

# OUR OCEAN NEEDS ACTIONS NOT PROMISES

TOWARDS A REGULATORY APPROACH TO  
PREVENT PLASTIC PELLET LOSS IN THE EU



#breakfreefromplastic

RETHINK PLASTIC



# INTRODUCTION

Plastic pellets are the second largest direct source of microplastic pollution to the ocean, and are known to cause serious harm to ocean life. This briefing, produced by Fauna&Flora International, the Environmental Investigation Agency and Fidra, outlines the urgent action that we recommend the European Commission should take to ensure that all pellets are handled responsibly across the plastic supply chain, drastically reducing this major source of ocean pollution.

Pre-production plastic pellets (or “nurdles”), powders and flakes are the raw material used to make virtually all plastic products.<sup>1</sup>As a result of poor handling and transportation practices, pellets are routinely spilt and lost to the environment at every stage of the plastic supply chain (e.g. during production, storage, loading and unloading, transport, and conversion into plastic products, including recycling). According to global estimates, by weight pellets are the second largest direct source of microplastic pollution to the ocean,<sup>2</sup>where they are known to cause serious harm to ocean life.<sup>3,4</sup>

A recent report estimates that up to 167,431 tonnes of plastic pellets are lost to the environment annually in the European Union (EU).<sup>5</sup>Pellets have been recorded on the coastline of every European country checked by volunteers (see Figure 1), with numerous documented hotspots of pellet pollution near industrial sites.<sup>6</sup>Despite the significant contribution to marine plastic pollution, policymakers have been slow to propose or develop regulatory solutions to address pellet loss. Pellet loss is also frequently overlooked in efforts to establish a circular plastics economy.

# SOLUTIONS

Dramatically reduced pellet pollution can be achieved by implementing best practice to minimise risk of pellet spills at each stage along the plastic supply chain, including remedial measures to clean up and dispose of pellets where spills occur. Many low-cost best practices have already been developed in the form of Operation Clean Sweep (OCS), which was pioneered by the plastic industry in 1991 and has been endorsed by Plastics Europe.

<sup>7</sup>However, OCS is a voluntary scheme with one-off lifetime membership, low uptake across the supply chain, lack of independent auditing, lack of annual reporting on implementation, and lack of monitoring and evolution of the best practices. As a result, large-scale pellet pollution continues to occur even after companies have signed up to OCS, and without a regulatory obligation there are insufficient incentives in the industry to drive change voluntarily:

- ✗ No financial incentives, because pellets individually have an extremely low value.
- ✗ No reputational incentives, because pellet pollution is not evident in the finished product, so consumer pressure does not exist.
- ✗ No legal incentives, as there is no legal obligation to implement and comply with best practices.

# THE ROLE OF THE EUROPEAN UNION

The European Strategy for Plastics in a Circular Economy commits the EU to consider “measures to reduce plastic pellet losses”, identifying a “certification scheme along the plastic supply chain” (referred to as a “supply-chain approach”) as a policy option.<sup>8</sup> A supply chain approach was later identified by a European Commission-funded report as by far the preferred policy option for preventing pellet pollution because it is:<sup>9</sup>

## EFFECTIVE IN POLLUTION REDUCTION

Achieves a  
**95% reduction**  
in pellet pollution, equivalent to  
**600,000 tonnes**  
of plastic pollution by 2035.

## COST-EFFECTIVE

Estimated annual cost per tonne of pellet pollution prevented is  
**EUR 954,**  
compared to  
**EUR 1,394,**  
for other policy options explored

## TIME-EFFICIENT Minimises administrative burden

for Member State authorities, who would only need to oversee a select few private accreditation bodies and independent auditors who would undertake the facility visits.

## NOTHING NEW

Supply chain approaches are a familiar concept to brands and suppliers, with successful examples for illegal timber under the **EU Timber Regulation** and sustainable biofuels under the **EU Renewable Energy Directive** already in place.<sup>10</sup>

## GLOBALLY FAIR

By focusing on plastic products placed on the **EU market** regardless of where they are made, **obligation to implement best practice** applies throughout the supply chain without disadvantaging EU-based companies, thereby **helping to reduce pellet pollution** beyond EU borders and spearheading **industry-wide transformation**.



Tackling plastic pellet pollution must be a key priority for policymakers in efforts to eliminate plastic pollution and achieve a truly circular economy.

As a matter of urgency, we recommend that the European Commission introduce necessary legislative measures based on a supply chain approach to ensure that all pellets are handled responsibly across the plastic supply chain.

# 2414 HUNTS AROUND THE WORLD

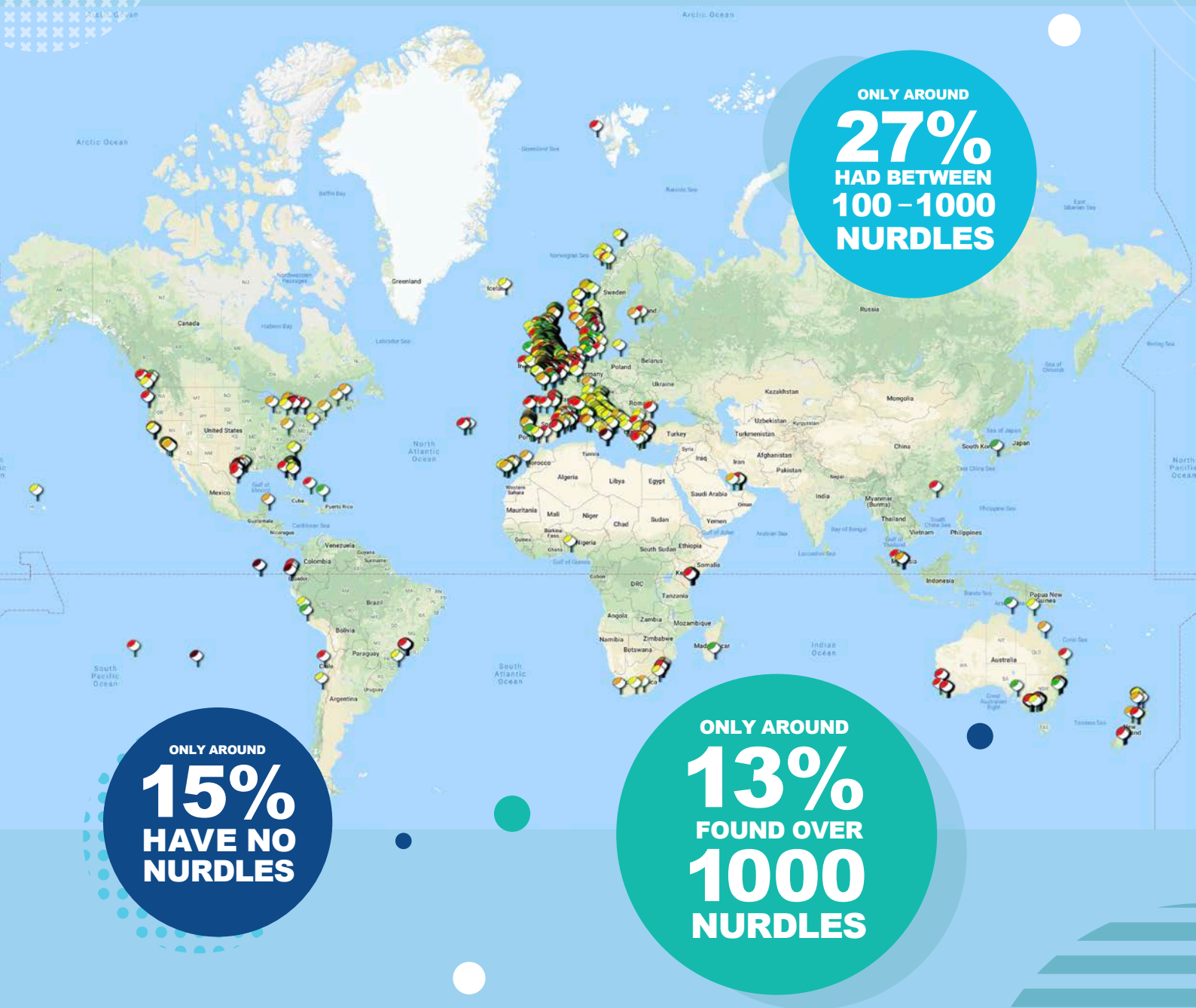


Figure 1. Fidra's citizen science initiative "The Great NurdleHunt" demonstrates that pellets have been found on all European coastlines where volunteers have looked for them and that there are pellet pollution hotspots near industrial hubs.

Data source: [www.nurdlehunt.org.uk](http://www.nurdlehunt.org.uk)

# RECOMMENDED FEATURES OF AN EU PELLET REGULATION

The main features of any EU Pellet Regulation should include:



## OBLIGATION

Economic operators placing pellets or plastic products on the EU market must ensure best practice management systems are in place and applied throughout the supply chain to prevent pellet pollution.



## BEST PRACTICE MANAGEMENT SYSTEMS

These systems would be made up of a series of best practice measures and controls to prevent pellet pollution, including requirements for annual reporting and regular third-party auditing and verification.



## MONITORING ORGANISATIONS

Formally recognised by the Commission to undertake required monitoring, including regular evaluation of operators and notification to the authorities of significant or repeated failure by operators to meet requirements.



## COMPLIANCE AND ENFORCEMENT

Competent authorities carry out checks at regular intervals on operators to ensure compliance and on monitoring organisations to verify continued fulfilment of their function.

FOR ADDITIONAL GUIDANCE AND MORE DETAILED RECOMMENDATIONS, PLEASE CONTACT:

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## Supported by:



## END NOTES

<sup>1</sup> Including bio-based, compostable and so-called biodegradable plastic

<sup>2</sup> Eunomia (2016) Plastics in the Marine Environment

<sup>3</sup> Rochman, C. M., Hoh, E., Kurobe, T., & Teh, S. J. (2013). Ingested plastic transfers hazardous chemicals to fish and induces hepatic stress. Scientific reports, 3.

<sup>4</sup> Ryan, P. G. (1988). Effects of ingested plastic on seabird feeding: evidence from chickens. Marine Pollution Bulletin, 19(3), 125-128

<sup>5</sup> Eunomia and ICF (2018) Investigating Options for Reducing Releases in the Aquatic Environment of Microplastics Emitter by (But Not Intentionally Added In) Products, pp. 14-15, 45 and 127.

<sup>6</sup> <https://www.nurdlehunt.org.uk/take-part/nurdle-map.html>

<sup>7</sup> PlasticsEurope(2017) PlasticsEurope Operation Clean Sweep® 2017 Report

<sup>8</sup> European Commission (2018) Annexes to the Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: A European Strategy for Plastics in a Circular Economy, pp.2 –3

<sup>9</sup> Eunomia (2016) Plastics in the Marine Environment

<sup>10</sup> Regulation (EU) No 995/2010 laying down the obligations on operators who place timber and timber products on the market