



Understanding better microplastics and identifying how to address the issue

Module 3: Unintentionally released microplastics and secondary microplastics

14th June 2022



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Introduction : the challenge of microplastics and the ongoing global and regional initiatives

Magali Outters, *Policy Team Leader*

Recap from Module 2 (24th May 2022)



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- Political frameworks addressing microplastics

- Primary microplastics:

- Intentionally added: in cosmetics, detergents, paints, etc.
- Unintentionally released:
 - ✓ Pellets, flakes and powder
 - ✓ from tyres, textiles, etc.

- Secondary microplastics:

- Those resulting from the fragmentation of larger plastics already released in the environment.

Module 2

Module 3



Estimation of amounts, measures and their effects,
views and position from different stakeholders



Starting point



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UNEA5.2 resolution “End plastic pollution: Towards an international legally binding instrument”



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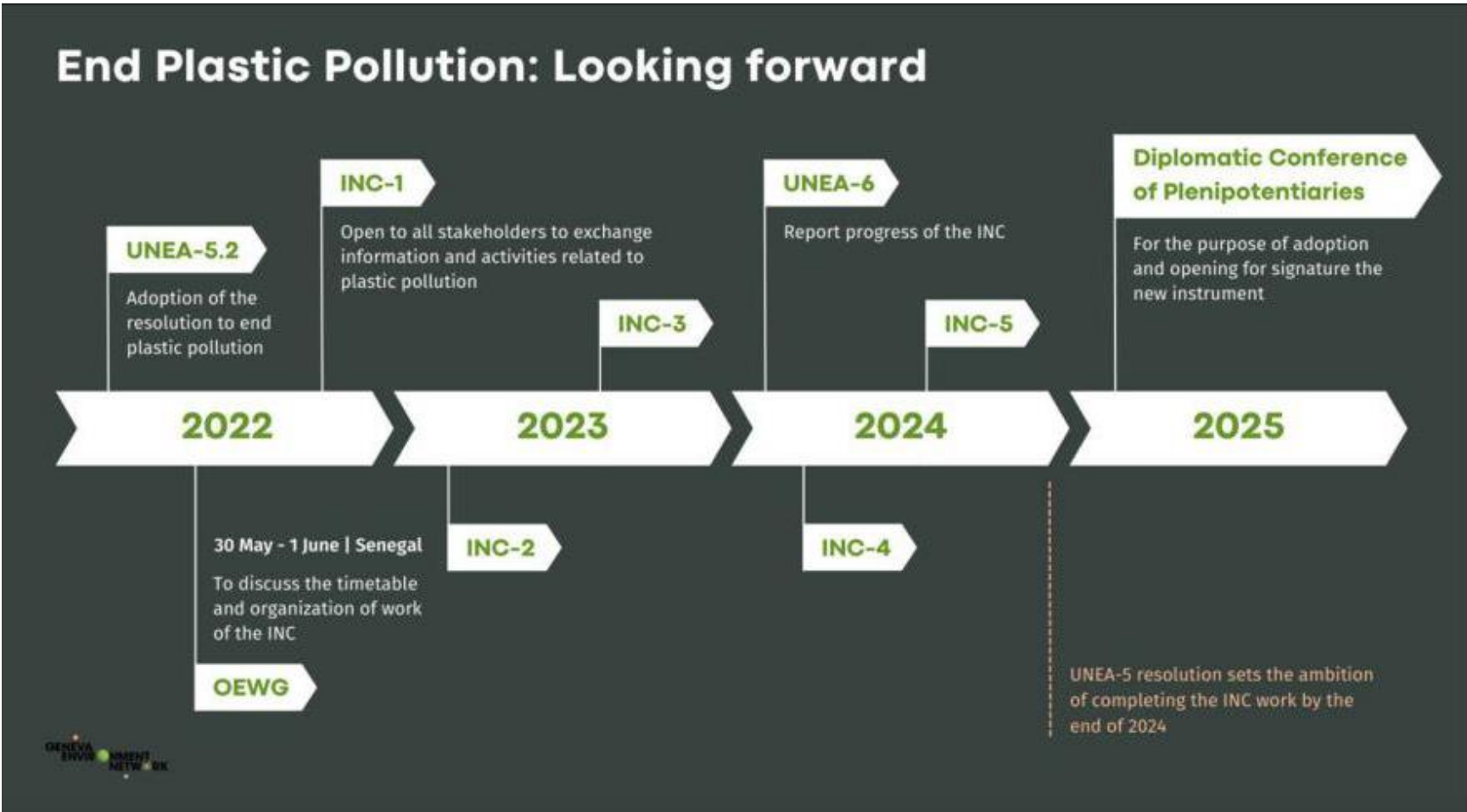
<https://wedocs.unep.org/bitstream/handle/20.500.11822/38522/k2200647> - unep-ea-5-l-23-rev-1 - advance.pdf?sequence=1&isAllowed=y



Timeline



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Agenda Module 3

Measures on secondary microplastics	Pedro Fernández <i>WES NKE (MedWaves)</i>
The role of national authorities in addressing microplastics: the case of Spain	Marta Martínez-Gil <i>Spanish Ministry for the ecological transition and the demographic challenge</i>
Unintentionally released primary microplastics: state of the art and focus on tyre wear	Lucy Eggleston <i>MedWaves External expert</i>
Microplastic pollution from textile consumption in Europe	Lars Mortensen <i>European Environment Agency</i>
Q&A and discussion	Moderated by P. Fernández
Evaluation	
Wrap up and closing	Anis Ismail <i>WES Environmental Expert</i>



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Measures on secondary microplastics

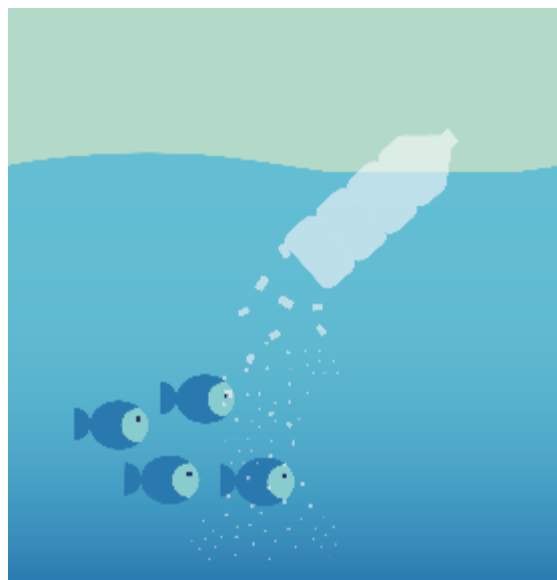
Pedro Fernández, *WES NKE*





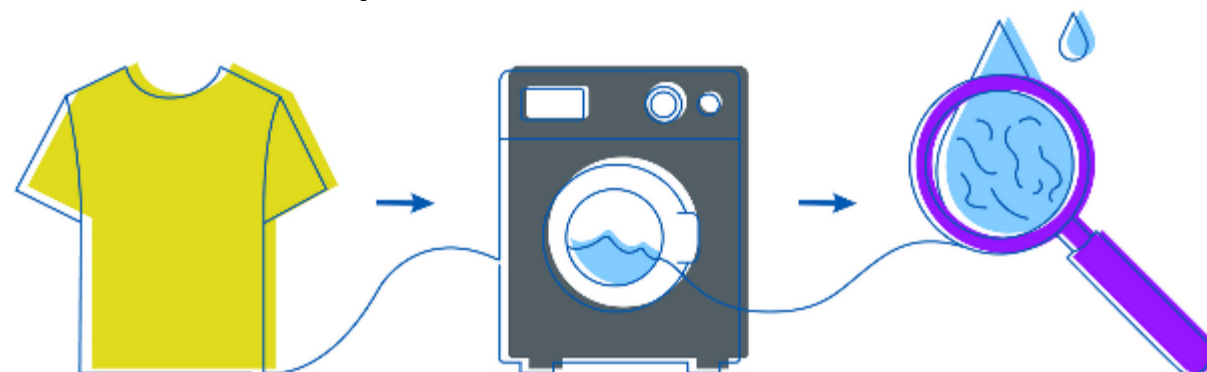
Definition of secondary microplastics

“small pieces of plastic derived from the breakdown of larger plastic debris, both at sea and on land”



Large plastic item IN nature

Not the same:
Released in nature as microplastic (e.g.
Textile fibres): **unintentionally release of
microplastics**



Order of magnitude



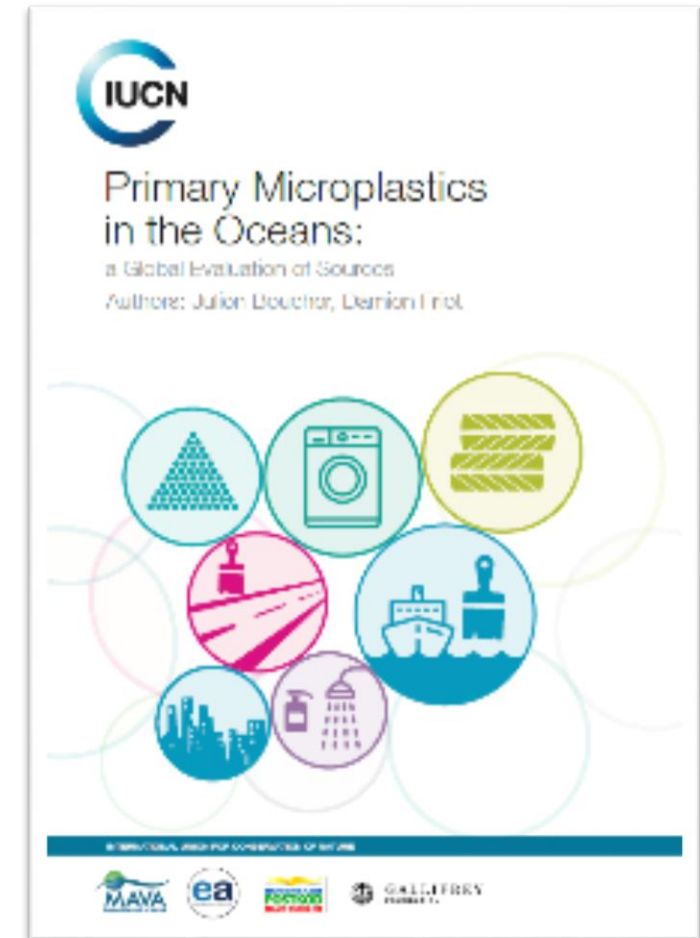
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“we conclude that between 15% and 31% of all plastic in oceans could originate from primary sources”



69-85% of microplastics in the oceans are secondary microplastics

<https://portals.iucn.org/library/sites/library/files/documents/2017-002-En.pdf>

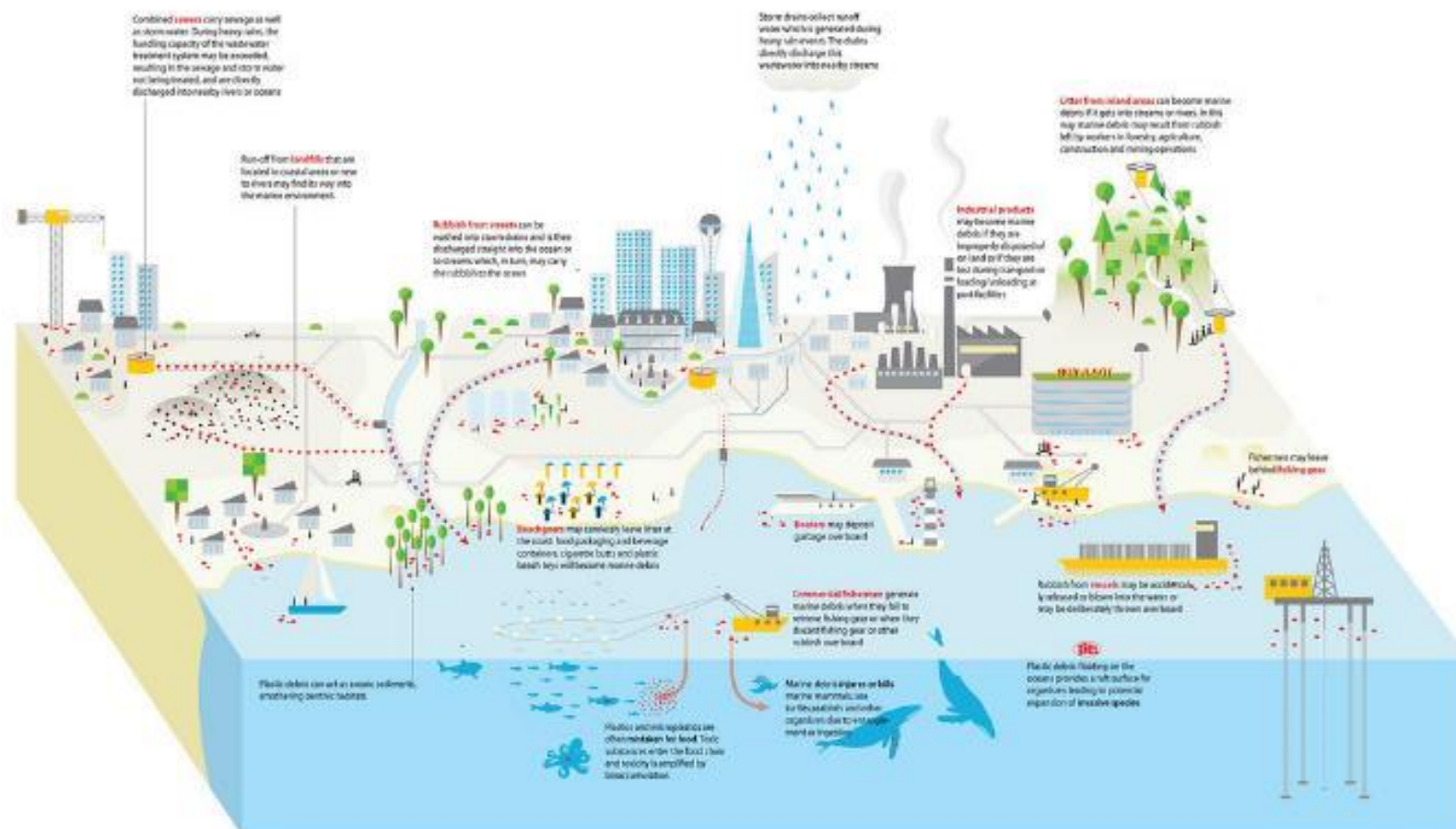




Sources & pathways of secondary microplastics

- Land-based sources
 - Municipal solid waste
 - Sewage
 - Tourism and recreation
 - Agriculture
 - Etc.
- Sea-based sources
 - Fisheries and aquaculture
 - Shipping
 - Etc.

Plastic debris in the ocean: a multiplicity of sources and pathways

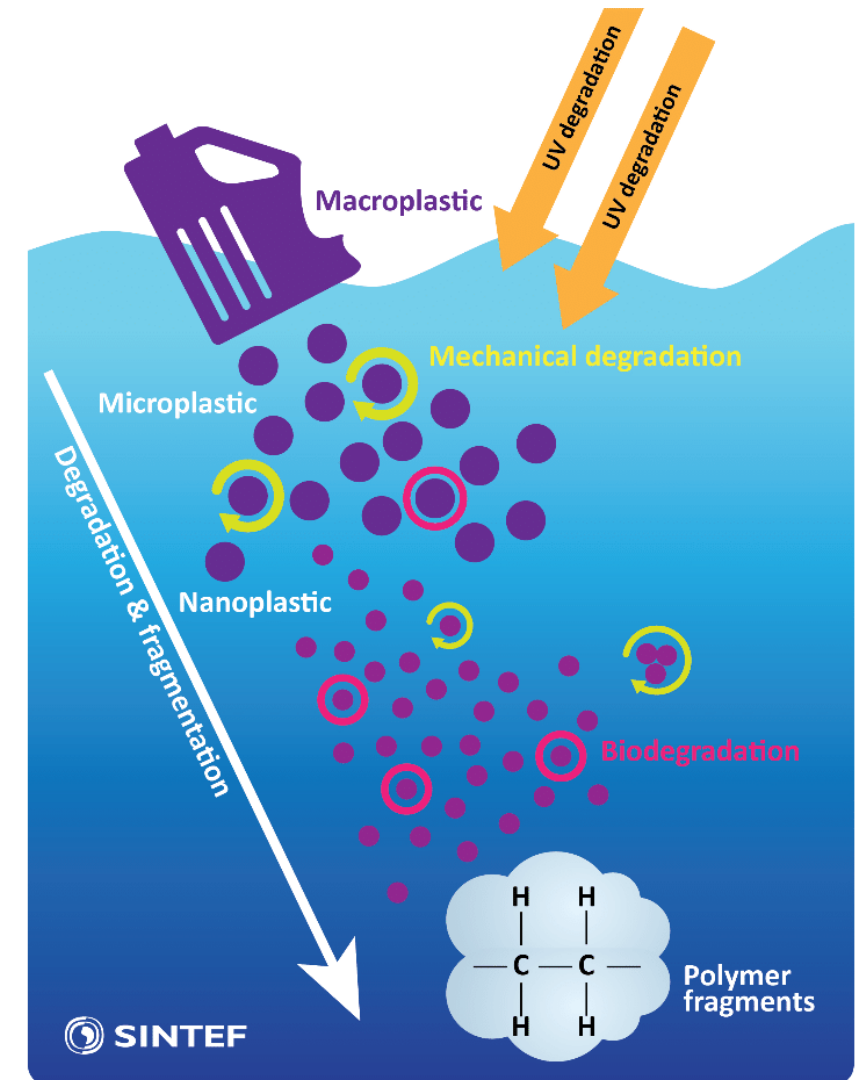


Fragmentation and degradation process



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- ▶ In all environmental compartments, but differently
- ▶ The degradation of plastics is defined as the process that induces changes in the polymer properties (deterioration of functionality) due to chemical, physical or biological reactions.
- ▶ Depending upon the nature of the causing agents, polymer degradations have been classified as thermal- (heat), photo- (sunlight), oxidative- (oxygen), hydrolytic- (water), mechanical- (stress), and bio- (microorganisms) degradation.



Prevention measures



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Prevention of secondary microplastics =
prevention of (macro)plastic waste in all
sources&pathways



The Mediterranean context



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- 2nd UfM Ministerial Meeting on Environment and Climate Action
- The UfM's 2030 GreenerMed Agenda



- COP22 (December 2021, Antalya)
- Programme of Work (PoW) 2021-2022

- Regional Guidelines on measures to phase out Single-Use Plastic items

→ Tackling SUPs

- Upgraded Regional Plan for Marine Litter Management in the Mediterranean

→ All sources (and not only plastic)



Guidelines to tackle single use plastic products in the Mediterranean



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<http://www.cprac.org/en/news-archive/general/guidelines-to-tackle-single-use-plastic-products-in-the-mediterranean-region-a->

Single-use plastic products to be tackled in priority in the Mediterranean

GROUP OF ITEMS	ITEMS
Packaging	Bags
Smoking-related	Cigarette filters
Food and beverage packaging	Drink bottles, caps and lids
	Crisp packets and sweet wrappers
On-the-go food and beverage packaging	Cutlery, plates and trays
	Straws and stirrers
	Drinks cups and cup lids
	Food containers including fast food packaging
WC flushed items	Sanitary applications, including cotton buds, wet wipes and sanitary towels
Personal protective equipment	Masks and gloves



Guidelines to tackle single use plastic products in the Mediterranean

Feasibility of measures in the Mediterranean context

		Information campaigns	Voluntary agreements	Mandatory labelling	EPR - including litter clean-up costs coverage	Specific requirements on product design	DRS	Sales restrictions / measures for adoption by public authorities	Consumption levies	Bans
Smoking Related	Cigarette filters	●	●	●	●	●	●	●	●	●
Food and beverage packaging	Drink bottles, caps and lids	●	●	●	●	●	●	●	●	●
	Crisp packets and sweet wrappers(lids)	●	●	●	●	●	●	●	●	●
On-the-go food and beverage packaging	Cutlery, plates and trays	●	●	●	●	●	●	●	●	●
	Straws and stirrers	●	●	●	●	●	●	●	●	●
	Drinks cups and cup lids	●	●	●	●	●	●	●	●	●
	Food containers including fast food packaging	●	●	●	●	●	●	●	●	●
WC flushed items	Cotton buds	●	●	●	●	●	●	●	●	●
	Sanitary towels	●	●	●	●	●	●	●	●	●
	Wet wipes	●	●	●	●	●	●	●	●	●
Pack.	Bags	●	●	●	●	●	●	●	●	●
Personal protective equipment	Masks	●	●	●	●	●	●	●	●	●
	Gloves	●	●	●	●	●	●	●	●	●

Prevention of single-use plastics: WES regional training (early 2021)



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The problematic
of single-use
plastics /
**La problématique
des plastiques à
usage unique**



Responses to
single-use
plastics/
**Réponses aux
plastiques à
usage unique**



Feasibility and
impact of
measures in the
Mediterranean/
**Faisabilité et
impact des
mesures en
Méditerranée**



Implementation of
measures and
Regional
Guidelines/**Mise
en oeuvre des
mesures et
directives
régionales**





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Thank you for your attention!

