

# Communicating about marine litter: Insights from the European Marlisco Project

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Litter in the marine and coastal environment has emerged as a growing concern even at the highest levels of government. The Leaders' declaration at last year's G-7 summit stated "We acknowledge that marine litter, in particular plastic litter, poses a global challenge, directly affecting marine and coastal life and ecosystems and potentially also human health." (G-7 Leaders' declaration, 2015). It is important to communicate about marine litter to the public and other stakeholders, taking existing perceptions into account. We will summarise work undertaken within the EU FP7-funded MARLISCO project. MARLISCO ([www.marlisco.eu](http://www.marlisco.eu); Veiga et al., 2015) was a 2012-2015 science-in-society project with 20 partners in 15 countries across the four European Regional Seas: North-East Atlantic, Baltic, Mediterranean and Black Sea.

The aim of MARLISCO was to raise awareness of marine litter and to engage stakeholders, in particular the general public and young people. Specifically, we will discuss three key elements from MARLISCO.

First, we focus on general public data (n=1,133) from a pan-European survey. We found that the public recognise marine litter as an important problem and are highly concerned, have an understanding of causes and threats posed by marine litter, with wildlife impact rated highest, and hold differential perceptions about the responsibility, competence and motivation of various stakeholders.

Second, we report European data from a separate survey focusing on marine plastic litter, which constitutes around 70% of overall litter (OSPAR, 2007), and on solutions. While all respondents (general public, n=5,030) reported high concern, Bulgaria and Denmark were less concerned than other countries. There was agreement that reusing, reducing and recycling as well as educational approaches were better ways of dealing with plastic waste than landfill and incineration. We also asked people to state preferences for two solutions: 'cleaning up the beaches and oceans' or 'reducing the waste we produce'. Respondents were undecided which option would be more feasible but they thought reducing waste would be more effective. Personal norms, social norms, guilt feelings and perceived responsibility were the best predictors of individual behavioral intentions whereas age, gender and overall concern made smaller contributions.

Third, we draw on attempts to evaluate specific activities in the educational context, specifically a UK exhibition with citizen science elements for school children (Hartley, Thompson & Pahl, 2015), the MARLISCO European video competition for primary school children and the MARLISCO educator training. Some of these insights are summarised in a guide for influencing behavior (Hartley, Holland et al., 2015). While we believe there are advantages to this behavioural science-inspired method of quantifying and evaluating communication and engagement activities, we also realise its limitations. We hope for a constructive discussion of these with the audience. These data form the first focused assessment of social data regarding marine litter and marine plastics across Europe, providing quantitative data on understanding of the issue of marine litter, its impacts and the factors that lead to its accumulation, and comparing predictors of behavioural intentions. These insights form an important starting point for communications and engagement activities.

## References

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