





Transforming data into tailored action plans through a collaborative web platform and participatory science

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Coastal pollution

Definition by the World Health Organisation

» The introduction by man, directly or indirectly, of substances or energy into the marine environment, including estuaries, which results or is likely to result in such deleterious effects such as harm to living resources and marine life, harzards to human health, hindrance to marine activities, including fishing and other legitimate use of the sea, impairment of quality of sea water and reduction of amentities. »



Image Source: https://www.esa.int - contains modified Copernicus Sentinel data (2020), processed by ESA, CC BY-SA 3.0 IGO















Coastal erosion

- 20,000 km coastline face serious impacts
- 15,000 km coastline actively retreating; some despite coastal protection works
- Loss of houses and decrease of market value of houses in danger
- Risk of coastal flooding due to undermining coastal dunes and sea defences
- Increasing mitigation costs for coastline protection



Image Source: https://www.klimareporter.de/erdsystem/klimakrisebedroht-sandstraende



https://www.sueddeutsche.de/reise/sylt-erosion-kuestenschutz-1.5047790?reduced=true















Light pollution

- 99% of EU population lives in areas where night sky is above the threshold for polluted status i.e. articifial brightness
 -> greater than 10% of the nights natural
 - -> greater than 10% of the nights natura light
- Impact on human beings
 - -> reduced sleep times & sleep quality, excessive sleepiness, impaired daytime functioning, obesity
- Impact on animals and eco-systems
 -> Alteration of animals nighttime
 - -> Alteration of animals nighttime environment; changing behaviour of plants that rely on light to recognise season

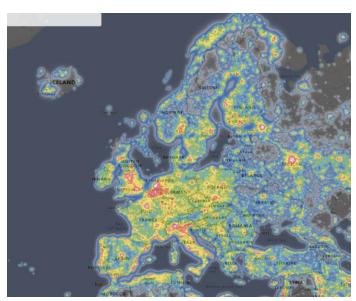


Image source: https://www.lightpollutionmap.info















Marine litter

- In Europe: 500,000 tons / year of plastic waste are leaking into ocean
 -> devastating effects on marine & coastal ecosystems, the blue economy, animal & human health
- Plastics production is predicted to double again by 2040
 -> widely used for packaging and industry i.e. building & construction, automotive, electronics
- Plastics production, use and discharge ar still 'linear': less than 6% of plastics are recycled
 -> plastics are mostly incinerated,

-> plastics are mostly incinerated, exported, landfilled and are ending up in the environment



Interreg Europe Policy Brief: 'Halting ocean plastic pollution'

MerTerre Association: Zero Marine Litter Goal



MerTerre, created in 2000, is specialized in the characterization of waste collected during voluntary and professional cleanups.

Thanks to data analysis, the association implies the concerned actors and directs the actions to be carried out to prevent the pollution and restore the environments.

















Key lessons to tackle marine litter pollution

- Actions needed at river basins level to turn off the tap
 - -> 80% of the marine litter is coming from the ground.
- Any successful action plan must address social and scientific aspects:

It requires a solid diagnosis

-> starts with quality data (regular, homogeneous)

It must integrate every single stakeholder in a collaborative way

- -> economic sectors, NGOs, organisations and public authorities from the beginning
- Good action plan = range of complementary solutions
 - -> monitoring tools, certifications, legal measures, etc.
- Priority actions with measurable results are important
 - -> allow to reduce quickly the main pollution sources
- Monitor the results
 - -> to confirm or adapt the implemented actions
- Reduction at the source is not an option anymore
 - -> Producers and distributors must invest in alternatives to single use plastic and deposit schemes















A collaborative web platform to transform data into tailored action plan

MerTerre has created <u>www.zero-dechet-sauvage.org</u> in partnership with the French Ministry of The Ecological Transition, the South Region and the National Natural History Museum, which aim is to:

- 1. Federate, coordonate and reinforce all the actors fighting marine litter, share good practices, methodological and pedagogical tools, scientific reports, etc.
- 1. Collect and centralise the largest amount of data collected with the same methodology during litter clean-ups (mountains, rivers, cities, countryside, seaside, etc)



















Zero Dechet Sauvage: a collaborative monitoring tool for tailored action plans

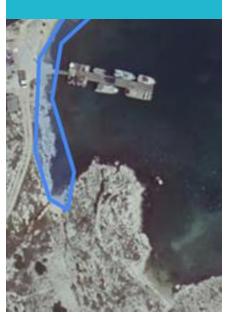
STAKEHOLDERS' MAP

Involved on the territory



WASTE DATA

collected and characterized



TRACKING OF WASTE CATEGORIES by sector or brand



DATA VISUALISATIONSevaluation of action plan









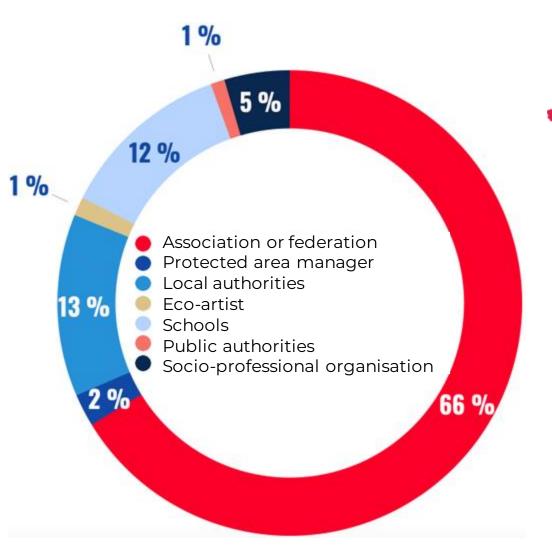














442structures inscrites



1262 ramassages

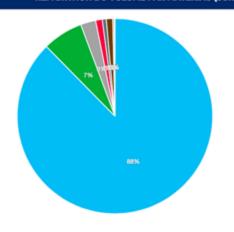


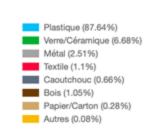
1964 649 L

de déchets sauvages collectés

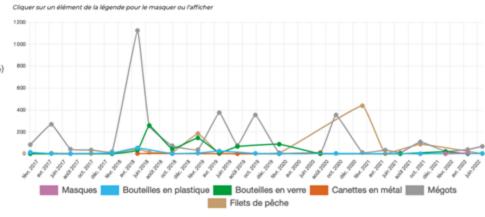


RÉPARTITION DU VOLUME PAR MATÉRIAU (SUR 1 297 L CONSIDÉRÉS)





ÉVOLUTION DU NOMBRE DE DÉCHETS INDICATEURS









DÉCHETS PRINCIPAUX

- 1. Fragments de plastique 2,5 50 cm (26 560)
- 2. Fragments de plastique 0 2.5 cm (9 965)
- 3. Fragments de polystyrène (5 869)
- 4 . Emballages sucreries et chips (4 587)
- 5. Fragments verre supérieurs à 2,5 cm (4 047)
- 6. Mégots (3 420)
- 7. Bouchons plastique (3 275)
- 8. Cotons-tiges (2 962)
- Cordages et ficelles inférieures à 1 cm (2 321)
- 10 . Pailles (2 123)

EVOLUTION DES VOLUMES, POIDS ET NOMBRE DE DÉCHETS









Thank you!



Some questions? association@mer-terre.org





