*Pilot project: removal of marine litter from Europe's four regional seas*

# Regional Workshop Report
# Clonakilty and Castletownbere, Cork County, Ireland
# 23-24 October 2014

October 2014

# Table of Contents

# 1 Introduction

The regional workshop in Cork County, Ireland, took place on 23-24 October 2014. The first day took place in Clonakilty in the offices of the Irish Sea Fisheries Board / Bord Iascaigh Mhara (BIM). On the second day, the meeting continued in the fishing harbour of Castletownbere. The meeting also included an excursion to the fishing pier of Union Hall and the harbour of Castletownbere.

The objectives of the workshop were to:

- start-up a partnership on marine litter, between the public sector and the fisheries industry;
- identify a fishing for litter project as an industry-based solution to address marine litter;
- exchange experiences on marine litter collection and treatment in Ireland.

# 2 Day One

The first day of the workshop took place in Clonakilty in the offices of the Irish Sea Fisheries Board / Bord Iascaigh Mhara (BIM). The list of participants can be found in Annex 2 of this report. The 16 participants represented the public sector through the national department of environment (MSFD coordinator), BIM, the Cork County Council, the harbour masters of Castletownbere, Dingle and Union Hall, the Marine Institute and a representative of fisherman and aquaculture farmers. Two external speakers were invited: Tom Piper, representing KIMO UK and Jan Cools (Milieu Ltd., Belgium), representing the European Commission funded project MARELITT. A group photo (of part of the participants) is shown in Figure 1 below.


**Figure 1 Participants to day 1 of the MARELITT workshop in Clonakilty, Ireland. From left to right: David Millard (BIM), Teddy Browne (Cork County Council), Frank Fleming (Responsible Irish Fish), Ian Lawler (BIM), Catherine Barrett (BIM), Jan Cools (Milieu), Leonie Dransfeld (Marine Institute), Tom Piper (KIMO UK), Richard Cronin (Department of Environment, Community and Local Government) and Michael Murphy (Green Marine)**

The workshop was opened by Ian Lawler, Fisheries Development Manager (BIM) and continued with a series of presentations to set the scene and share experiences of marine litter in Ireland and Scotland. In the afternoon, a chaired discussion took place on initiating a marine litter removal programme and the activities in which it could engage. A summary of the presentations are described below.

## 2.1 Overview of the MARELITT project and objectives of the day (Jan Cools, Milieu Ltd, Belgium)

This workshop was organised by the European Commission funded project MARELITT. The expected outcomes of the projects and benefits for the participants were explained – one of the expected outcomes of MARELITT and objectives of this workshop is the initiation of a new marine litter removal project in Ireland. With respect to the new project, Jan offered support in drafting the business case for a new pilot project on marine litter removal.

## 2.2 Policy perspective on marine litter (Richard Cronin, Department of Environment, Community and Local Government)

Richard Cronin presented the policy context for marine litter. The prevailing policy framework on marine litter is directed by the EU Marine Strategy Framework Directive (MSFD) and the recently

approved regional action plan on marine litter in the North-East Atlantic by the OSPAR Convention. Under the MSFD, Ireland has just reported the monitoring programme on marine litter to the European Commission. In 2015, Ireland needs to report the Programme of Measures. In addition, Ireland also needs to contribute to the actions under the OSPAR regional action plan. Richard also noted that the successful implementation of the Blue Growth agenda is linked to the extent to which the marine litter problem is solved. He therefore asked for the support of the participants in tackling marine litter. Even though the source of these objectives is international policy rather than national policy, local solutions and actions are needed to make it work.

With respect to the new marine litter project to be initiated in Ireland, Richard emphasised the following considerations to:

- make consistent, comparable, scalable and transferable approaches for fishing;
- assess barriers at the local and national scale for fishing for litter; provide solutions;
- develop awareness-raising, capacity-building, iconic signs for fishing for litter, a good logo and distribute e.g. hats and T-shirts to volunteers;
- test alternative financing schemes.

## 2.3 Industry/fishermen experience of a successful Fishing for Litter Programme (Tom Piper, KIMO UK)

Tom Piper, the acting coordinator of KIMO Scotland and the coordinator of fishing for litter projects for 14 harbours in Scotland, presented practical experiences and lessons learned on fishing for litter. This presentation included the following insights:

- The biggest cost in fishing for litter projects are skip container hire and staff. Smaller costs relate to the project's waste disposal bags and dissemination and education activities.
- It is important to agree with the harbour master on the location to deposit bags: i.e. can vessels leave the bags anywhere on the quay, from where it is collected by harbour personnel, or at a specific location?
- Agree on the size of 'big' bags with vessel operators. Various types of boats have different needs and space limitations.
- About 52% of the collected waste was plastic – which is lower than the amount generally found in beach litter.
- Awareness-raising and 'buy-in' are essential aspects that can make fishing for litter projects successful.
- Recycling of nets when they are decommissioned is a major issue. The nets need to be stripped and sorted manually. Transport is costly and not all parts of the nets can be recycled – many pile up in the harbour or go to landfills.
- A 2010 report from KIMO on the 'economic impacts of marine litter' estimated that marine litter costs each boat an average of 19,000-22,000 Euros/year.

Tom also offered to share his practical experience in setting-up a fishing for litter project.

## 2.4 Marine Litter in Irish Groundfish Surveys (Leonie Dransfield, Marine Institute)

The results of the monitoring for marine litter in the Irish Groundfish Survey were presented. Small quantities were found, i.e. less than 1 kg/haul. In 55% of the hauls, no litter was found. However, plastics made up 35% of the waste found. About 50% of the litter was fishing-related; the other half was non-fishing-related. An occasional ghost net was fished-up. Pelagic marine litter is rare.

The results, however, need to be interpreted with care. The gear was not designed for marine litter collection and did not reaching the seabed. Furthermore, the sampling was made away from normal fishing sites.

With respect to the new project, Leonie would be interested to see if fishing vessels might pick up more marine litter – since they fish in commercial fishing sites and closer to the seabed.

## 2.5 MARELITT sampling on BIM Gear Trails (Catherine Barrett/ Pete Tyndall, BIM)

In May 2014, Castletownbere fishermen highlighted the problem of dumping waste gear. An article in 'The Skipper' voiced the frustration of fisherman at the continued practice by foreign boats landing at the ports, dumping their waste and old fishing gear near, or just outside, the harbour's mouth. Recently, a bag that weighed over 2.5 tonnes was fished up. The bag contained old warp, longline gear, gill nets, transatlantic cable, galley waste and broken fish boxes.

Recent gear trials on the South and South West Coast (by Pete Tyndall of BIM, as part of MARELITT) also revealed small amounts of marine litter, i.e. a maximum of 20 kg of waste. More research and operational practice is needed to clarify the extent of the marine litter problem in the local area. BIM is interested in developing a fisheries industry-led project on marine litter removal.

## 2.6 Aquaculture "Beach Clean" in Bantry Bay (David Millard, BIM and Teddy Browne, Cork County Council)

David Millard presented experiences from Bantry Bay on shoreline clean-up at aquaculture farms (shellfish and mussels). Bantry Bay attracts a lot of litter to its shores – the bay acts a funnel for prevailing winds. In this pilot project, shorelines at mussel farms were cleaned up. A factor for success in this project was a partnership between the local community and tourism, fisheries and mariculture industries. A major challenge to continuing the pilot project is funding. In the pilot project, 100 tonnes of waste was collected – with the waste transportation and processing costing about 250€/tonne. The presenter proposed a centralised fund to collect and treat marine litter. While it is acknowledged that operators are responsible for their own waste and, thus, have to pay for its collection and treatment, they also need to be encouraged to become involved in the voluntary collection of marine litter – for which, free disposal of waste should be offered. Challenges for fishing for litter projects include identifying the source of the waste, i.e. how do you show that fishermen/mariculture operators are not just disposing of their own waste?

The presentation made the following arguments for marine litter removal:

- better perception by the public if a mariculture farm is cleaned up;

- permit applications will be less likely to be rejected if waste is well managed;
- the tourism industry benefits, e.g. the new Wild Atlantic Way is attracting more tourists now.

The presenters are interested in developing alternative funding mechanisms to sustain marine litter removal.

## 2.7 Awareness raising for litter (Mary Stack, Cork County Council)

Mary Stack presented her experience of the SMILE Resource Exchange Network in raising-awareness on litter, developing business opportunities to save money and reduce waste and the use of signage and environmental award schemes.

## 2.8 Industry perspective on initiating an industry-based FFL Programme – needs, barriers and opportunities (Frank Fleming, RIF)

Frank Fleming presented the economic opportunities of a 'green' fishing industry. Responsible Irish Fish (RIF) is a new label that has been brought to the Irish market. The group behind the label aims to promote Irish fish caught in a responsible manner. RIF fish are now found in many supermarkets. An Environmental Management Scheme (EMS), which is used to accredit and certify the vessels that supply RIF-labelled fish, has been developed and is in place in 80 vessels. The section of the EMS that will deal with how vessels handle marine litter is still to be developed in a new project.

Frank is interested in developing the marine litter section of the EMS and to coordinate fishermen to participate in marine litter removal. A green vessel award scheme that would address marine litter, among other issues, is also of interest.

## 2.9 Chaired discussion

In summary, the following **challenges** were identified during the workshop discussions. These challenges are framed within a broader framework of waste management by the fisheries sector, and in harbours and smaller piers. The challenges are:

- better knowledge is needed on the marine litter to be removed;
- less than 25% of vessels in Union Hall use port reception facilities;
- few receptacles at smaller piers; upscaling is needed in fishery harbour centres;
- practices in different harbours and piers are inconsistent;
- a mismatch between vessel size and the type of port reception facilities;
- "National Fishery Harbours" or "Council/Municipal" managed piers each have different management/stakeholder structures which will need varying inputs, plans, resources and communication paths to participate in a Fishing for Litter Programme. Coordination between the various stakeholders will be challenging, i.e. harbour operators, regional and national authorities, fisheries industry, waste transportation and treatment – which is public or private depending on the location;
- transportation costs of marine litter is high;
- stripping and sorting derelict nets is labour intensive;
- untapped potential for recycling, especially the old fishing nets;

- landfill is still cost-effective and practical;
- low awareness and capacity with respect to marine litter removal;
- some subsidies and grants are available to set-up a project, but few funds are available to keep a project going. There is a need to identify funding schemes that will successfully engage the key stakeholders;
- public perception that fisheries and farming sector are polluters;
- How do you show that fisherman/mariculture farmers are not just disposing of their own waste? How to prove that fisherman/mariculture farmers are voluntary cleaning up marine litter? No need to pay if you are not the polluter;
- lack of easily-accessed pathways to appropriately dispose of fishing nets when they are no longer in use.

To address the above challenges, solutions were proposed and discussed. Participants selected the top three from a list of solutions compiled from the presentations and discussions beforehand. The focus was on solutions that could be initiated in the new marine litter project, and for which a partnership could be selected for its implementation. The number of participants that supported a particular solution is shown in brackets, below.

The agreed **solutions** are:

- Raising awareness, teaching and changing behaviour (11)
- Partnership between council, aquaculture, fisheries, and national authority (7)
- Environmental labelling for seafood to keep/enhance market share and meet the demands of consumers in "responsibly-sourced" seafood (5)
- Environmental award scheme for vessels (4)
- More receptacles for waste on quays and promotion of their proper use (3)
- Centralised funds for removing other (unallocated) incoming waste (3)
- Incentives to encourage free disposal of wastes voluntarily collected (3)
- Supporting the waste management chain: from collection at sea to waste treatment (2)
- Sustainable gear decommissioning scheme – including nets (2)

# 3 Day Two

On day two, a visit to the harbour of Castletownbere was organised under the guidance of the harbour master Cormac McGinley, followed by a wrap-up workshop. A group photo of the participants in the second day workshop is shown in Figure 2.


**Figure 2 Participants to day 2 of the MARELITT workshop in Castletownbere, Ireland. From left to right: Tom Piper (KIMO UK), Catherine Barrett (BIM), Jan Cools (Milieu), Majella Deasy (Dingle Harbour), Richard Cronin (Department of Environment, Community and Local Government), Cormac McGinley (harbour master Castletownbere) and Michael Murphy (Green Marine).**

The following information was provided:

- Fishermen pay an annual harbour fee that covers waste collection and treatment. Fisherman can unload waste, which is then processed by the harbour. The fee depends on the size of the vessel, not on the amount of litter brought back. Fishermen pay the same – irrespective of which type of waste is delivered, i.e. galley waste, marine litter or nothing at all.
- Annually 45,000 Euro is spent on waste management and 540m³ of gill nets has been recycled.
- Marine litter may already be brought into the harbour, but it is not designated as such. All unloaded waste is currently put together and considered as galley waste. In the project, we need to ask fishermen to separate different wastes on board. On the quay, the bags need to be identifiable – such that harbour staff can transport it to specific skip containers for marine litter. A bag with the projects' logo is used in the KIMO Scotland project.

- Every vessel needs to have a waste management plan. Large vessels need a stamped letter from the harbour master detailing the waste they bring in. If they don't unload waste, vessels need to demonstrate they have sufficient storage until their next stop.
- The sewage system is separated and does not directly discharge into sea. All goes first to a waste water treatment plant (WWTP) on site. Hence, for example, net residues that are deposited on the roads in the port will not end up as marine litter, but separated in the WWTP.
- Derelict nets are difficult to process, especially the metal cables, which have no other purpose and cannot be cut nor recycled and are, as a consequence, landfilled.

The harbour is interested in initiating a marine litter pilot project, and being involved in the full waste management chain from collection at sea to waste processing. They want more information about specific questions, i.e. which steps, what works, how much does it cost? Which financial model can be developed for sustainable implementation of a marine litter project?

Clarification is needed on how many vessels are to be involved, i.e. a few vessels that follow-up systematically, or the whole fleet, where possible, from which only occasional snapshots of collected marine litter can be taken. KIMO UK recommended including the whole fleet at the beginning as bringing vessels on at a later stage can be difficult. Involving the whole fleet facilitates the greater involvement of the fisheries sector and is likely to have a bigger impact on marine litter. Although, from a marine litter monitoring point of view, the focus on a few vessels may be more interesting.

# 4 Conclusions and actions

Following the discussion of potential solutions and the interests of the parties, the following objectives were identified for a new pilot project on marine litter removal. This pilot project will target the retention of marine litter during regular fishing trips, while also reducing the discharge of ship-sourced litter at sea.

The **objectives** for a new project are to:

- develop a multi-sectoral partnership on fishing for litter that would develop a business case on the benefits of marine litter removal for all partners;
- develop a consistent, comparable, scalable and transferable approach for fishing for litter. This will be developed and tested for two harbour centres (Castletownbere and Dingle) and one smaller pier at Union Hall;
- assess barriers at local and national scale for fishing for litter and provide solutions;
- develop awareness-raising and capacity building;
- test alternative financing schemes for marine litter removal;
- develop a business case on the benefits of marine litter removal for all parties, including costs, project planning, etc.

## 4.1 Actions

*Use or adapt the table below to document any actions agreed to by the participants.*

| | Who | Action | Due |
|---|---|---|---|
| **1.** | Jan | Outline business case based on the agreements in the workshops | 15/11/2014 |
| **2.** | Catherine | Elaborate business case and collect further information from stakeholders | 21/11/2014 |
| **3.** | All | Review business case by stakeholders | 30/11/2014 |
| **4.** | Jan/Catherine | Revise business case based on comments | 5/12/2014 |

# Annex 1: Workshop agenda

**Industry based solution to addressing the MSFD Descriptor, Marine Litter**
**DAY ONE: Context for a project proposal**
23 Oct 2014, 11am - 5.30pm
BIM Seafood Development Centre, Clonakilty

**10.30** *Coffee*

**11.00** Opening Introductions

Setting the Scene

- Overview of EU policy and the key objectives of the MARELITT project (Jan Cool, Marelitt)
- Current position and impacts of EU policy and the OSPAR NE Atlantic regional action plan on Marine Litter in Ireland (R. Cronin, Department of Environment, Community and Local Government)

On the water, on the Quay…..practical experiences around the table

- Industry/fishermen experience of a successful Fishing for Litter Programme (Tom Piper, KIMO UK)
    - roles and responsibilities of project partners for a successful Fishing For Litter (FFL) project
    - Planning and effective communication
    - Project set-up (retention, reception facilities, transport, treatment ,sorting and recycling of waste)
    - Identifying resources
    - Budget (capital Equipment, operating expenses, set-up costs)
    - Sources of funding

- Aquaculture: "Beach Clean" in Bantry Bay (Dave Millard, BIM and Teddy Browne, County Cork)
    - Project management/partners
    - Retaining and disposing of the material
    - Raising awareness
    - Budget and sources of funding

- Marine Litter in Irish Groundfish Surveys (Leonie Dransfield, Marine Institute)
    - Quantities and volume
    - International data collection
    - Collaborative opportunities

- MARELITT sampling on BIM Gear Trails (C. Barrett/P, Tyndall)
    - Quantities and volume

- Project "WIRED" – Net recycling/Derelict Gear Management (M. Mulligan/Mike Murphy)
    - Project partners
    - Project set-up
    - Preparatory work, reception facilities, transport, sorting and recycling of waste)
    - Industry participation, preparedness and communication

- Industry perspective on initiating an industry-based FFL programme – needs, barriers and opportunities (Frank Fleming, RIF)

**13.00** *Lunch*

**14.00** Chaired discussion on initiating a marine litter programme
- Concept
- Scope of area (intervention areas – participating vessels and ports, target areas)
- Scope of activities
- Role and responsibilities of potential partners

**15.30** *Tea break*

**15.45** Potential Project activities
- Intervention areas – participating ports and target areas
- Possible roles and responsibilities of project partners
- specific activities/actions
- Planning
- Project set-up
- Identifying resources, i.e. costs and budgets (co-financing opportunities, private funding ) Budget and sources of funding
- Wrap up facilitated by MARELITT

**17.30** *Close of Day One*

24 Oct 2014, 9am - 11am

**DAY TWO: Moving the project forward**

**09.00** Guided tour of Casteltownbere Fishery Harbour and relevant facilities

- Short overview on managing and monitoring waste in a National Fishery Harbour (Cormac Mc Ginley)

**10.00** Wrap up and any further comments/inputs to the Draft Project

# Annex 2: List of participants

## MARELITT Regional Workshop

## Day ONE: Clonakilty, 23 October 2014

| Name | Organisation |
|---|---|
| Richard Cronin | Department of the Environment, Community and Local Government |
| Tom Piper | KIMO UK |
| Jan Cools | Milieu Ltd, MARELITT representative |
| Teddy Brown | Cork county council |
| John Minihane | Cork county council |
| Mary Stack | Cork county council |
| Catherine Morrison | BIM |
| Ian Lawler | BIM |
| Catherine Barrett | BIM |
| Dave Millard | BIM |
| Huan Tan | BIM |
| Frank Fleming | Responsible Irish Fish / Fisherman |
| Michael Murphy | Green Marine |
| Nigel Collins | Dep. of Agriculture Food and the Marine; Harbour Master Dingle Harbour |
| Majella Deasy | Dep. of Agriculture Food and the Marine; Harbour Master Dingle Harbour; Dingle Harbour |
| Leonie Dransfeld | Marine Institute |

## Day 2: Castletownbere, 24 October 2014

| Name | Organisation |
|---|---|
| Richard Cronin | Department of the Environment, Community and Local Government |
| Tom Piper | KIMO UK |
| Jan Cools | Milieu Ltd, MARELITT representative |
| Teddy Brown | Cork county council |
| Catherine Barrett | BIM |
| Michael Murphy | Green Marine |
| Majella Deasy | Dep. of Agriculture Food and the Marine; Harbour Master Dingle Harbour; Dingle Harbour |
| Cormac Mc Ginley | Dep. of Agriculture Food and the Marine; Harbour Master Castletownbere harbour |