EU Plastics strategy and its relevance towards marine litter

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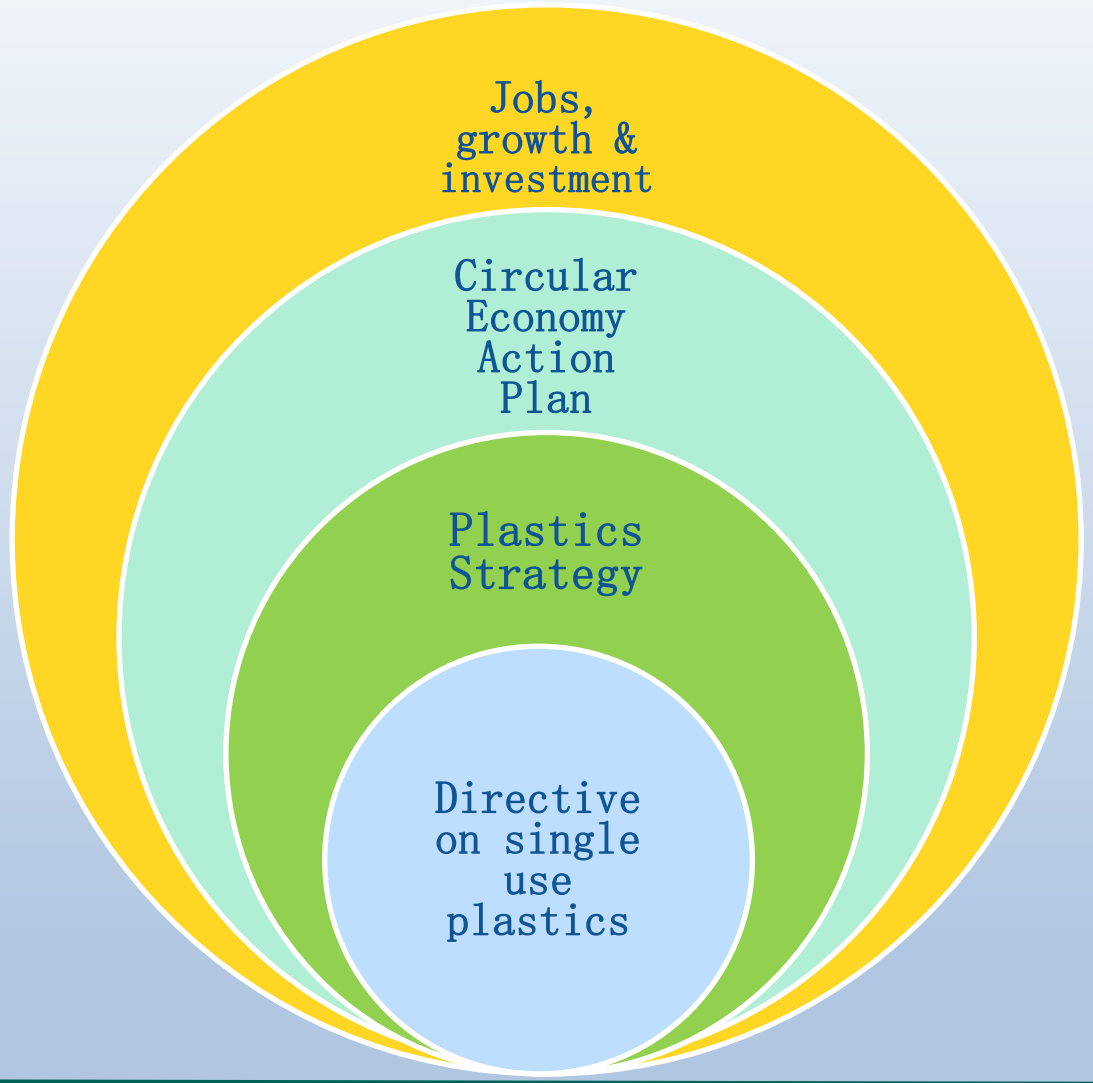
European Environment Agency

EU Jobs/Growth, Circular Economy and Plastics Agenda



The plastics strategy will bring about the complete transformation of the plastics industry. All plastic packaging in the EU will be recyclable by 2030; the consumption of single-use plastics will be reduced; and the intentional use of microplastics will be restricted. By taking the lead in this transition, new investment opportunities and jobs will be created.

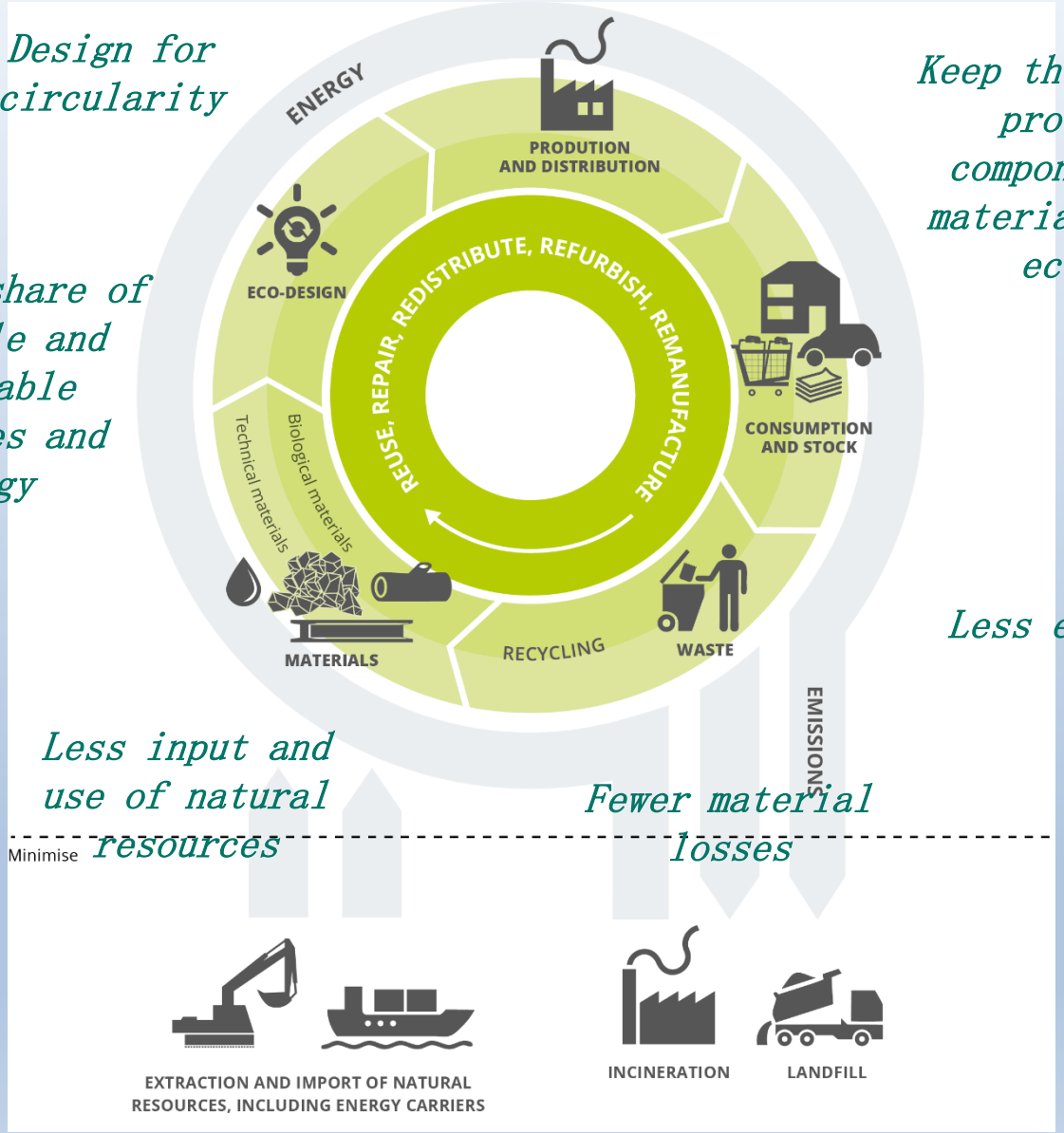
Source: European Commission

Circular economy

Design for circularity

Keep the value of products, components and materials in the economy

Increase share of renewable and recyclable resources and energy



Less emissions

Less input and use of natural resources

Fewer material losses

Source: adapted from EEA, 2016

Plastics in the circular economy

Most plastics is designed for using once only (limited recyclability)

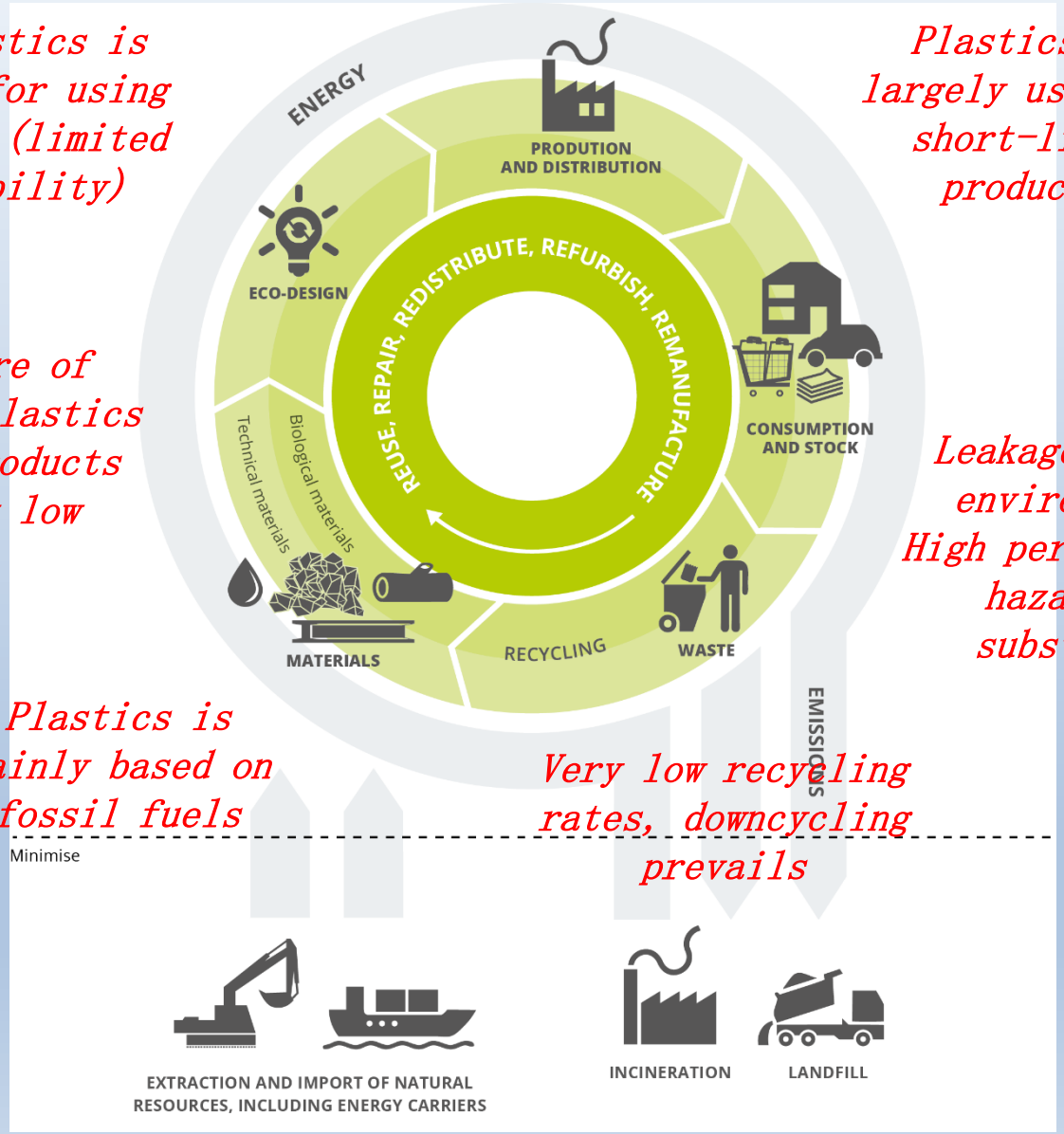
The share of recycled plastics in new products is very low

Plastics is mainly based on fossil fuels

Plastics is largely used for short-lived products

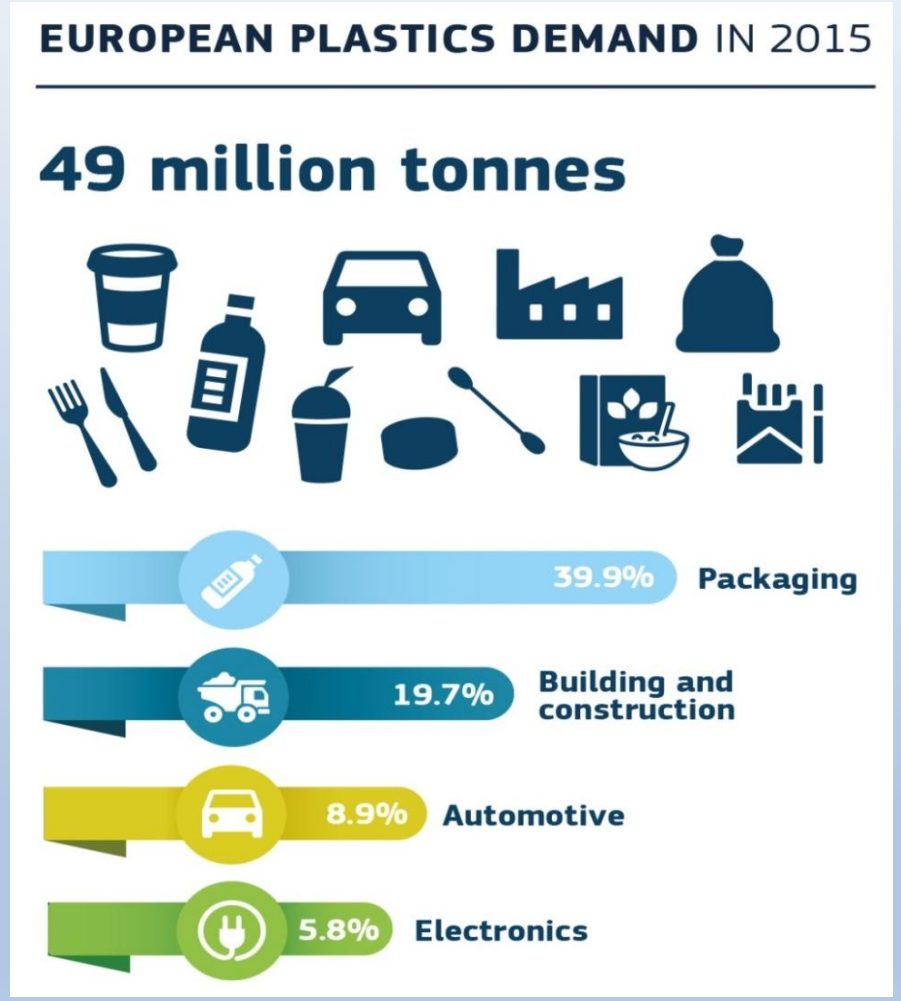
Leakage to the environment, High persistence, hazardous substances

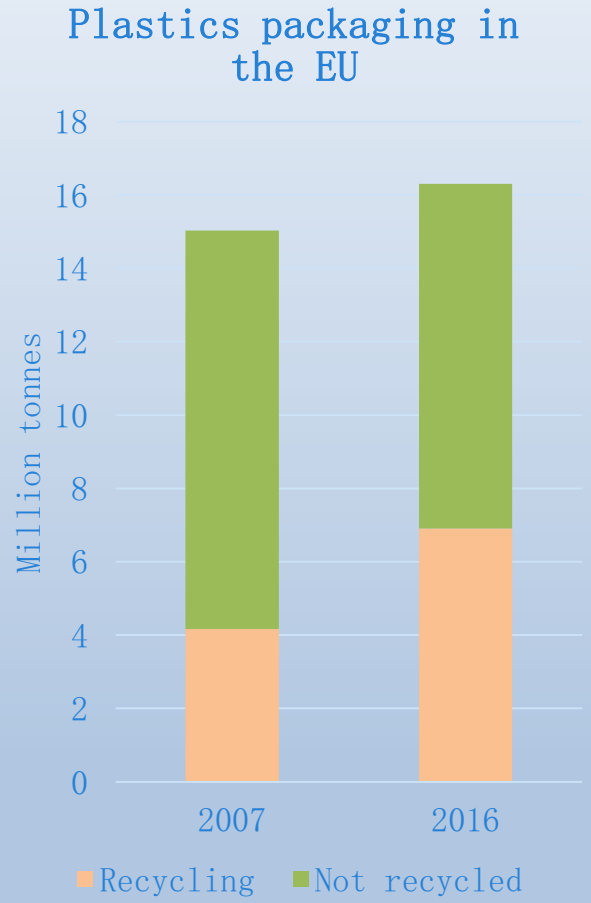
Very low recycling rates, downcycling prevails



Source: adapted from EEA, 2016

Some facts about plastics





Source: European Commission

A EUROPEAN STRATEGY FOR PLASTICS IN THE CIRCULAR ECONOMY (16th Jan. 2018)

- Stimulate design for circularity
- Better separate waste collection
- Boosting recycled content

By 2030 all plastics packaging reusable or recyclable

- Strategic Research Innovation Agenda for Plastics (2018)
- H2020 additional €100 million investments (up until 2020)
- Support the development of alternative feedstock for plastic production
  → lifecycle assessments including biomass

By 2030, more than half of plastics waste generated in Europe is recycled.

- Support for multilateral initiatives on plastics
- Promote international industry standards development
- Development in cooperation funding

- Regulatory framework for biodegradable plastics
- Curb microplastics pollution (REACH)
- Regulate port facilities
- Tackling single use plastics (Proposal for a

RSCs

UN Marine Litter Resolution

Commitments of Plastics Strategy on reducing marine litter

«The Strategy focuses on tackling pollution at its source.»

Proposal for a directive on port reception facilities for the delivery of waste from ships (Sea based sources)

New rules on port reception facilities will tackle sea-based marine litter, with measures to ensure that waste generated on ships or gathered at sea is not left behind but returned to land and adequately managed there. Also included are measures to reduce the administrative burden on ports, ships and competent authorities.

Proposal for a Directive on the reduction of the impact of certain plastic products on the environment (land based sources)

"A legislative initiative on single-use plastics at EU level still to be tabled by this Commission"

"Approach used for light-weight plastic bags"

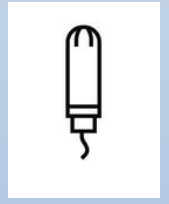
"The Commission will also develop targeted measures for reducing the loss or abandonment of fishing gear at sea"

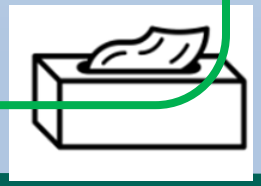
Proposal for a Directive on the reduction of the impact of certain plastic products on the environment

Proposal for a Directive on the reduction of the impact of certain plastic products on the environment

items with available sustainable alternatives

items with no clear alternatives





promote less harmful alternatives: market bans

prevention measures: design requirements, consumption reduction, consumer information

better waste management: separate collection, extended producer responsibility + clean-up

Objective

- Curb the negative economic and environmental impacts arising from littering of single use plastics and from abandoned fishing gear

- Significant reduction of littering while creating economic opportunities and protecting the environment

	Consumption reduction	Market restriction	Product design requirement	Marking requirements	Extended producer responsibility	Separate collection objective	Awareness raising measures
Food containers	X				X		X
Cups for beverages	X				X		X
Cotton bud sticks		X					
Cutlery, plates, stirrers, straws		X					
Sticks for balloons		X					
Balloons				X	X		X
Packets & wrappers					X		X
Beverage containers, their caps & lids			X		X		X
- Beverage bottles			X		X	X	X
Tobacco product filters					X		X
Sanitary items: - Wet wipes				X	X		X
- Sanitary towels				X			X
Plastic carrier bags					X		X
Fishing gear					X		X

Need to improve knowledge base on plastics and the environment, including food and beverage plastics packaging

The knowledge base- example microplastics

Sources include

- Industrially produced micro particles (e.g. used in cosmetics or detergents) and emitted through wastewater
- Generated by wear and tear of tyres, (road) paints, fibres from textiles, shoe soles, etc.
- Larger plastics, including from food and beverage packaging

Impacts include

- Microplastics in seabirds, mussels, fish, human faeces
- Microplastics can carry hazardous substances (e.g. endocrine-disrupting substances used as plasticisers)
- Impacts from production (energy use, greenhouse gas emission etc)

European Environment Agency strengthens efforts to contribute to knowledge base on plastics

Upcoming EEA Waste prevention report 2019

Measures aimed at prevention of plastics packaging waste in European countries' waste prevention programmes

Mapping and good examples

Examples of policies, mainly voluntary agreements and information

Finland: Plastics Roadmap for Finland, October 2018

Switzerland (and other countries) Partnerships and stakeholder engagement

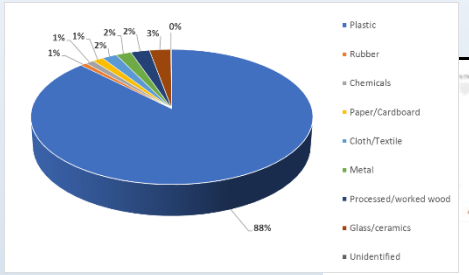
18 European countries introduced taxes/levies/charges for single-use plastic bags

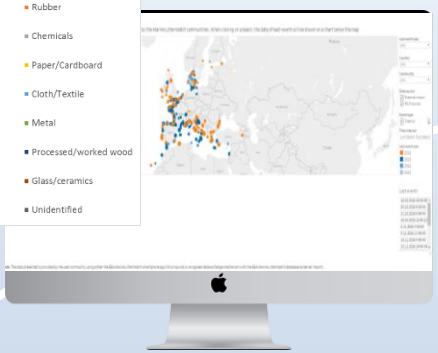
Increasing interest in:
- Ban on micro-plastics
- Ban on certain single use plastics

Marine LitterWatch

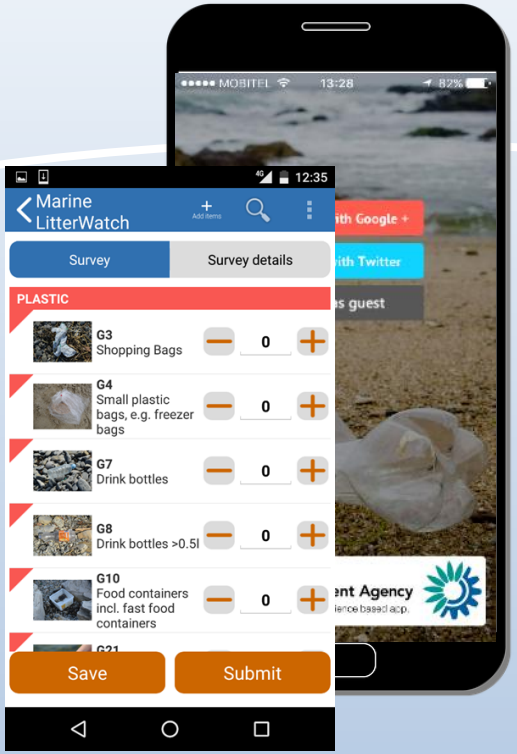
- The European Environment Agency (EEA) developed Marine LitterWatch app (MLW) in 2013, which combines citizen engagement and modern technology to help tackle marine litter
- Need for innovation and societal shifts to solve environmental problems.
- **MSFD GES Descriptor D10 (Marine litter);** which aims to ensure that, by 2020, the 'properties and quantities of marine litter do not cause harm to the coastal and marine environment'.
- MLW offers tools – a mobile app, a web portal and a public database - to collect and share comparable data on marine litter on beaches
- **Collaboration with existing communities**, as well as provide a setup for new ones to emerge
- **Exploring benefits of involving citizens** in collecting and monitoring of marine litter

How does it work?

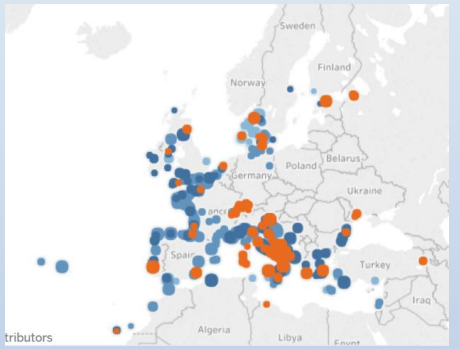




MLW webpage



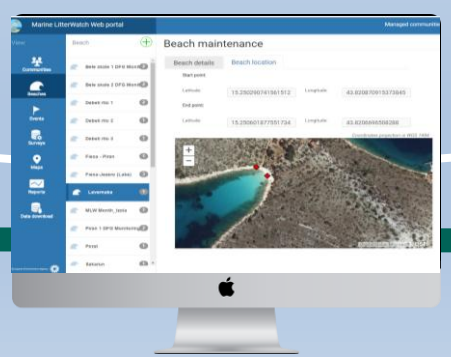
2014-2018
Communities: over 30
Total events: 2026
Total items collected: 960.000



Join or create a community

Carry out a survey

Use and share the information



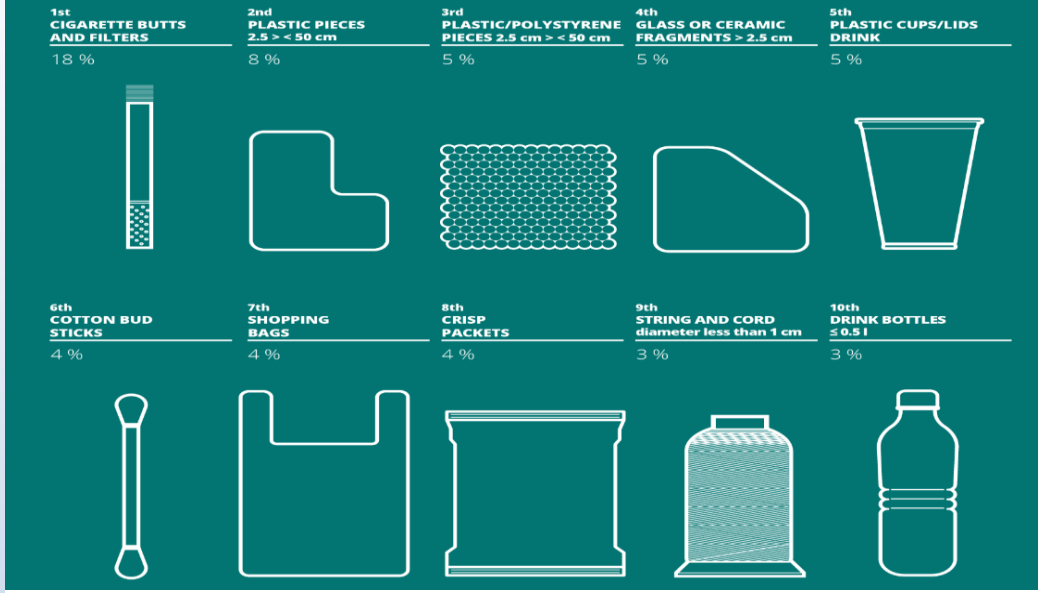
MLW web portal

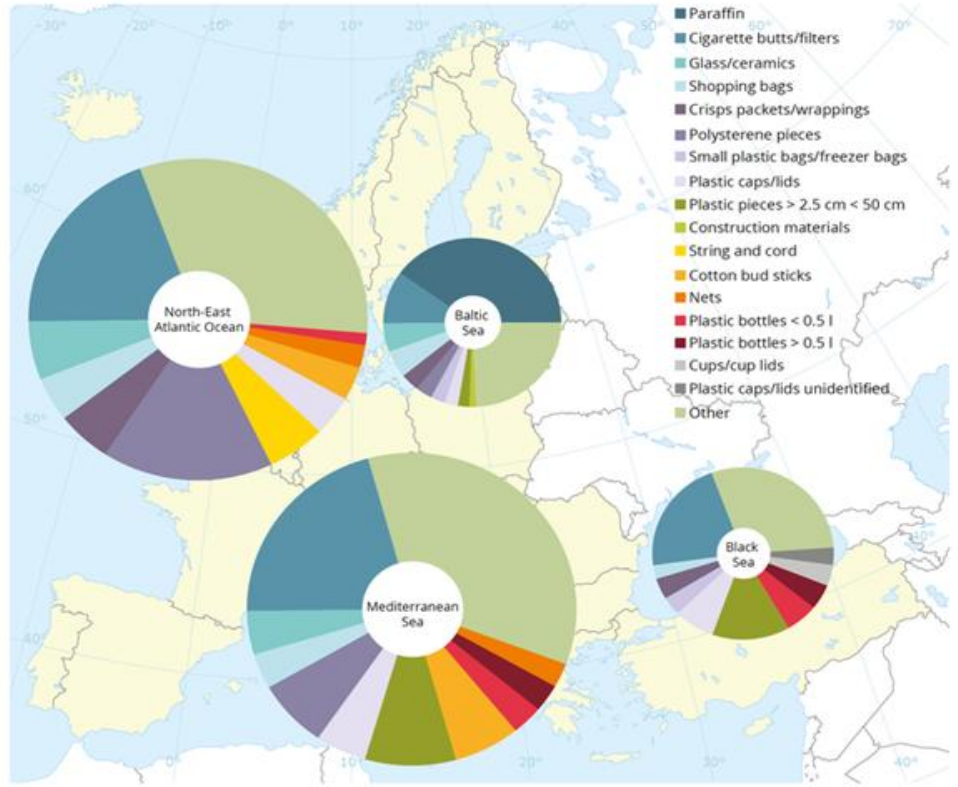
European Environment Agency

Marine LitterWatch

- **MLW helps filling data gaps on beach litter** for policy implementation and assessments
  - MLW Monitoring Month since 2014
  - Supports EU marine policy and assessments; EEA ML Beach Indicator by 2019
  - Expanding its scope to RSCs and EU Projects (e.g Black Sea EMBLAS Project, ENI East Project, Denmark WWF and Roskilde University Projects)

- **2nd MLW online assessment will be published in 2019**





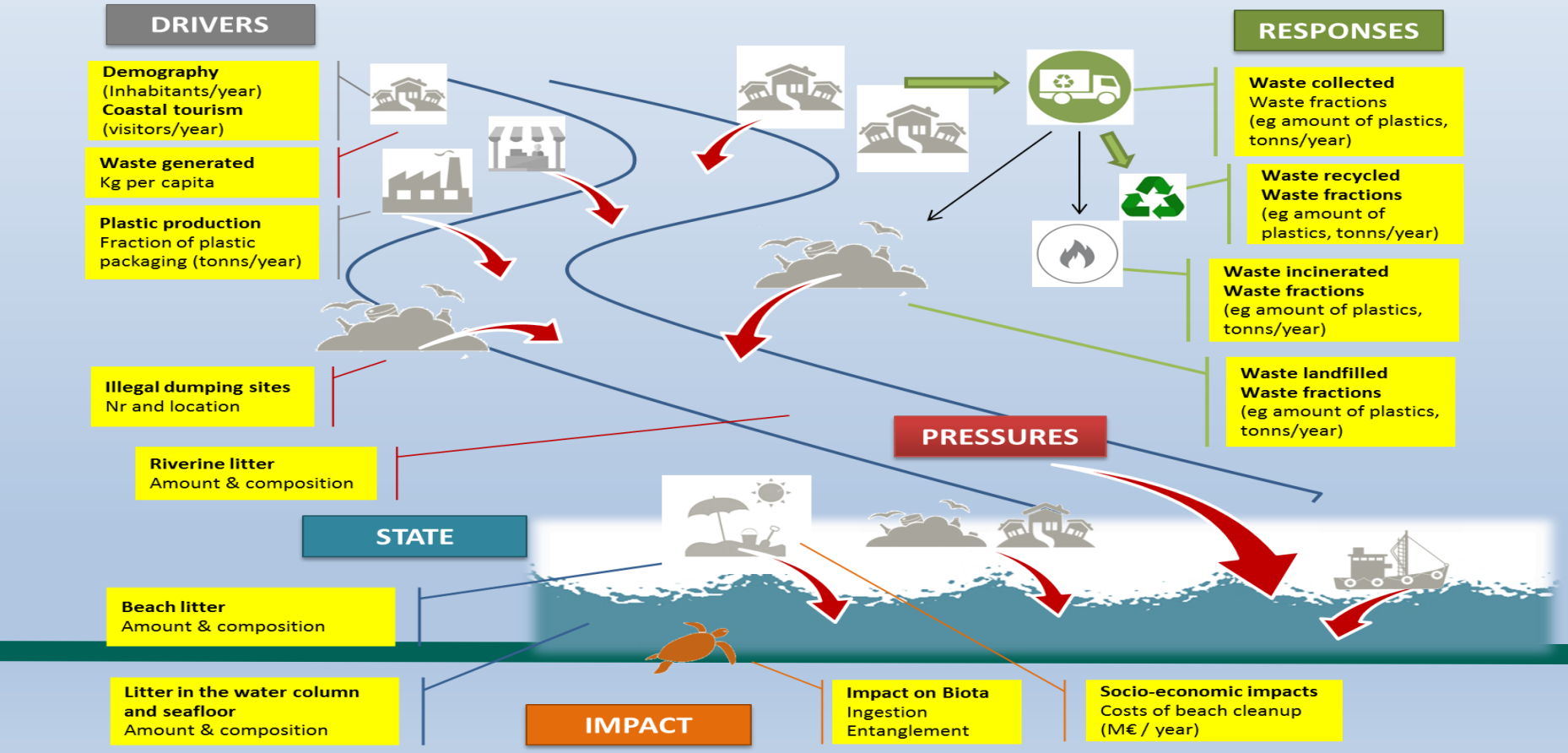
- The one-month pilot beach surveys deployed a harmonized monitoring approach (following the Guidance Document on Monitoring of Marine Litter in EU Seas).
- MLW is mentioned as a successful example of citizen science in various EU platforms and documents as Draft SUPs Directive and provides data for EMODNet.
- Cooperation with JRC and EMODNet on improving EEA MLW database to a central data collection and reporting source for Europe (including MSFD reporting)
- Support to MSFD TG Litter group will continue
- Expansion of geographical scope
- A workshop will be organised in June (with the participation of JRC, EMODNet, EC, RCSs) in order to discuss draft scoping document and indicators

EEA Marine litter indicators scoping approach

DPSIR approach: sources* – pathways – state – impact

(* in practice, “sources” are a combination of drivers, responses and pressures)

- Conceptual scheme of DPSIR and example of indicators at the different levels



As ML is a direct consequence of linear economies, poor waste management practices and level of awareness, including indicators related to production, waste prevention and waste management will enable an assessment of the state of litter pollution in light of specific waste performances.

Source for the figure: Joana Veiga, Deltares. (do not disseminate and do not place online)

- We aim to propose a potential set of indicators across the DPSIR, supported by a simple multi-criteria analysis. This MCA will be shown as a simple table, eg using road-light colours (green-orange-red) and based on key criteria:

- level of implementation (green if all EU are required to implement and report on this indicator)
- level of maturity (green if these indicators have standardised methodologies for data collection and data reporting)
- level it can inform specific policies (eg MSFD, Circular Economy, etc)
- level of data availability

Based on the MCA results and proposal for a set of Indicators for an integrated assessment of ML, we and provide some recommendations for future developments:

- Some of the indicators are well developed and implemented in Europe (eg beach litter), others need to be further developed but are valuable (eg riverine litter)
- Provide recommendations on improvement of indicators, in view of enabling an integrated assessment: e.g. ML vs Waste indicators are often expressed in different units (nr items/area or/volume vs mass/year or /capita)
- How to potentially integrate the different indicators?
- Lay vision for potential data that may result from future technological developments (eg data from remote sensing – satellites, drones, automated measurements at sea)
- Use of spatial data (land cover etc.)