

Implementation of the Marine Strategy Framework Directive and upcoming Position Paper on Microlitter



TG Marine Litter Georg Hanke, Luis Ruiz-Orèjon, Marco Palma European Commission JRC Small particles, big concerns: Marine Microplastics revisited European Parliament, 6.12.2023

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Joint Research Centre

What is Microplastic?

Microlitter is anthropogenic material (see definition of marine litter*) smaller than 5 mm in the longest dimension. This includes Microplastics, often understood as anthropogenic polymers, and has no lower size limit ("nanoplastics").

Where does Microplastic in the environment come from?

- Physical degradation of macro/meso litter in the environment
- Intentional addition of microplastics to products and their release
- Abrasion/release from products during use (e.g. textiles, tires)



It is important to consider the interlinkages of litter/plastics across different size classes!

*'any persistent, manufactured or processed solid material discarded, disposed of or abandoned in the marine and coastal environment' (UNEP, 1995)



Microlitter in the Marine Strategy Framework Directive

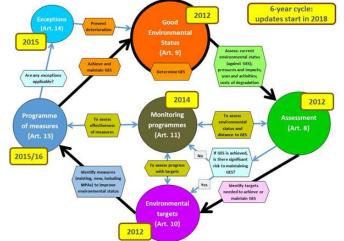
The Marine Strategy Framework Directive 2008/56/EC is the environmental pillar of the EU Maritime Policy (DG ENV)

Monitoring, Assessment and Measures provided for 11 Descriptors of the Marine Environmental Status

Close collaboration with neighbouring Regional Sea Conventions in shared Marine Basins and with EEA

MSFD Descriptor 10: "Properties and quantities of marine litter do not cause harm to the coastal and marine environment"

Commission Decision EU 2017/848 provides details on the provisions





Microlitter in the MSFD

The MSFD provides for

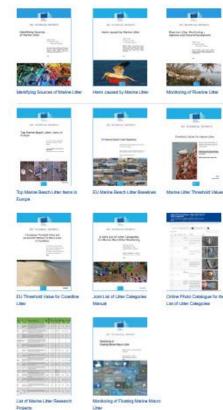
- Monitoring of Microlitter in different environmental matrices (Beach/Coastline, Sea Surface, Sediment, Biota)
- Assessment of Microlitter against agreed Threshold Values
- Mitigation measures* against Microlitter

*Mitigation Measures are related to specific sources of litter across size classes, at EU level, they include specific measures against the release of intentionally added microplastics (Restriction C(2023) 6419), measures against litter from Single Use Plastics (EU) 2019/904, Fishing Gear, Ships (EU) 2019/883, etc.

MSFD Technical Group on Marine Litter

- Technical Group under the MSFD CIS
- All EU MS + Regional Sea Conventions, EC, EEA, EMSA, ad hoc experts
- Linked to Scientific Communities (Floating Macro Litter, Seafloor Macro Litter, Micro Litter, JPI Oceans)
- Providing agreed guidance, discussing approaches, preparing Baselines, Threshold Value setting, etc.
- Information exchange platform on marine litter relevant topics

- Website for sharing outcome:
- https://mcc.jrc.ec.europa.eu/main/dev.py?N=41&O=433





Guidance for the Monitoring of Marine Litter

In response to the recognised need to harmonise methodologies for marine litter monitoring across all size classes, TG ML prepared and published in 2013 a guidance document.

EU MS experts, with Regional Sea Conventions and the scientific community, coordinated by JRC, have been collaborating to update and improve the guidance.

During the guidance development, upcoming recommendations have been available to MS in real-time.

On 12.12.2023 the updated guidance will be published.





Microlitter data collection

Following a data call to EU MS (2021), Microlitter data has been submitted to EMODnet

Data from 1691 surveys of surface floating microlitter by Manta Trawl have been received and managed by EMODnet

The dataset is being analysed in order to derive environmental baselines of microlitter pollution in the marine environment

Note: JRC has also been analysing microlitter data (ca. 100 surveys from 200 publications) from scientific publications, collected through the AWI Litterbase.



EMODnet



European Marine Observation and Data Network

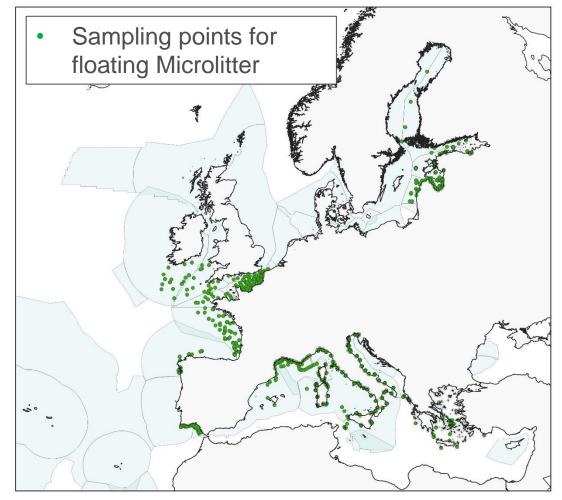




Floating Microlitter Data from EU MS

Ongoing data analysis of **1691** surveys

- Not yet data from all MS received
- Spatial temporal coverage analysed
- Max. ca. 11 million particles/km²
- Average ca. 0.3 million particles/km²
- Data Quality scrutiny required
- Baseline under development
- 15.12.2023 next TG ML meeting

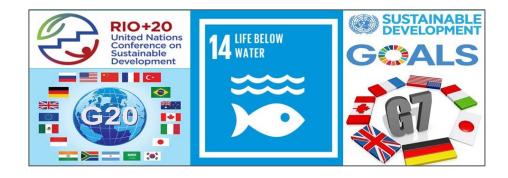


8• Upcoming: Threshold Value development, Trend Assessments,



The Global Dimension

UNEA 5 Global Treaty on Plastic Pollution



- Negotiations ongoing, Europe as a key player in monitoring methodologies
- Yokohama Workshop August 2023 (lead by Japan and EU projects)
- Confirmation of holistic approach, i.e. the need to tackle litter across matrices and size ranges
- Active coordination to enable comparable monitoring of surface floating microlitter at global level (Commitment by Japanese MOEJ)
- Close involvement of JRC and EMODnet



JPI Ocean Projects 2016-2018



- BASEMAN
- EPHEMARE
- PLASTOX
- WEATHER-MIC

- Close collaboration with 1st round of 4 JPI Ocean Projects on Microlitter
- Real-time acquisition of scientific output into policy support
- Projects leads in direct collaboration within TG ML
- Collaboration partially beyond project end
- Crucial input for guidance development



JPI Ocean Projects 2020-2023



- i-plastic
- ANDROMEDA
- microplastiX
- RESPONSE
- HOTMIC
- FACTS

- Confirmation of collaboration with JPI Oceans in 2023
- Setting-up of active exchange process
- Extraction of relevant research output
- Close collaboration with EU MS experts and RSCs in outlining open challenges
- Contributing to drafting of TG ML Position Paper to derive way forward



Still open challenges (examples)

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- Develop Sampling Strategies across marine environmental matrices (e.g. surface water versus sediment monitoring, the role of total polymer analysis)
- Link with freshwater environment and other matrices, as well as supporting the Zero Pollution Action Plan
- Detailed understanding of (micro)litter pathways "source to sink", to enable their modelling, tracking and targeting
- Tackling residual topics, such as analysis of specific polymers (e.g. tyres)
- Quality Assurance/Quality Control, including the availability of purposedesigned reference materials and proficiency testing schemes
- Development of approaches to set Threshold Values (considering the precautionary principle)



TG ML Position Paper

The way forward

- Draft outline of Position paper is available
- Discussion within TG ML for outline confirmation and contributor identification (15.12.2023)
- Discussion and drafting process (supported by wiki platform for online collaboration)
- Dedicated meetings/workshops if needed
- Presentation of outcome to MSFD GES and MSCG working groups
- Publication of TG ML Position Paper within 2024



Thank you



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