

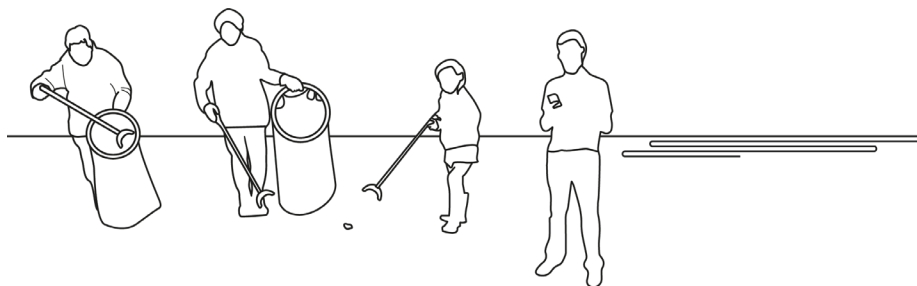
Citizens collect plastic and data to protect Europe's marine environment



Plastic's not so fantastic when it pollutes your favourite beach or the sea where you swim. Yet, each year an estimated **8 million tonnes of plastic** ends up in the world's oceans. That's the 'equivalent to five grocery bags filled with plastic for every foot of coastline in the world'. A lot of this plastic finds its way to our beaches. As well as being unpleasant and unsightly, this is bad news for the economy: clean-up costs are high and valuable materials are not recycled. Plastic also damages the marine environment and negatively affects the health of ocean habitats. Marine Litter Watch offers one way to tackle this problem.

Marine Litter Watch is a European Environment Agency (EEA) initiative that aims **to combat the plastic litter problem**. It uses citizen science — scientific research conducted, at least partly, by members of the public — and mobile-phone technology to help individuals and communities come together to clean up Europe's beaches. Volunteers use the [Marine Litter Watch app](#) to form communities that **collect litter from beaches and send data** on the items found to the EEA. The initiative — set-up in 2014 and involving non-governmental organisations and research institutions — is the only pan-European platform that members of the public can use to co-ordinate clean-ups and record beach litter. The focus on citizens is designed to complement the collection of official marine litter data by national authorities and fill data gaps. As well as developing and hosting the app, the EEA is responsible for quality assurance of the data.

This briefing highlights the work and results of the Marine Litter Watch clean-up activities held on the beaches of Europe's four regional seas (the Baltic Sea, the Black Sea, the Mediterranean Sea and the North-East Atlantic Ocean) between 2014 and 2017. It also presents the top ten litter items found and attempts to link them to the most likely litter sources.



693 259
items collected

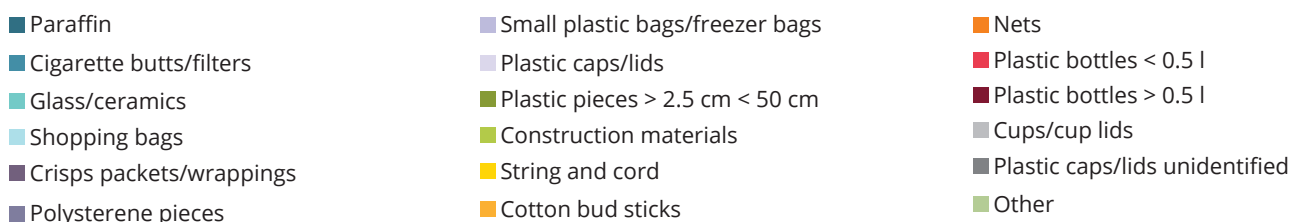
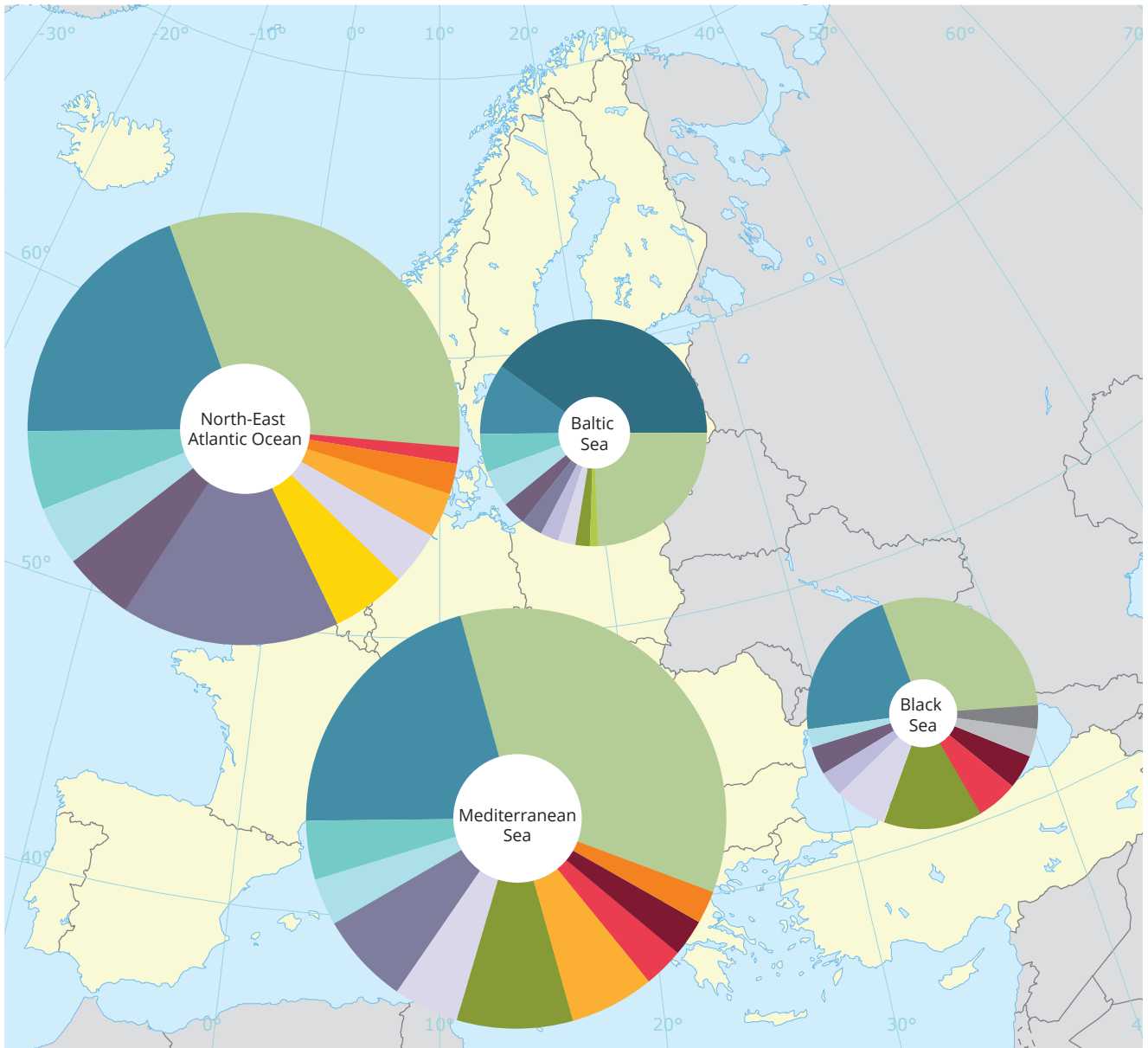
1 627
beach clean-up
events

Look [here](#) for the Marine LitterWatch Community overview, showing the date when they started collecting data.

When beaches become dumping grounds

Top ten items of marine litter reported by the public and where they were found

Plastic, in its different shapes and forms, appears on beaches all over Europe but some regional trends emerge: paraffin was found in large quantities during clean-ups on Baltic Sea beaches and, while more data from clean-ups are needed, this is presumably the result of people grilling food on the beach; crisp packets and wrappings are common on North-East Atlantic beaches providing an insight into dietary preferences; and smoking plays a major part in marine litter across Europe.



The findings from Marine Litter Watch reflect trends reported officially by national authorities.

Analysis of the data reported during beach clean-ups has resulted in a list of the top ten most commonly found items on European beaches. Encouragingly, this is almost identical to the top ten list of items revealed by official data under the **Marine Strategy Framework Directive's Technical Group on Marine Litter**, the first ever **Europe-wide Strategy on Plastics** and other related initiatives. The complementary data provided by Marine Litter Watch, and the way in which it is made accessible via an online database makes data comparability and future trend assessments reliable.

Dirty habits lead to dirty beaches

Top ten items reported to Marine Litter Watch, 2014-2017

These ten items together account for 60 % of all marine litter. The main sources of marine litter are:

Land-based:

- landfill
- rivers and floodwaters
- industrial outfalls
- discharge from storm water drains
- untreated municipal sewerage
- littering of beaches, coastal areas (tourism)

Sea-based:

- fishing and aquaculture
- shipping (e.g. transport, tourism)
- offshore mining and extraction
- illegal dumping at sea



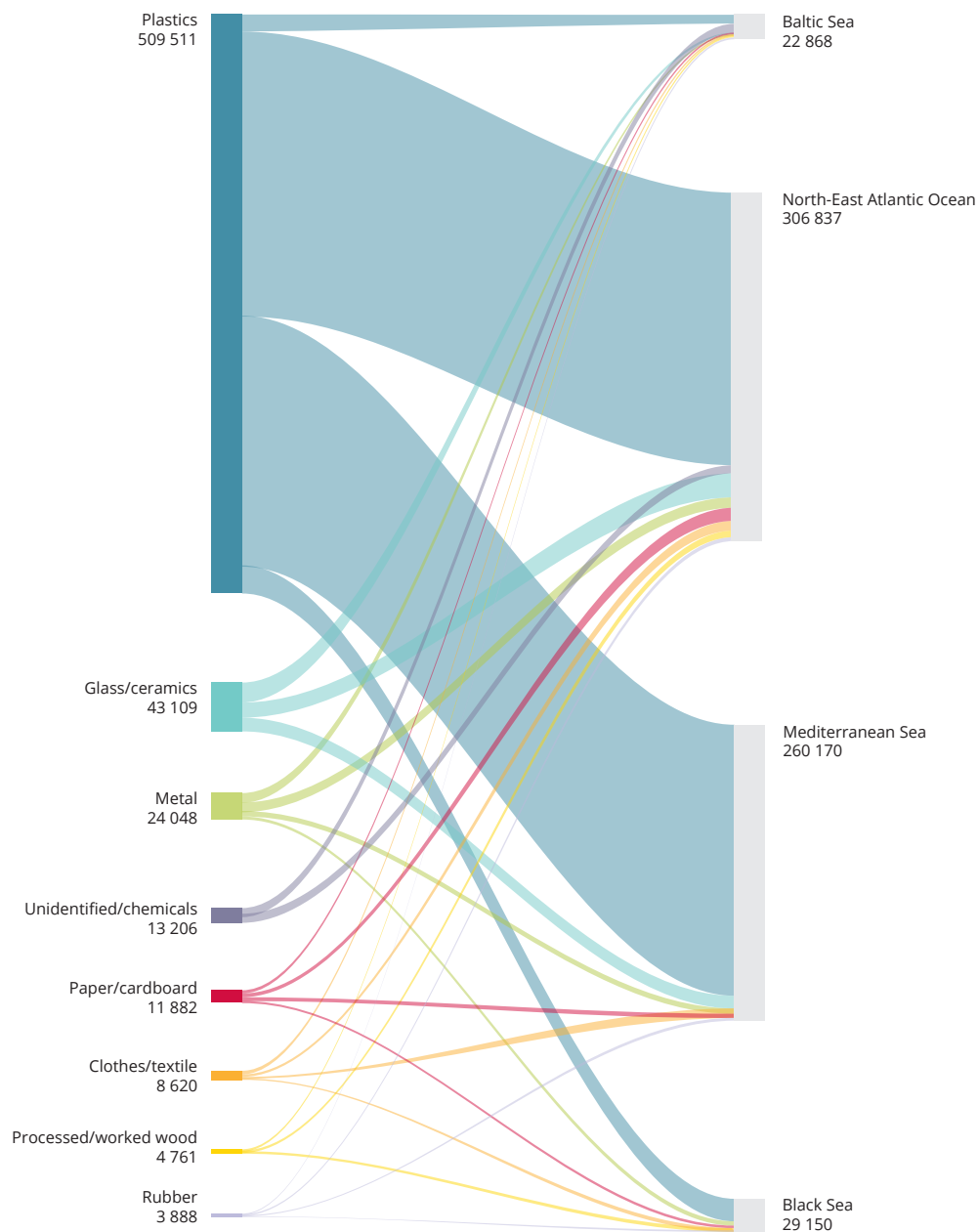
Marine Litter Watch is one of the few genuinely pan-European initiatives, where all countries involved share a **common methodology**.

The data collection methods and data treatment are identical across Europe. Marine litter found on any European beach can now be reported by the public in exactly the same way. And while the results differ from region to region, some underlying trends emerge.

So-called disposable plastic...

Distribution of marine litter by material type

Regardless of region, so-called disposable plastic is by far the biggest contributor to marine litter. Much of this plastic will end up in the sea. Plastic pollution has become ubiquitous in the oceans because of the increased production, use and consumption of products containing or packaged in plastic. Plastic is used in every step of the production chain and can be made into an infinite variety of products or product components. These products or their residues can leak into the environment during the product's life or when it is discarded. The design of plastic products has so far not taken into full consideration the need for a sustainable end-of-life for plastics.



With all this input from Marine Litter Watch, Europe can further develop and **implement solutions** to the problem of marine litter.

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.

Europe-wide Strategy on Plastics

The overall aim of the Europe-wide strategy on plastics is to protect the environment from plastic pollution, while encouraging **economic growth and innovation**. It is designed to help raise awareness of plastic waste and at the same time develop a mindful approach to dealing with plastic litter. It is also fully aligned with Marine Strategy Framework Directive requirements, which aim to ensure that, by 2020, the 'properties and quantities of marine litter do not cause harm to the coastal and marine environment'.

The strategy and Marine Litter Watch are both very much solution based. For example, they aim to reduce litter from both sea- and land-based sources, remove existing marine litter from the environment and raise awareness among the public on the topic of marine litter.

Such an approach is very much in line with the EEA's suggestions on the need for innovation and societal shifts to solve environmental problems. Marine Litter Watch is one such innovation.



Under the Europe-wide strategy on plastics all plastic packaging on the EU market will be recyclable by 2030

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Bottom photo: © Bo Eide

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