



The growing threat of marine litter

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Photo: Thomais Vlachogianni

MIO-ECSDE a network of networks

WHO WE ARE

We are a non-profit Federation of over 130 Mediterranean NGOs for Environment and Sustainable Development

WHAT WE DO

We act as a technical and political platform for the intervention of NGOs in the Mediterranean scene

OUR MISSION

Our mission is to protect the Natural Environment and Cultural Heritage and promote Sustainable Development in a peaceful Mediterranean



MIO-ECSDE MAIN LINES OF ACTION TO COMBAT MARINE LITTER



ML DEFINITION

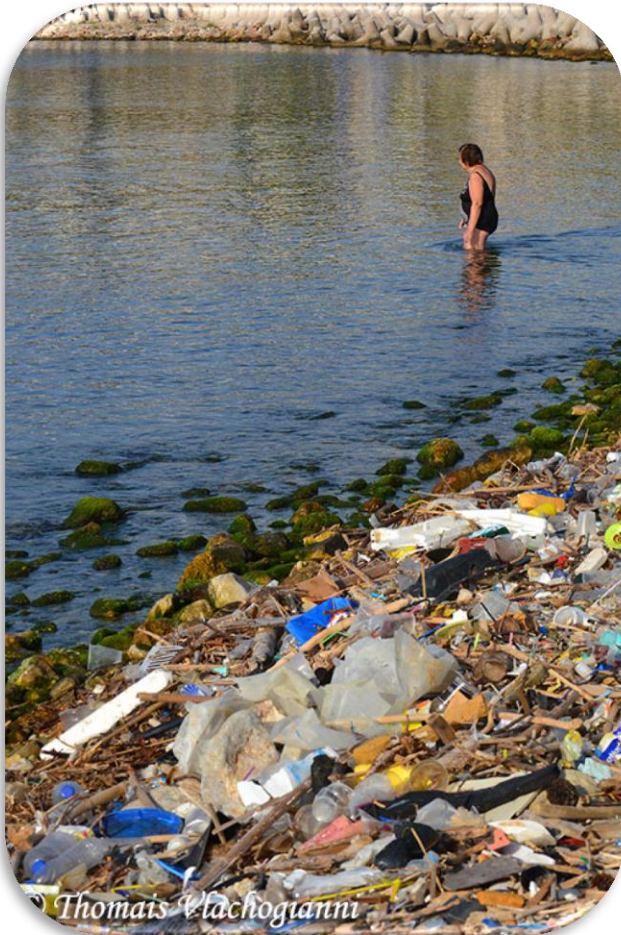
Marine litter is any persistent, manufactured or processed solid material discarded, disposed of or abandoned in the marine and coastal environment
It may be visible (**macrolitter**), hardly visible or even invisible (**microlitter**)...



Photo: Thomais Vlachogianni

MARINE LITTER

A GROWING PROBLEM OF GLOBAL CONCERN



Marine litter impacts on wildlife and ecosystems, ecosystem services, human livelihoods and wellbeing



Marine litter a symptom of our unsustainable production and consumption patterns

Litter from land sources finds its way to the sea via rivers, drains, sewage and storm water outlets or when blown by winds, or even swept with the tide.

Sea-based

offshore mining

shipping

fisheries and aquaculture

Land-based

tourism and recreational activities

discharges of untreated municipal sewage

industrial outfalls

poor waste management

WHAT DO WE KNOW?

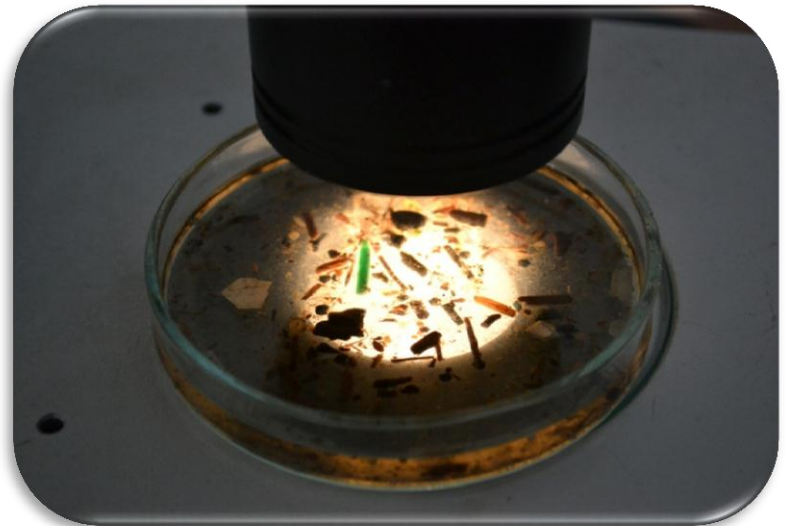
- ✓ Marine litter is **ubiquitous** in the coastal and marine environment and their abundance is increasing;
- ✓ **Plastics** consistently rank as being the most abundant type of marine debris on a global scale;
- ✓ Marine litter poses a threat to wildlife and ecosystems with impacts varying from **entanglement** and **ingestion**, to **bio-accumulation** and **bio-magnification** of toxics either released from plastic items or adsorbed and accumulated on plastic particles; facilitation of **introduction of invasive alien species**; **damages to benthic habitats** and communities (e.g. through abrasion of coral reefs from fishing gear, disruption of colonies, reduced oxygenation or 'smothering' of communities)
- ✓ Marine litter **impacts ecosystem services, human livelihoods** and **wellbeing**;

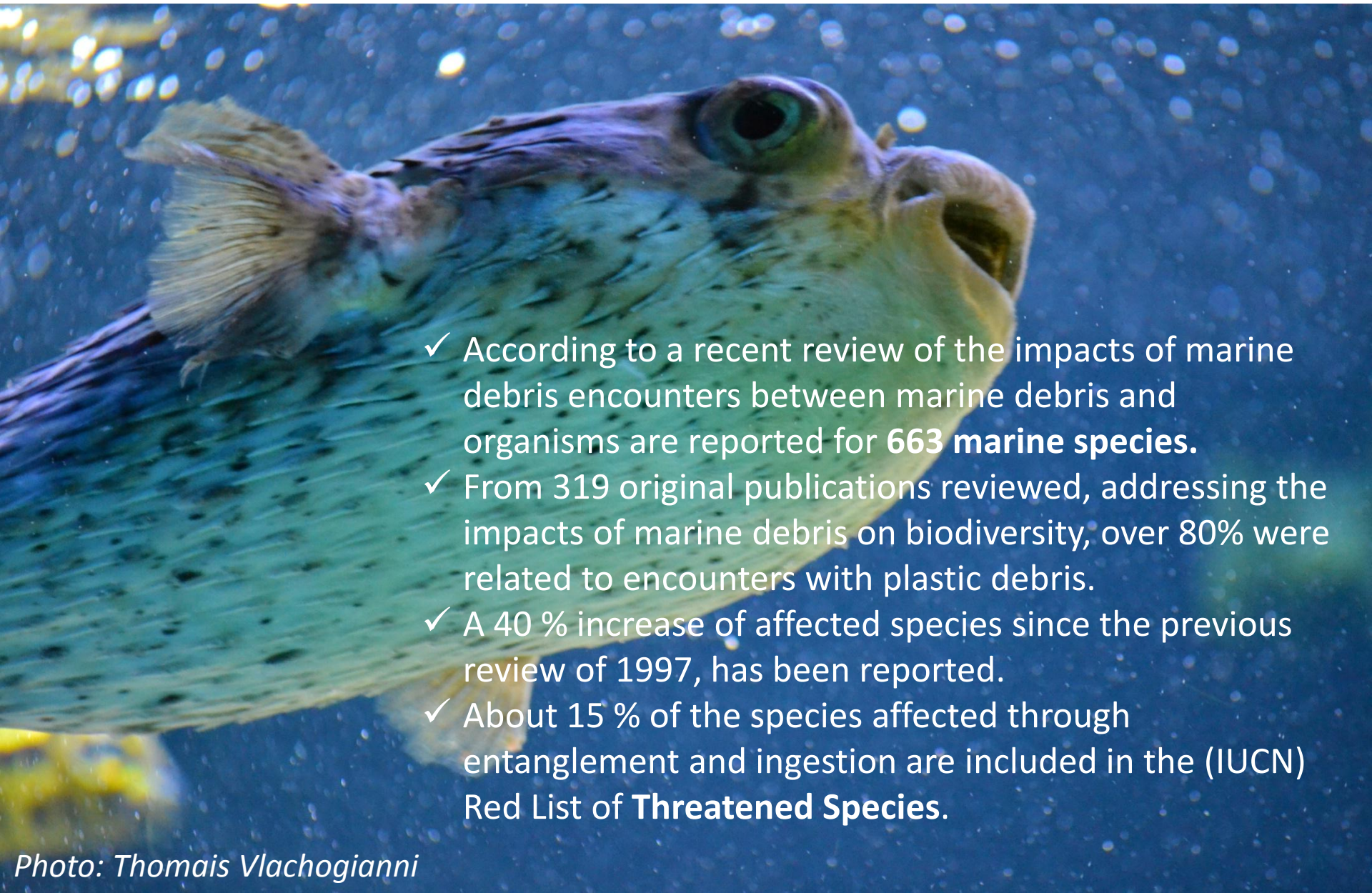
THE EMERGING THREAT OF MICROPLASTICS

- ✓ Microplastics are part of the overall plastic marine litter problem, generated by our plastic-addicted societies and the mismanagement of plastics and plastic waste.
- ✓ Their abundance is increasing;
- ✓ They cannot be removed from the marine environment in significant quantities;
- ✓ They are ingested by large variety of organisms, with potential adverse effects that vary from physical damage of their digestive tract to toxic effects from inherent contaminants leaching from microplastics, or extraneous pollutants, adhered to microplastics.



Photos: Thomais Vlachogianni





- ✓ According to a recent review of the impacts of marine debris encounters between marine debris and organisms are reported for **663 marine species**.
- ✓ From 319 original publications reviewed, addressing the impacts of marine debris on biodiversity, over 80% were related to encounters with plastic debris.
- ✓ A 40 % increase of affected species since the previous review of 1997, has been reported.
- ✓ About 15 % of the species affected through entanglement and ingestion are included in the (IUCN) Red List of **Threatened Species**.

Impacting negatively vital economic sectors:

Tourism

Fisheries

Aquaculture

Navigation

Bringing losses to:

Individuals

Enterprises

Communities

KEY STEPS OF A SUCCESSFUL PROBLEM SOLVING PROCESS – MARINE LITTER

WHERE ARE WE?



• Identification of the problem

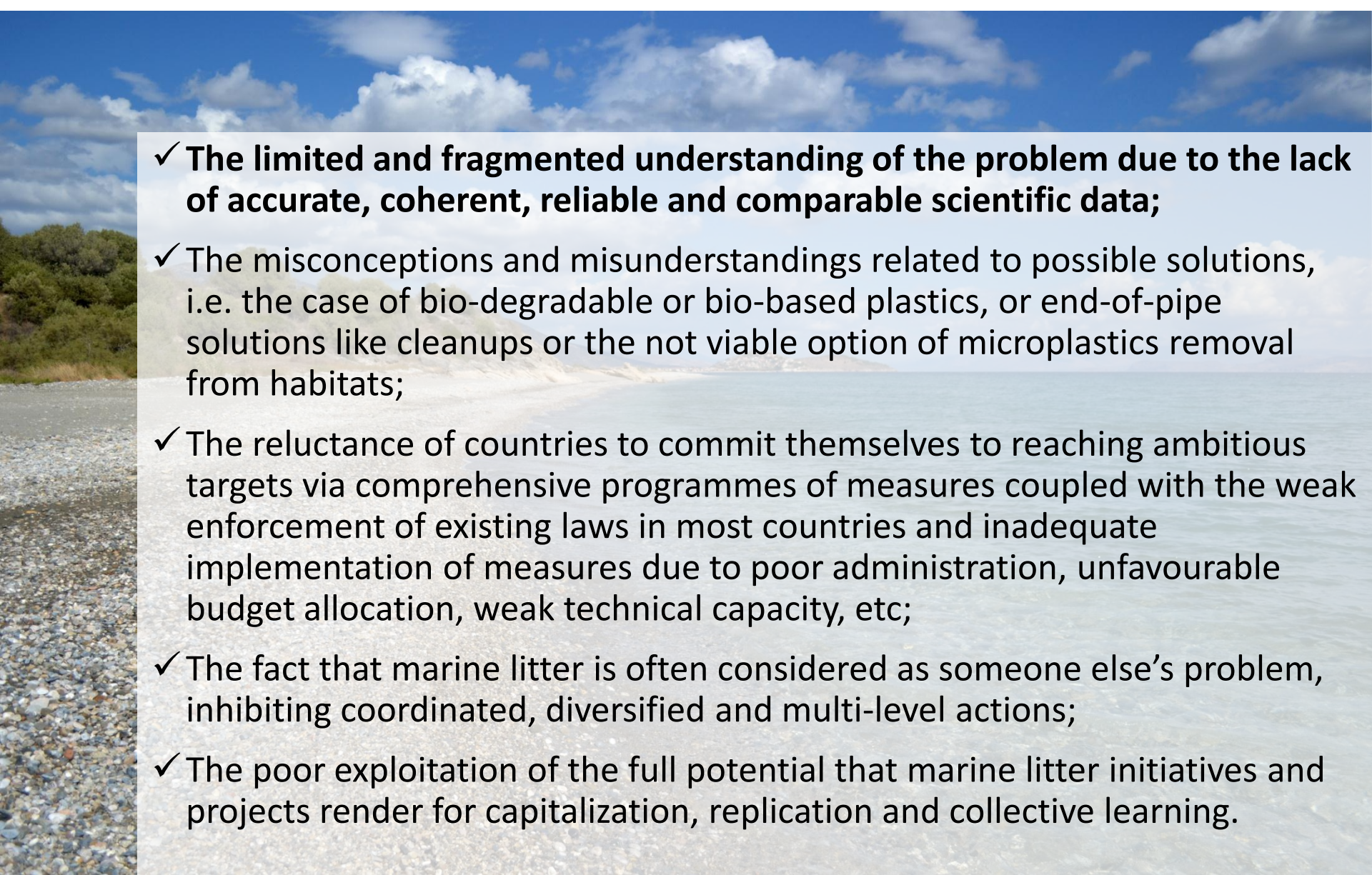
• Understanding the problem

• Identification of possible solutions

• Selection of the appropriate solutions

• Putting solutions into action

KEY CHALLENGES & IMPLICATIONS TOWARDS TACKLING **MARINE LITTER**

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- ✓ **The limited and fragmented understanding of the problem due to the lack of accurate, coherent, reliable and comparable scientific data;**
 - ✓ The misconceptions and misunderstandings related to possible solutions, i.e. the case of bio-degradable or bio-based plastics, or end-of-pipe solutions like cleanups or the not viable option of microplastics removal from habitats;
 - ✓ The reluctance of countries to commit themselves to reaching ambitious targets via comprehensive programmes of measures coupled with the weak enforcement of existing laws in most countries and inadequate implementation of measures due to poor administration, unfavourable budget allocation, weak technical capacity, etc;
 - ✓ The fact that marine litter is often considered as someone else's problem, inhibiting coordinated, diversified and multi-level actions;
 - ✓ The poor exploitation of the full potential that marine litter initiatives and projects render for capitalization, replication and collective learning.

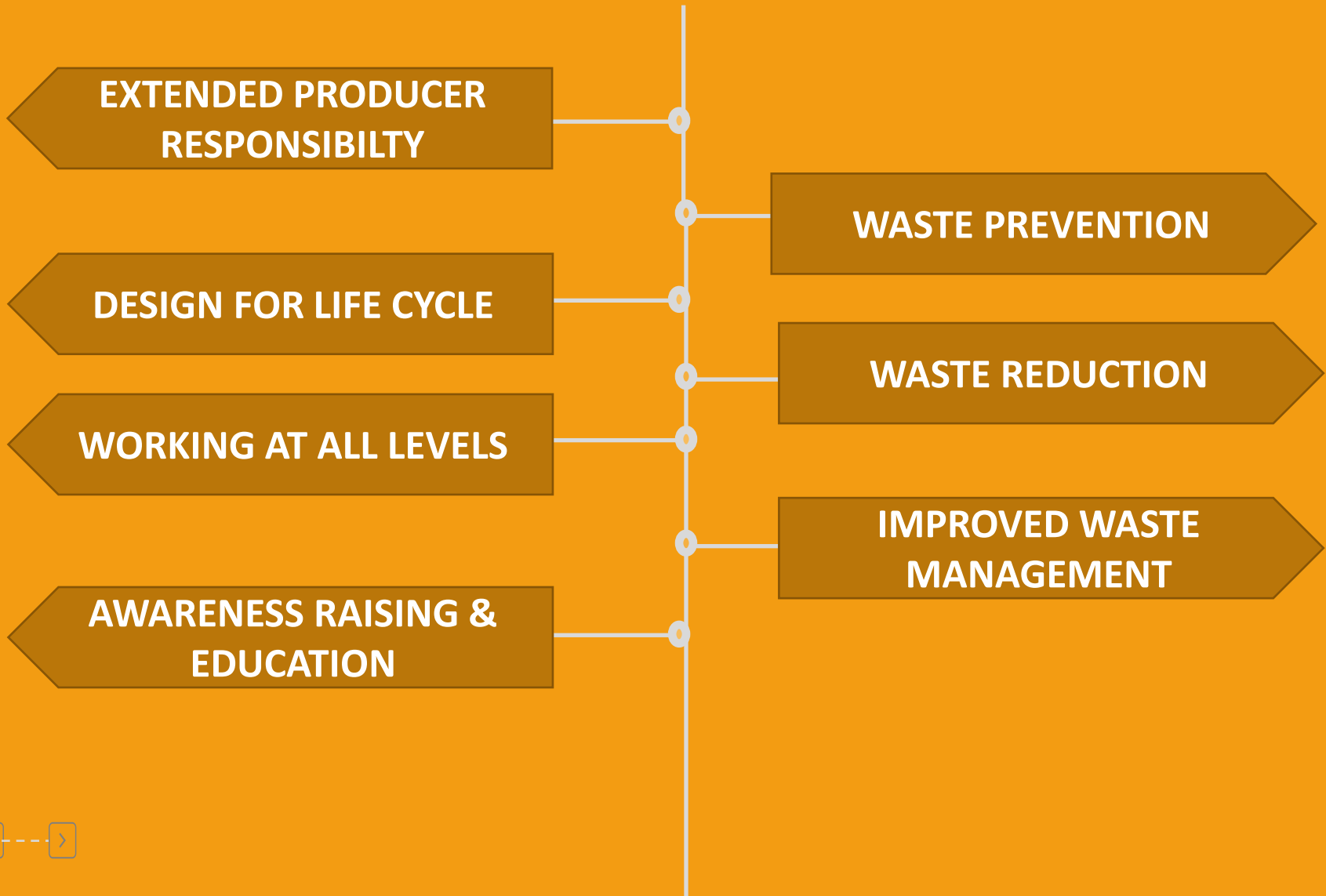
Combating ML at Europe & European Regional Seas

The MSFD is the most relevant legal instrument that provides a platform for action related to marine litter and allowing for a Europe-wide approach to tackle this rapidly growing environmental, social and economic problem, as well as the European Regional Seas Action Plans for ML

There is a number of other EU policy frameworks and related legislation with varying potential on tackling marine litter, such as:

- the Waste Framework Directive
- the Packaging and Packaging Waste Directive,
- the Landfill Directive
- the Port Reception Facilities Directive
- the Water Framework Directive
- the Bathing Water Directive
- the Urban Waste Water Treatment Directive
- the Industrial Emissions Directive
- the Cosmetic Products Regulation, etc.,

ACTIONS TO TACKLE MARINE LITTER





An inconvenient truth

As scientists call for more research on global environmental changes in an effort to gain a better understanding of the human induced implications for all of life on Earth, it remains an inconvenient truth that if the world had acted upon the knowledge that the scientific community already produced, the state of many ecosystems would be different today.

...a better understanding of the science-policy-society nexus is what provides the enabling environment and creative power to address the complex challenges that society faces towards sustaining the vitality and integrity of socio-ecological systems...

STOPPING MARINE LITTER TOGETHER

Photo: Thomais Vlachogianni

For more than twenty years
joining forces & building bridges
in the Euro-Mediterranean area



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