. The Tavira municipality occasionally organises *'Gilão River Cleanups'*, which are open to the public and aim to clean the part of the river that passes through Tavira. Although cleanups were recorded every year since 2004, no cleanups were undertaken in 2008, 2009 and 2011. Unfortunately, there is no record of the number of people involved or the amount of litter removed during the campaigns.

The second Portuguese best practice involving river cleanups is *'Cleaning of Alvor Estuary'*. Although this is a bit different from the other river cleanup campaigns described above, since it regards an estuary, it still helps prevent waste from rivers from entering the marine environment. Every year, the "A Rocha" Association sets up a cleaning action in the Alvor Estuary which is integrated in the Natura 2000 Network. This activity is undertaken once a year in areas of wetland marsh, estuary and dunes. The cleaning is performed by volunteers, usually local or foreign students. It has the collaboration of the company EMARP, which provides cleaning supplies such as gloves, tongs and trash bags and also performs the garbage collection.

9.10. Floating litter

Floating litter is a great nuisance, not only to bathers, but also to fishermen, the shipping industry and everyone involved in the marine sector/industry. Moreover, floating litter has the potential to adversely affect marine animals and birds that can either become entangled in it or mistake it for food and ingest it (particularly when it comes to plastics). Therefore, it is not surprising that five best practices involving the cleanup of floating debris have been recorded.

'Sea cleaning vessel 'Battello Spazzamare'' is a project funded by the Italian Ministry of the Environment and Protection of Land and Sea, for the collection of floating litter in Italian Marine Protected Areas. The vessel is



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equipped with a basket situated at the bow, which is used to collect and stow floating litter. Once collected, the litter is divided in multi-material (plastic, glass and aluminium), wood, organic material, and undifferentiated waste and accordingly sent for recycling or disposal.

'Collection of waste at sea off the Atlantic Pyrenees' describes a very similar practice initiated in response to a very specific incident. Following the collapse of a portion of the landfill of Corunna in Spain, Kosta Garbia, a union of local communities of the French Basque coast, organised the collection of floating waste using a specially equipped boat. The operation, which has been active since 1998, takes place from mid-May to end of August every year.

A group of municipalities has also come together in Turkey to address the issue of floating marine litter. The *'Sea surface marine litter cleaning operation'* was launched by the Beşiktaş District Municipality in 1999 and then expanded to include three more municipalities: İstanbul, Kocaeli, and İzmir. The number of boats that each municipality has at its disposal and the number of years of activity varies, however collections take place every day in coordination with teams on shore. Garbage collection boats gather all sorts of marine litter, and İstanbul Metropolitan Municipality and Beşiktaş Municipality send collected marine litter to waste repositories to be sent to recycling plants later. It has been observed that the amount of marine litter on the sea surface has been reduced due to these operations.

The *'Waste Free Oceans Initiative'*, that has been set up by the European Plastics Converters, is a public-private, global initiative aimed at mobilising and uniting the fisheries sector, the international plastics industry and all stakeholders in combating the growing issue of floating litter on the coastlines, in rivers and in the sea. The initiative uses existing fishing trawls and new technology to collect floating marine litter and bring it back to land for recycling and sorting. Since its commencement in 2011, Waste Free Oceans has initiated floating debris cleanups in many European countries.

'Fishing for Litter in Germany' is a similar initiative. This initiative is based on cooperation with fisheries associations. Fishermen bring ashore, voluntarily, the litter that gets caught in their nets during their normal fishing activity. The fishermen are not financially compensated for their engagement, but the disposal logistics are offered free of charge. This practice was initiated in 2011 by NABU (Nature and Biodiversity Conservation Union Germany) by launching it at 2 harbours in Schleswig-Holstein in Germany. Today, 6 harbours and about 60 fishermen have joined the scheme. Fishermen are given special big bags to store the litter collected at sea. The litter collected so far is analysed in cooperation with partners from waste industries and authorities in order to investigate waste composition, amount and potential recyclability of waste fractions such as metals or plastics. It should be noted that fishing for litter initiatives are active across Europe. In Scotland, South West England and the Baltic Sea they are carried out under the auspices of KIMO International.

9.11. Seabed litter

Seabed marine litter can be comprised of 'heavy' litter, such as large pieces of plastic, metal and wood, which rests on the seabed, or fishing nets attached to rocks and wrecks, each posing a particular threat to the marine environment and to human wellbeing. Divers have firsthand knowledge of the extent of the problem and of its impacts, and are in a unique position to help clean our seas since they have the capability to access marine litter that lies on the seabed. In fact, MARLISCO recorded 11 practices that include the involvement of divers.

Four such practices have been recorded in the Mediterranean and two of them, recorded in Italy, were implemented as part of project GIONHA: Governance and integrated observation of marine natural habitat. The first to be implemented was *'Seabed cleaning - Collection and disposal of litter at depth less than 50m'* that took place over two years (from April to October in 2010, and in April and May in 2011). During this campaign, professional divers, recreational divers, and fishermen collected waste found off the Ligurian coast, at depths less than 50m. In 2010, activities took place over nine days and involved 12 operators, 6 fishermen, 57 divers, 1 biologist and 11 boats. A total of 2150kg of material were collected, mainly fishing nets. In 2011, the activities were carried out over seven days and involved 8 operators, 4 fishermen, 20 divers, 1 biologist and 8 boats, to collect 1100kg of material, again mainly fishing nets.



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'Seabed cleaning - Collection and disposal of litter at depth greater than 50m', was the continuation of the GIONHA project, where seabed cleaning campaigns were organised from March to August 2011 using 17 bottom trawl fishing vessels that collected litter during their normal fishing operations. Each vessel was equipped with specific containers and bags of known volume. During this cleanup campaign involving fishermen, a total of 83100 litres of solid waste were retrieved and disposed of. The main type of litter removed was plastic (61%), "other material" (14%), metal and glass (9%), and fishing material (4%).

Another best practice that was recorded in Italy is the *'Beach and seabed cleaning'* that was organised in the Ligurian town of Taggia on 29 May 2011 with the help of the NGO Legambiente Liguria and the Coast Guard of Sanremo. The campaign involved local people, the Coast Guard and local diving schools working together to clean the coast and seabed around the town.

Similar seabed and beach cleanup campaigns are regularly organised by the NGO CYMEPA in Cyprus, and their practice *'Seabed cleaning in Cyprus'* is included in the Mediterranean best practice examples. Seabed cleaning campaigns are organised every summer mainly for mitigation and awareness-raising purposes. Amateur divers identify polluted areas and inform CYMEPA, which then organises the campaign with the help of local divers and local authorities. The main types of litter removed during these campaigns are car (and tractor/truck) tyres, fishing gear, boat equipment and other forms of consumer packaging and items.

A further three best practices involving divers have been recorded in the North East Atlantic. During the celebrations of World Earth Day on April 22 in 2006 and 2007, seabed cleanups were conducted on the Desert Islands Nature Reserve in Portugal to raise public awareness about marine litter. *'Seabed Cleanup: 'Desertas - Mar Limpo'* was organised by the Natural Park of Madeira and the Diving Club "Madeira Oceanó's" and it involved about 30 divers who had the support of the Command of the Maritime Area of Funchal. The waste was later handed over to the students of the Primary and Secondary School of Santa Cruz who separated it and sent it for recycling. The students also participated in a contest of drawing and handicrafts made with waste.

'Clean up the Atlantic' is a seabed cleaning initiative performed once a year in Cascais Bay, in Portugal. Volunteer divers work with local fishermen's associations and the general public to clean up the Bay. Before each annual action, an informative session is held with fishermen's associations in the Municipality and on the cleanup day, the fishing community provides one boat to transport the waste collected by divers to land. The waste is weighed and exposed for a few hours in Cascais Bay in order to raise awareness about marine litter. In past editions, collected objects included shoes, car batteries, shopping carts and baby carts, radios, glass shelves, traffic signals, anchors and various pots and fishing nets. Seven tonnes of garbage have been removed so far through this initiative.

The third North East Atlantic practice involving divers is *'Protect a Wreck'*, in which volunteer divers, nature organisations and the angler's association from the Netherlands cooperate to clean shipwrecks from nets and fishing gear, thus preventing ghost fishing and further loss of fishing gear, and protecting the biodiversity of the North Sea. Lead alternatives are made from the recovered lead and sold in the angler shops. Photographers and filmmakers are involved in the project, which shows the large scale of the problem to the general public and stakeholders. It further lobbies for better protection of the wrecks. The challenge in the project next year is to look for ways to recycle all the fishing nets collected.

Another practice that involves the filming of underwater cleaning operations has been recorded in Turkey. *'STH Harem Beach Cleaning, Rehabilitation and Conservation Project'* was initiated by a group of volunteer divers in 2006. The aim of the project is to remove marine litter from the coast of Harem Beach in Istanbul, Turkey, to urge authorities to pass legislation for the issue, and to protect marine life. The underwater cleaning team dive on the weekends in certain months of the year to extract marine litter from the seabed. An underwater filming team accompanies the divers to document their activities. An inventory is made at the end of each dive and the collected litter is exhibited at the operation area to raise public awareness. Up to now, the project has removed about 15000 pieces of solid waste making the coast by the centre of Istanbul 90% marine litter free.



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Large amounts of marine litter are found at ports, either resulting from activities taking place at the port, such as recreational fishing, or from waste being taken into ports by currents. This marine litter can cause environmental implications as well as economic problems, resulting from damage to and fouling of boat propellers. The MARLISCO consortium recorded two best practices that enlisted the help of divers to clean up two ports in Bulgaria. The best practice *'Port seabed cleanup by divers at Kiten'* describes a one-off campaign in which divers cleaned the port of Kiten, one of the most popular Black Sea summer resorts. The campaign, which was part of the national campaign "Let's Do It, Bulgaria!", was initiated by divers from diving clubs belonging to the Association "Tehnikal Diving Bulgaria". Public figures known for their passion for underwater sports supported the campaign as did Mr. Christian Holfelder, the General Manager of Scuba Pro (a U.S. company making diving equipment) in Europe.

A similar campaign, again within the activities of "Let's Do It, Bulgaria!", was organized at the port of Nessebar in Bulgaria. For *'Nessebar municipality seabed cleanup'*, on 16 May 2012, five properly equipped, volunteer divers gathered at the Nessebar harbour in the old town to remove marine litter from the port. Around 50 children from 3rd and 4th grades, who took swimming lessons at the 'Crown' swimming club, also participated. By the end of the day, over 2 tonnes of seabed litter were removed.

The final initiative involving divers has been recorded as a Global best practice. Project AWARE initiated a campaign called *'Dive Against Debris'*, which is a year-round data and debris collection effort where divers are encouraged to report on locations, types and quantities of litter that they see. Divers wishing to participate are asked to choose a site that they are familiar with and where they find marine litter regularly, and organise the collection of the litter. A data card is provided for the divers to note the amounts and types of litter collected so that they can share it with Project AWARE. Divers are also encouraged to repeat the survey of their chosen dive site as often and as regularly as they can in order to help identify trends.

9.12. Waste from ships

Various European regulations are in place to manage waste from the shipping industry. Examples of the implementation of this regulation in European countries have been recorded by the MARLISCO consortium and have been described in section 9.3. These are *'Indirect fee system for the collection of ship waste in Cyprus'*, *'Implementation of MARPOL Annex V in Cyprus'* and *'Regulation of port reception facilities for ship-generated waste'*.

Fishing and recreational boats also have the potential to release waste into the seas and oceans resulting in problems such as ghost fishing and general littering. *'Waste reception point and distribution of waste bins to vessels of Cascais'* aims to deal with this issue. In 2007 and 2008, waste bins were distributed to vessels operating in Cascais Municipality, in order to discourage waste disposal into the sea. In 2008, the first reception point (Ecopoint) for waste from vessels was installed in the Fishing Port of Cascais. The Ecopoint receives hazardous waste, especially from fishing vessels, which includes batteries, oils and oil filters and contaminated packaging. The fishermen are responsible for the Ecopoint maintenance and waste management. When the Ecopoint is full, the fishermen call the waste management companies to collect the waste and send it for recycling. In addition to the installation of the Ecopoint, a leaflet on the types of marine litter that come from fishing vessels was also distributed.

9.13. Practices targeting plastics

Plastic waste poses a particular threat in the marine environment, not only because of its abundance (it is often recorded as the greatest portion of marine litter) but also because of its properties. In the marine environment, plastic waste is found in many different forms. In its larger forms, such as fishing nets, plastic bags and six pack rings, plastic can lead to the entanglement and injury of fish, marine mammals and sea birds. In the marine environment, plastic continuously breaks down into smaller pieces to eventually form microplastics. In this smaller form, plastic is mistaken for food by sea creatures and ingested, leading to suffocation and starvation. Furthermore, plastics attract organic pollutants found in the water, which can lead to their bioaccumulation and transport up the food chain, although the extent of this is still being investigated. Given the above, it is therefore not surprising that MARLISCO recorded several practices aiming to address the issue of plastic waste in the marine environment.

Three best practices have been recorded that aim to minimise the amount of plastic bags that escape the waste management system and enter the marine environment. All three of these best practices have been reported in the



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North East Atlantic and all three try to address the problem at its source by minimising the use of plastic bags. The '*Campaign to reduce the distribution of free plastic bags*' is a Portuguese nation-wide campaign, initiated by the NGO Quercus in 2008, which aims to promote the use of reusable bags instead of disposable bags. In this campaign, which is implemented in conjunction with other campaigns about waste and more sustainable use of resources, Quercus uses the media to raise awareness in the general public, public officials and supermarkets about the need to take measures to reduce the free distribution of plastic bags. '*Launch of paid reusable bags*' also comes from Portugal and describes the efforts of one supermarket chain to minimise the use of plastic bags by its customers. Pingo Doce supermarkets throughout Portugal replaced free plastic bags for bags that cost €0.02 each and promoted their reuse. In five years, Pingo Doce decreased the distribution of plastic bags by 47% in weight, which equates to 7667 fewer tonnes of bags in landfills. The third practice that addressed plastic bags is '*The Plastic Bag Levy*' implemented in Ireland, which has already been described earlier in this chapter.

The recorded best practices also include two that target other forms of plastics. One of them also comes from the North East Atlantic, and specifically the UK, and is '*Operation clean sweep – plastic pellet loss prevention manual and pledge*', a programme designed to prevent resin pellet loss and help keep plastic pellets out of the marine environment. Operation Clean Sweep prepared a manual of best practices to ensure zero pellet loss into the environment. Companies that use plastic pellets are encouraged to sign the pledge and in return receive a certificate affirming their commitment. Operation Clean Sweep's ultimate goal is to help keep plastic pellets out of the environment, but these efforts can also help improve relations with stakeholder groups and community organisations that expect the industry to minimise its environmental footprint. The '*BREF (Best Available Techniques Reference Document) in common wastewater and waste gas treatment/management systems in the chemical sector*' already described also aims to prevent the release of plastic pellets from industrial sites.

MARLISCO also recorded practices that directly address the problem of lost or otherwise discarded fishing nets (in addition to many others that collect or prevent such waste indirectly): '*Separation and recycling of materials for fishing trawl and nets*' described in section 9.5 and '*Protect a Wreck*' described in section 9.11.

9.14. Practices targeting cigarette butts

Cigarette butts are ubiquitous on beaches. Anecdotal evidence and field research suggest that cigarette butts are among the most common items of litter found on European beaches, and especially on those of the Mediterranean. Therefore, it was not surprising that the best practices recorded by the MARLISCO consortium included one that aims to specifically address the issue of cigarette butts. '*Awareness about cigarette butt pollution*' describes the efforts of the La Rochelle chapter of Surfrider Foundation Europe to raise awareness about cigarette butt pollution to the general public and more specifically to students at La Rochelle's University campus. During the campaign, which took place in 2012, the consequences of throwing cigarette butts on the floor were explained and 'ecoboxes', small ashtrays that can be carried around in the pocket, were distributed.

9.15. Raising awareness

As described in section 2.3, most of the recorded best practices incorporate an element of awareness-raising, but the consortium recorded five best practices whose sole purpose is to raise awareness and encourage more environmentally friendly behaviour.

Perhaps the oldest of the awareness-raising campaigns is '*Bag it and Bin it – Don't Flush It*', which was initiated in the UK in 1995 and was publicly funded for the first seven years of its lifetime. The campaign aims to reduce the incidence of sanitary items and other sewage related debris on UK beaches and riverbanks through a programme of promotion, education and partnership, by focusing particularly on women between the ages of 15 and 45, and asking them not to flush products down the toilet but to bag them and dispose of them in a rubbish bin instead. A variety of campaign material was produced, including the 'Bag it and Bin it' logo, leaflets, posters, and stickers, and manufacturers and retailers were encouraged to apply the logo and/or message to their products. Although the campaign is not as actively promoted now as it used to be, its website is still maintained and the Marine Conservation Society continues to raise awareness about the issue and educate the public. In fact, in 2002 the campaign was launched across 6000 UK schools.



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Another awareness-raising practice is the *'Blue Lid Campaign'*, which aims to promote social responsibility actions by individuals. Through this Turkish campaign, which commenced in 2010 and was initiated by the School of Dentistry of Ege University and the Spinal Cord Paralytics Association of Turkey, individuals are asked to collect plastic bottle lids (blue lids), and send them to a central storage place (either via post or retail store vehicles). From there, the lids are weighed and sold to plastic recyclers. The proceeds from this sale are used to buy wheelchairs for those who cannot afford them. Without much publicity this campaign has become very popular, resulting in the recycling of over 500 tonnes of bottle lids and the purchase of 2259 wheelchairs so far. Plastic bottle lids are an important marine litter due to their abundance and small size, and this campaign significantly contributes to their reduction.

A different voluntary action campaign, which is also focused on raising awareness, is *'Trash Wall'*. In this practices, which is one of the five global best practices recorded in MARLISCO, individuals are encouraged to take photos of litter found on beaches, river banks, harbours and canals around the world and email them to the initiating organisation, Project Blue Sea. The pictures will eventually be used to create a digital 'trash wall' and accompanying educational material to raise awareness about the issue of marine litter. Since the campaign started in February 2011, Project Blue Sea has received over 800 photos and their collection keeps growing.

The remaining awareness-raising campaigns require no direct action by volunteers but rather aim at changing behaviour by highlighting the negative impacts of litter in the marine environment. One of these practices is the *'Campaign to reduce the distribution of free plastic bags'* already described in section 9.13. The other is the *'Clean beach campaign'* initiated by KIMO Denmark and Keep Denmark Tidy in the summer of 2011. This awareness-raising practice involved placing humorous signs on some popular Danish beaches, targeting cottage guests in the entire holiday destination and collecting marine litter and displaying it on the beach for the public to see. The campaign was repeated in the summer of 2013.

9.16. Working with schools

Children are a key target group to involve when it comes to sensitising the public about the issue of marine litter, not only because they are the next generation of decision makers but also because they have the capacity to inform and influence others in their immediate environment. The MARLISCO partnership recorded four practices that involve working with schools. One of them is the *'Devon waste education programme'* already described in section 9.5, whereas the other three come from the Black Sea, and specifically Bulgaria.

The Green Burgas Foundation, together with municipality officials and local schools, has been organising the *'My Black Sea' Campaign in Burgas*, which takes place on the 31st October (the International Black Sea Day) every year, since 2007. Numerous events involving school children are organised during the campaign, including beach cleanups in Burgas, sending messages to national government officials to sensitise them about the issue, holding discussions in the children's parliament, and organising exhibitions of children's works on the issues of the Black Sea.

Another best practice that is organised within the framework of the International Black Sea Day, and that involves similar activities, is *'Improving the ecological status of the Black Sea waters at the shores of Pomorie'*. In this best practice, students in the third and fourth grades of Pomorie schools participate in round table discussions on the pollution of the Black Sea and how young adults can influence decision makers to address it. Informational and educational campaigns are also organised, as are exhibitions and essay contests involving the students.

A one-off campaign to sensitise the public and reduce the amount of waste in the Black Sea was organised by the Miladinov Brothers School in Burgas. *'School activities to reduce waste in the Black Sea'* was organised within the framework of the World Eco-Schools Day. Activities took place between 29 October and 07 November 2012 and included classroom teachings on the environmental problems of the Black Sea, beach cleanups, exhibitions, posters, a concert and a conference dedicated to the World Eco-Schools Day and raising awareness about issues related to the Black Sea environment.



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9.17. Promoting social responsibility

The MARLISCO partnership recorded several innovative ways of addressing the marine litter problem by promoting social responsibility. The focus of the practices included in this section is to empower local communities and individuals to take actions against marine litter.

An interesting way of promoting social responsibility about marine litter is the *“My Beach” Initiative*, currently being implemented in the Netherlands, where a desirable, ‘hip’ stretch of beach is designated as a ‘My Beach’ area, identifiable by boards, beach flags and waste baskets. Visitors and bathers on this beach are not only required to clean up after themselves but to also pick up any rubbish that gets washed out to shore. The first two ‘My Beach’ areas were launched in June 2011 and today there are six such stretches of beach throughout the Netherlands, with plans to implement more.

‘The “Clean Coasts” Programme’ is about engaging communities in protecting Irish beaches, seas and marine life. It is comprised of two elements, Coastcare and the Green Coast Award. Coastcare, which facilitates community guardianship of adopted stretches of coastline, aims to establish and support Coastcare groups and to enhance the value of the coastline by reducing the impact of litter and other environmental damage. These aims are delivered through different types of activities, such as: beach clean-ups, the establishment, support and promotion of voluntary community action groups, and the provision of education opportunities to groups. The Green Coast Award is a symbol of environmental excellence and is awarded to coastal areas that achieve excellent water quality and are managed according to a 5 year beach management plan. The award puts an emphasis on community involvement and public participation in the management of the coastal area.

An initiative that approaches the issue of social responsibility from a different perspective is the *‘Maré Viva Programme’* in Portugal. This Programme aims to promote a healthy occupation of youth’s free time, give support to beach users, and provide useful information about tourism, environment and public health. The programme is open to young residents or students from Cascais, aged between 15 and 21, who have completed an Informal Course on Beach Protection, where they are taught communication techniques, legislation, health promotion, environment and tourism. The participants perform different activities such as maintenance of safety conditions, beach cleanups and distribution of beach ashtrays. They also provide environmental information and raise awareness about environmental issues, including the issue of marine litter.

The *‘ECOs-Loicais Programme’*, which runs on funding from the European Environment Agency, is another Portuguese practice that targets youth. This nation-wide best practice, active since 2009, aims to promote environmental citizenship, a more active and informed participation of young people in society and to raise awareness and participation in the prevention and resolution of environmental problems, helping to build a sustainable world. This project is directed to organised groups of young people who are challenged to plan an ECO-Action to prevent or solve an environmental problem. The oceans and coastal areas are one of the major topics covered in this programme in which actions consist, in general, of coast cleanups.

Other best practices that promote social responsibility and that have already been described are: *‘Responsible Snack Bars Project’* and the *‘Blue Lid Campaign’*.

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DISCUSSION

The 72 best practices recorded within MARLISCO offer a useful snapshot into what is happening around Europe to address the issue of marine litter, and their analysis still allows the deduction of some qualitative conclusions:

- There was a generally equal representation of Prevention, Mitigation and Awareness themes. In many cases Awareness was recorded together with Mitigation, demonstrating the complementary nature of these themes. This is likely to be the reason why campaigns (typically initiated for awareness-raising) were often recorded with 'Practice/Activity/Action' (such as beach cleanups) in the 'type of initiative' category. In some cases, Mitigation was the most commonly reported theme, and this could be attributed to the fact that partners might have decided to submit more mitigation activities, than practices organised for awareness-raising or preventive measures, since they involve more active participation.
- A relatively small number of practices (n=10) involving Policy/Regulation Implementation were recorded. Of these, some were implemented on a national scale by a national government and others implemented sub-nationally by a local authority. The ones that are implemented by national governments involve national implementations of EU directives, such as the MSFD directive, and some of them implemented the 'polluter pays' principle. It is perhaps significant to note that the proper implementation of policies and regulation is not only an effective way of reducing the targeted source of marine litter, but can also bring about an economic benefit for the government, which could be used to fund other related environmental activities.
- When it comes to the external funding of the best practices, the recorded information suggests that nationally implemented practices were more likely to be funded by the national government, whereas sub-nationally implemented best practices were more likely to be funded by a local authority. The EU directly contributed funds to six recorded best practices, although the EU could have also indirectly contributed funds to other best practices (i.e. through the funding of NGOs and other programmes).
- The recorded best practices suggest that NGOs, charities and other foundations have the most active role when it comes to initiating best practices for the reduction of marine litter. National governments are also the main initiators of nationally implemented best practices.
- Less than half of the 72 practices undertook data collection and recording, and even where data were collected this was not done systematically. The lack of available data is an important obstacle to addressing the issue of marine litter, but one that is now recognised and steps have been taken to rectify it.

The grouping of the best practices according to their characteristics (Chapter 9) gives an additional way of analyzing them. By looking at similar practices together, some trends about what makes them successful begin to emerge, as do some 'gaps' in terms of their implementation. What becomes immediately evident is that the most successful practices are those that involve key stakeholder groups, or the stakeholder groups that are mostly affected by the marine litter problem and will potentially have the most to gain by a reduction in marine litter, through a participatory approach, early on. The analysis also shows that key stakeholder groups can be the key actors in implementing solutions (i.e. the initiators or the implementing parties) and thus can adopt a sense of ownership of the problem and become committed to its solution. Regardless of the initiating body, practices that take a well-rounded and integrated approach, one that includes a range of activities, covers a variety of themes and involves as many actors as possible, can be very successful.

Policies and regulations are important tools for public administrations to use to reduce marine litter, and they can be very successful if they are properly implemented and enforced. The effects can be significant, particularly if it regards the implementation of regulations and policies that have a preventive focus. However, policies are not enough to raise awareness, deepen the understanding about the problem or emphasize the need to take action to a wider audience. Therefore, regulatory instruments must be complemented by awareness-raising actions or mitigation activities (such as beach cleanups), which can also have an awareness-raising character.

Practices that give an economic and market advantage (or disadvantage) to consumers or industry if they follow certain actions or choose certain products (the so-called economic and market instruments) are an additional



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complementary tool that can be used by public authorities to reinforce the message and, perhaps most importantly, to foster a change in behavior. The economic and market instruments that have been recorded in MARLISCO seem to have done so successfully. However, the smallest number of initiatives recorded in the project was in the Economic and Market Based Instrument category. This is unexpected, since economic or market incentives for commerce/industry or individuals encourage their active, voluntary involvement and give them a sense of ownership of the problem and its solution. Decision-makers might find it worthwhile to invest the necessary resources, both human and financial, to initiate more such instruments and encourage participation.

The marine litter problem is, at its core, a societal problem. It therefore requires a social change and a change in perceptions in order to be addressed. This is very effectively achieved by practices that empower the general public to take actions against marine litter. MARLISCO has recorded a number of very novel ways of encouraging citizen action and promoting social responsibility, ranging from adopting a stretch of beach to collecting specific waste items in order to offer something back to those that are less privileged. This is very encouraging since it shows that, when it comes to the issue of marine litter, the general public is not a passive receiver of information but can be an active player and a key part of the solution. Furthermore, the success and continuous expansion of these initiatives show that increasingly more people become aware of the problem and take action to solve it.

MARLISCO only recorded a relatively small part of the practices that are being implemented around Europe, but these best practices show that a great deal is happening to address the issue of marine litter and can serve as the starting point and a learning platform for anyone wishing to take action against this important environmental, economic and social problem. The analysis conducted in this report, and particularly the grouping by characteristics that is described in Chapter 9, will serve as the basis for the development of a Guide for decision-makers and key stakeholder groups on how they can successfully implement such practices in their areas.



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ANNEX 1 – THE TEMPLATE FOR RECORDING BEST PRACTICES

Brief Template for Recording Best Practices

MARLISCO Best Practices case studies, WP2: Processes and Solutions – moving towards best practice

Title:	
Scale of Implementation (name the region, country, area etc):	Please Select One
Commencement Date:	
Duration:	
Theme:	Prevention <input type="checkbox"/> Mitigation <input type="checkbox"/> Awareness (Cross-cutting) <input type="checkbox"/>
Type of Initiative:	Policy/Regulation Implementation <input type="checkbox"/> Practice/Activity/Action <input type="checkbox"/> Economic and Market Based Instruments <input type="checkbox"/> Campaign <input type="checkbox"/> Other (please specify) <input type="checkbox"/> _____
Brief Description (100 to 200 words). Please include the type of litter and/or sector targeted:	
Initiated by (Body):	
Involved Stakeholders:	
Funding/Financial Support (yes/no and by whom):	
Success Rate (i.e. did the project have an impact on e.g. the amount of litter, social awareness etc):	Please Select One
Project URL and Other Sources of Information (both primary and secondary):	
Supportive Documentation (please check all that are available. Nothing	Photos <input type="checkbox"/> Maps <input type="checkbox"/> Reports <input type="checkbox"/>

MARLISCO: Marine Litter in Europe Seas: Social Awareness and Co-Responsibility



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needs to be submitted now, only a photo below):	Excel spreadsheet/Other database <input type="checkbox"/> Other (please specify) <input type="checkbox"/> _____
Please Attach One Representative Photo:	
Case Study Prepared By ((name of person responsible for case study, organization and contact details)):	
Submitted by: (partner and name of person responsible for verifying the case study)	



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ANNEX 2 – OVERVIEW OF THE 72 BEST PRACTICES

Number	Title	Area of Implementation	Scale of Implementation	Duration	Theme(s)	Type of Initiative	URL Link	Referred to in Section
MEDITERRANEAN								
BP1/1A	Beach and Seabed Cleaning	Italy	Sub-national	one-off	Mitigation Awareness	Campaign		4.1, 4.5,
BP2/1B	Beach Cleaning 'Mare Pulito'	Italy	Sub-national	>5	Mitigation Awareness	Campaign	http://www.gionha.eu	4.5, 9.8
BP3/1C	Sea Cleaning Vessel 'Battello Spazzamare'	Italy	National	>5	Mitigation Awareness	Campaign Practice/Activity /Action	http://www.puntacampanella.org/il-battello-spazzamare-del-parco-marino-di-punta-campanella.asp	4.5, 9.10
BP4/1D	Seabed Cleaning - collection and disposal of litter at depth greater than 50m	Italy	Sub-national	0-1	Mitigation Awareness	Campaign	http://www.gionha.eu	4.5, 9.11
BP5/1E	Seabed Cleaning - collection and disposal of litter at depth up to 50m	Italy	Sub-national	2-5	Mitigation Awareness	Campaign	http://www.gionha.eu	4.5, 9.11



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BP19/7B	Operation Clean Coasts	France	Sub-national	>5	Mitigation Awareness	Practice/Activity /Action Campaign	www.mer-terre.org www.marseille-horizon.fr www.gipcalanques.fr	<u>9.8</u>
BP22/7E	Program of coordinated management of Marine debris on the shore of Marseille Provence Metropolis Urban Community	France	Sub-national	2-5	Prevention Mitigation Awareness	Policy/Regulation Implementation Practice/Activity /Action Campaign	www.mer-terre.org www.trionsnosdechets-mpm.fr	<u>4.4, 9.3, 9.6</u>
BP27/8A	Assessment of marine litter pollution of Slovenian coasts	Slovenia	National	2-5	Mitigation Awareness	Policy/Regulation Implementation		<u>4.4, 4.5, 9.3, 9.7</u>
BP28/8B	System of cleaning of the coast in Slovenia	Slovenia	National	2-5	Prevention Mitigation Awareness	Practice/Activity /Action		<u>4.5, 9.6</u>
BP34/12A	Municipal beach cleaning in Limassol	Cyprus	Sub-national	>5	Mitigation	Policy/Regulation Implementation		<u>4.3, 4.4, 4.8, 9.3</u>
BP35/12B	Indirect Fee System for the Collection of Ship Waste in Cyprus	Cyprus	National	>5	Prevention	Policy/Regulation Implementation		<u>4.3, 4.4, 4.5, 4.8, 9.3, 9.12</u>



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BP36/12C	Implementation of MARPOL Annex V in Cyprus	Cyprus	National	>5	Prevention	Policy/Regulation Implementation	http://www.mcw.gov.cy/mcw/dms/dms.nsf/mission_en/mission_en?OpenDocument	4.3, 4.4, 4.5, 9.12
BP37/12D	Seabed Cleaning in Cyprus (CYMEPA)	Cyprus	National	>5	Mitigation Awareness	Campaign	http://www.scubadiversclub-tey.com.cy/gallery/thumbnail.php?album=25&page=1 http://m.cyprus-mail.com/diving/divers-find-all-sorts-rubbish-bottom-sea/20120701	4.5, 4.6, 9.11
BP39/12F	Responsible Snack Bar Project	Spain	National	0-1	Prevention	Economic and Market Based Instruments	http://www.fundacion-biodiversidad.es/programas/amaplayas/decabgo-y-premios	3.8, 4.3, 4.4, 4.5, 9.4, 9.17
BP65/16A	At-sea recording of marine litter and implementation of targeted training programmes for the maritime industry	Greece	Regional	2-5	Prevention Mitigation Awareness	Practice/Activity /Action Campaign	http://www.helmepa.gr/	4.1, 9.1



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BP66/16B	Keep the Mediterranean Litter Free' Campaign	Greece	Regional	2-5	Mitigation Awareness	Practice/Activity /Action Campaign	http://www.mio-ecsde.org/articles.asp?cMC=&cID=6&aID=36	4.1, 4.4, 4.5, 9.1
BP68/17B	Sea surface marine litter cleaning operation	Turkey	Sub-national	>5	Mitigation	Practice/Activity /Action	Beşiktaş Municipality: http://www.besiktas.bel.tr/Default.aspx İstanbul Metropolitan Municipality: http://www.istac.com.tr/hizmetler/kiyi-ve-deniz-yuzeyi-temizligi.aspx İzmir Metropolitan Municipality: http://www.izmir.bel.tr/StandartPages.asp?menuID=1938&MenuName= Kocaeli Metropolitan Municipality: http://www.kocaeli.bel.tr/Content.aspx?ContentID=9833&CategoryID=1100	4.3, 9.10



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BP69/17C	STH Harem Beach Cleaning, Rehabilitation and Conservation Project	Turkey	Sub-national	>5	Mitigation Awareness	Practice/Activity /Action Campaign	http://sth.org.tr/ http://www.sthharem.org/	4.5, 9.11
NORTH EAST ATLANTIC								
BP7/2B	Protect a Wreck	Netherlands	National	2-5	Mitigation Awareness	Practice/Activity /Action Campaign	www.beschermeenwraak.nl www.ghostfishing.org	9.11, 9.13
BP8/3A	Return to Offender' Campaign	UK	National	>5	Prevention Mitigation Awareness	Practice/Activity /Action Campaign Other	www.sas.org.uk	5.4, 9.5
BP9/3B	Thames 21: River Thames and waterways in Greater London	UK	Sub-national	>5	Prevention Mitigation Awareness	Practice/Activity /Action Campaign	www.thames21.org.uk	9.9
BP10/4A	Bag It and Bin It - Don't Flush It Campaign	UK	National	>5	Awareness	Campaign	http://www.water.org.uk/home/resources-and-links/bagandbin www.bagandbin.org	3.6, 3.8, 5.3, 5.5, 9.15



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BP11/4B	Devon Waste Education Programme	UK	Sub-national	2-5	Prevention Mitigation Awareness	Practice/Activity /Action Campaign Other	http://www.recycledevon.org/kidszone/	5.4, 9.5, 9.16
BP13/5B	'My Beach' Initiative	Netherlands	National	>5	Prevention Mitigation	Practice/Activity /Action	http://www.noordzee.nl/	9.17
BP14/5C	Operation Clean Sweep - Plastic Pellet Loss Prevention Manual and Pledge	UK	National	2-5	Prevention Awareness	Practice/Activity /Action Campaign	http://www.bpf.co.uk/Sustainability/Operation_Clean_Sweep.aspx	9.13
BP18/7A	Awareness about cigarette butt pollution	France	Sub-national	1-2	Awareness Prevention	Campaign Practice/Activity /Action	http://www.facebook.com/sfalr	9.14
BP20/7C	Collection of waste at sea off the Atlantic Pyrenees	France	Sub-national	>5	Mitigation	Practice/Activity /Action	http://www.kostagarbia.fr/	9.10
BP21/7D	Monitoring marine litter in Brittany	France	Sub-national	2-5	Mitigation	Practice/Activity /Action	www.surfrider.eu https://www.facebook.com/SurfriderAntenneFinistere	9.7



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BP23/7F	Project blue line: programme of coordinated management of debris marine on the shore of Charente-Maritime	France	Sub-national	2-5	Prevention Mitigation Awareness	Practice/Activity /Action Campaign Other		9.5, 9.6
BP24/7G	Installation of a barrage at the Adour river for the interception and collection of waste.	France	Sub-national	>5	Prevention Mitigation	Practice/Activity /Action	http://www.institution-adour.fr/	9.9
BP25/7H	Integrated action plan for the cleaning of the channel coast	France	Sub-national	>5	Prevention Mitigation Awareness	Practice/Activity /Action Campaign	http://planete.manche.fr/collecte-raisonne-macro-dechet.asp#.UNCfU4aQnj4 http://planete.manche.fr/education-developpement-durable%20%283%29.asp#.UNCt7IaQnj4	9.6
BP29/9A	The Clean Coasts Programme	Ireland	National	>5	Mitigation Awareness	Practice/Activity /Action	www.cleancoasts.org www.facebook.com/CleanCoasts	9.17



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BP30/9B	The Plastic Bag Levy	Ireland	National	>5	Prevention	Policy/Regulation Implementation Economic and Market Based Instruments	http://www.environ.ie/en/Legislation/Environment/Waste/WasteManagement/FileDownload,21599,en.pdf http://litter.ie/system/survey_results/index.shtml	3.6, 5.4, 9.3, 9.4, 9.13
BP38/12E	Waste Minimisation Guide for Aquaculture by the SEPA	UK	Sub-national	>5	Prevention	Other	http://www.sepa.org.uk/water/water_regulation/regimes/aquaculture/marine_aquaculture.aspx	3.8, 5.4, 9.5
BP46/15A	Seabed Cleanup – “Desertas - Mar Limpo”	Portugal	Sub-national	2-5	Mitigation Awareness	Practice/Activity/Action	Press releases and information provided by the Natural Park of Madeira. (http://www.pnm.pt/index.php?lang=en)	9.11
BP47/15B	Blue Flag Portugal Programme	Portugal	National	2-5	Prevention Mitigation Awareness	Practice/Activity/Action Campaign	http://www.abae.pt/programa/BA/inicio.php	9.2



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BP48/15C	Campaign to reduce the distribution of free plastic bags	Portugal	National	2-5	Awareness	Campaign	Press releases and information provided NGO Quercus. (http://www.quercus.pt/)	5.3 , 9.2 , 9.13 , 9.15
BP49/15D	Cleaning of Alvor Estuary	Portugal	Sub-national	>5	Mitigation Awareness	Practice/Activity /Action	http://www.arocha.org/pt-pt/somos/que/amb/escol/esc2011.html	9.9
BP50/15E	Clean up the Atlantic	Portugal	Sub-national	2-5	Mitigation Awareness	Practice/Activity /Action	http://www.cm-cascais.pt/projeto/clean-atlantic	9.11
BP51/15F	Coastwatch Portugal Campaign	Portugal	National	>5	Mitigation Awareness	Campaign	http://coastwatch-coastwatch.blogspot.pt/ http://www.geota.pt/coastwatch/cw_portugal/index.html	9.2
BP52/15G	ECO-Locais Program	Portugal	National	2-5	Mitigation Awareness	Practice/Activity /Action	http://ecoslocais.lpn.pt/	9.17
BP53/15H	Gilão River Cleanups	Portugal	Sub-national	>5	Mitigation Awareness	Practice/Activity /Action	Information provided by Tavira Municipality. http://www.cm-tavira.pt/	9.9



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BP54/15I	Launch of paid reusable bags	Portugal	National	>5	Prevention	Practice/Activity /Action	http://www.pingodoce.pt/pt/servicos/responsabilidade-social/gestao-de-residuos/ Report: http://ir2.flife.de/data/jeronimo_martins/igb.html/content.php?bericht_id=1000001&lang=POR&pic=213	9.13
BP55/15J	Management Plan of Coastal Habitats, Cascais	Portugal	Sub-national	2-5	Mitigation	Practice/Activity /Action	http://www.emac-em.pt/default.aspx?lang=ing	9.6
BP56/15K	Maré Viva Program, Cascais	Portugal	Sub-national	>5	Prevention Mitigation Awareness	Practice/Activity /Action	http://www.geracao-c.com/conteudo.aspx?lang=pt&id_class=245&name=Mare-Viva http://www.cascaisatlantico.org/Programa-Mar%C3%A9-Viva.aspx?ID=2945 http://www.vodafone.pt/main/A+Vodafone/PT/Fundacao/Projectos/Iniciativas/Seguranca/mares_vivas.htm	9.17



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BP57/15L	Ocean Initiative in Portugal	Portugal	National	>5	Mitigation Awareness	Campaign	http://www.surfingviana.com/ http://www.initiativesoceanes.org/	9.2
BP58/15M	Programme of Coastal Cleaning Campaigns in Sesimbra	Portugal	Sub-national	>5	Mitigation Awareness	Campaign	http://espeleologia-neca.blogspot.pt/2011/01/campanhas-de-defesa-e-sensibilizacao.html	9.8
BP59/15N	Regular beach cleanups by the Cascais Municipality	Portugal	Sub-national	>5	Mitigation	Practice/Activity /Action Policy/Regulation Implementation	http://www.emac-em.pt/default.aspx?lang=ing http://www.emac-em.pt/artigo.aspx?lang=pt&id_object=52&name=Limpeza-de-praias	9.3
BP60/15O	Regulation of port reception facilities for ship-generated waste	Portugal	National	>5	Prevention	Policy/Regulation Implementation	Information provided by Ports of Setúbal (http://www.portodesetubal.pt/) and Lisbon (http://www.portodelisboa.com/).	5.4, 9.3, 9.12
BP61/15P	Ria Formosa Cleanups	Portugal	Sub-national	>5	Mitigation Awareness	Practice/Activity /Action	http://www.cm-tavira.pt	9.8



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BP62/15Q	Santo André Beaches Cleanups	Portugal	Sub-national	>5	Mitigation Awareness	Campaign	http://www.icnf.pt/cn/ICNPortal/vPT2007-AP-LagoasSAndre?res=1366x768	9.8
BP63/15R	Sea brigade project	Portugal	Sub-national	2-5	Mitigation Awareness	Practice/Activity/Action	http://brigadadomar.blogspot.pt/	9.8
BP64/15S	Waste Reception Point and distribution of waste bins to vessels of Cascais	Portugal	Sub-national	>5	Prevention Awareness	Practice/Activity/Action	http://www.emac-em.pt/default.aspx?lang=ing	9.12
BP71/18B	Marine Safety Awareness Courses	Denmark	Regional	>5	Prevention	Policy/Regulation Implementation	http://www.kimointernational.org/Marine-Awareness-Courses.aspx	5.1, 5.5, 9.1, 9.3,
BLACK SEA								
BP31/10A	Coastwatch Constanta	Romania	Sub-national	>5	Mitigation Awareness	Practice/Activity/Action Campaign		9.2
BP32/10B	Let's Do It, Romania!	Romania	National	2-5	Mitigation Awareness	Practice/Activity/Action Campaign	http://www.letsdoitromania.ro/	6.1, 9.2



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BP40/13A	'My Black Sea' Campaign in Burgas	Bulgaria	Sub-national	>5	Mitigation Awareness	Practice/Activity /Action Campaign	http://www.events.bg/bg/articles/view/My-Black-Sea-Campaign-1889/	6.6, 9.16
BP41/13B	School activities to reduce waste in the Black Sea	Bulgaria	Sub-national	one-off	Mitigation Awareness	Practice/Activity /Action Campaign	http://brmiladinovi.eu/?p=201	6.2, 6.6, 6.7, 9.16
BP42/13C	Port seabed cleanup by divers at Kiten	Bulgaria	Sub-national	one-off	Mitigation	Practice/Activity /Action Campaign	http://www.burgasnews.com/burgas/obshtestvo/57692-vodolazichistyat-dalbinite-nacherno-more-	6.2, 6.3, 6.6, 9.11
BP43/13D	Improving the ecological status of the Black Sea waters at the shores of Pomorie	Bulgaria	Sub-national	>5	Mitigation Awareness	Practice/Activity /Action Campaign	http://www.european-dwe.eu/index.php?page=proj5nachalo.html&subpage=proj1program.html&third=proj1akcii.html	6.5, 9.16
BP44/13E	Nessebar Port Seabed Cleaning	Bulgaria	Sub-national	one-off	Mitigation Awareness	Campaign	http://vashiatglas.com/news/view/5/1107/	6.2, 6.6, 9.11
BP67/17A	Blue Lid Campaign	Turkey	National	1-2	Awareness	Practice/Activity /Action Campaign	www.kapaktoplama.com www.tofd.org.tr	3.8, 6.1, 6.5, 6.6, 9.15, 9.17



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BALTIC								
BP26/2A	Fishing for Litter in Germany	Germany	Sub-national	2-5	Mitigation Awareness	Practice/Activity /Action	www.fishing-for-litter.de http://www.nabu.de/themen/meere/plastic/fishingforlitter/	7.2, 7.3, 7.4, 7.5, 7.6, 7.7, 9.10
BP33/11A	Cleanup of a beach near Rostock Harbour	Germany	Sub-national	one-off	Mitigation Awareness	Campaign	http://www.initiativesoceanes.org/index.php?lang=2	7.2, 7.3, 7.4, 7.6, 7.7, 9.8
BP70/18A	Clean Beach Campaigns	Denmark	National	2-5	Awareness	Practice/Activity /Action Campaign	Information on Keep Denmark Cleans homepage: http://www.holddanmarkrent.dk/article/aktiviteter_renstrand_11 Press release KIMO project (Danish): http://www.kimointernational.org/WebData/Files/KIMO%20Denmark/Pressemeddelelser/Invitation%20til%20presse%20-%20Esbjerg%20og%20Varde%202012.pdf	7.2, 7.3, 7.4, 7.5, 7.6, 9.15



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BP72/18C	Separation and recycling of materials from fishing trawl and nets	Denmark	National	>5	Prevention Mitigation	Practice/Activity /Action Other	http://www.fornyelsesfonden.dk/projektodb/0/24/608 http://www.frandsenindustri.dk/	7.2, 7.3, 7.4, 7.5, 7.6, 9.5, 9.13
EUROPEAN								
BP45/14A	BREF in Wastewater Treatment	European	European	>5	Prevention	Policy/Regulation Implementation	http://eippcb.jrc.es/reference/BREF/cww_bref_0203.pdf	3.7, 8.2, 8.3, 8.4, 8.8, 9.3, 9.13
GLOBAL								
BP12/5A	Kuna Yala Project, Lighthouse Foundation	Global	Global	>5	Prevention Awareness	Practice/Activity /Action Campaign	http://www.lighthouse-foundation.org/	8.1, 8.5, 8.8, 9.6
BP15/6A	Dive Against Debris, Project AWARE	Global	Global	>5	Mitigation	Practice/Activity /Action Campaign	http://www.projectaware.org	8.2, 8.5, 8.7, 9.11
BP16/6B	Trash Wall, Project Blue Sea	Global	Global	2-5	Awareness	Practice/Activity /Action	http://www.projectbluesea.de/	3.8, 8.2, 8.3, 8.5, 9.15



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BP17/6C	Waste Free Oceans Initiative	Global	Global	2-5	Mitigation Awareness	Practice/Activity /Action Campaign	www.wastefreeoceans.eu	8.2, 8.5, 8.6, 8.7, 9.10
BP26/71	Ocean Initiatives	Global	Global	>5	Mitigation Awareness	Practice/Activity /Action Campaign	www.initiativesoceane.com www.surfrider.eu	8.2, 8.5, 8.7, 9.2