Interreg
Co-funded by the European Union
Italy – Croatia
WASTEREDUCE

JANUARY 2025

This is 4th WASTEREDUCE Newsletter

Dear Readers,
We are delighted to share our 4th Newsletter with you!

Each of our newsletters will focus on a timely and important topic, paired with educational content, to keep you informed. We will also highlight recent project activities and provide updates on upcoming initiatives. To strengthen cross-border and regional collaboration, each edition will feature a "Region in Focus" section, where we'll shine a spotlight on one of the regions involved in the project.

*This issue is dedicated to **Plastic Pollution** — a significant and widespread challenge across the cross-border area and beyond. Inside, you'll find insights into the current situation and the measures being taken to address this issue.*

*Additionally, we will provide an overview of the past period of the WASTEREDUCE project, including our activities and what lies ahead. This issue's "Region in Focus" will feature the **Friuli-Venezia Giulia** in Italy.*

We hope you will enjoy reading!

Your WASTEREDUCE Team

Partnership
IT - 4
HR - 4

01/02/2024
31/07/2026

Total budget
1.657.742,23
EUR

WASTEREDUCE

is an EU funded project in collaboration with eight partners. Together, we will tackle waste management challenges in protected and Natura 2000 areas across Italy and Croatia. Our goal is to enhance waste prevention, reduce environmental impacts, and improve cooperation among stakeholders.

CONTENT

Plastic Crisis: EU Legislation and Measures

Plastic pollution is now one of the most urgent environmental challenges, driven by the rapid growth in disposable plastic production that far outpaces the world's capacity to manage the waste it creates. From microplastics infiltrating oceans and food chains to visible waste-littering landscapes, the issue of plastic pollution touches every corner of the planet. As awareness grows, governments, organizations, and individuals are stepping up to address this complex problem. In Europe, the fight against plastic pollution has gained momentum, with robust legislation aimed at reducing waste and promoting sustainability.

EU Plastics Legislation

The European Union has implemented several pieces of legislation aimed at reducing plastic waste and pollution. The EU Action Plan for a circular economy prioritizes plastics and aims to transform the way products are designed, produced, used, and recycled in the EU. This strategy includes making all plastic packaging recyclable or reusable by 2030, reducing the consumption of single-use plastics, and restricting the use of microplastics.

The Single-Use Plastics (SUP) Directive, which came into force on July 3, 2021, targets the 10 single-use plastic items most commonly found on Europe's beaches, such as cotton bud sticks, cutlery, plates, straws, stirrers, balloon sticks, and cups made of expanded polystyrene. These items are either banned or subject to specific measures to reduce their use, including awareness-raising measures, design requirements, and waste management and clean-up obligations for producers.

Additionally, the EU proposes revising its legislation on packaging waste to make all packaging reusable or recyclable by 2030. This includes banning unnecessary packaging, such as miniature hotel toiletries and single-use packaging for fruits and vegetables. The proposed regulations also call for mandatory deposit and return schemes for single-use plastic drinks bottles and metal cans, aiming to reduce packaging waste and promote reuse over recycling.

The European Commission has also voted to ban plastic waste exports outside the EU, recognizing the environmental and health impacts of exporting waste to countries with weaker regulations. This ban aims to encourage EU member states to take responsibility for their own waste.

These legislative measures are part of the EU's broader strategy to protect the environment from plastic pollution while fostering growth and innovation.

Measures to Combat Plastic Littering

Reducing littering is a collective responsibility that requires continuous commitment. Here are some best practices everyone can adopt:

- **Education and awareness:** inform and educate people about the negative effects of littering and the importance of properly disposing of waste.
- **Active participation:** promote participation in local and national clean-up initiatives, such as ecological days.
- **Reduction and recycling** of single-use plastics: encourage the reduction of single-use plastics and promote recycling and reuse practices.
- **Responsible behavior**: adopt habits such as using reusable water bottles and fabric bags.
- **Participate in ecological days**: contact your local municipality to organize or participate in an environmental day. Just equip yourself with gloves, tongs, bags, and good will.
- **Penalties and strict laws:** enforce laws that penalize littering with fines and sanctions.

Microplastics

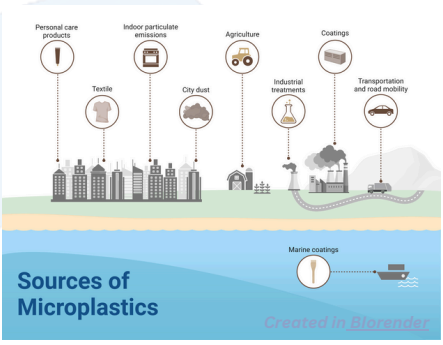
Microplastics are tiny plastic particles, typically less than five millimeters in size, that have become pervasive environmental pollutants. They can be divided into two main categories according to their source*:

Primary microplastics

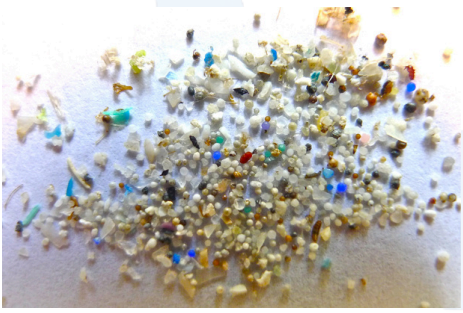
- Directly released in the environment as small particles
- Are estimated to represent between 15-31% of microplastics in the oceans
- Main sources: laundering of synthetic clothes (35% of primary microplastics); abrasion of tyres through driving (28%); intentionally added microplastics in personal care products, for example microbeads in facial scrubs (2%)

Secondary microplastics

- Originate from degradation of larger plastic objects, such as plastic bags, bottles or fishing nets
- Account for 69-81% of microplastics found in the oceans



Their resilience and persistence in the environment have raised significant concerns regarding their impact on ecosystems and human health.



EU Legislation and Management Strategies

The European Union has recognized the urgency of addressing microplastic pollution and has implemented several measures to mitigate its impact. In January 2019, the European Chemicals Agency proposed restrictions on intentionally added microplastics in products. Building on this, the European Commission's Circular Economy Action Plan outlines mandatory requirements for recycling and waste reduction, targeting key products like plastic packaging. The plan also mandates measures to capture microplastics throughout a product's lifecycle, including policies aimed at reducing releases from tires and textiles.

Plastic in the Adriatic: Progress, Challenges, and the Path Forward

As part of the EU Marine Strategy Framework Directive (MSFD), Croatia is actively monitoring marine litter to protect its coastal and marine ecosystems. Ongoing surveys and data collection help assess the impact of sea waste and support effective measures for its reduction. These efforts contribute to a cleaner Adriatic Sea and align with EU sustainability goals.

Plastic pollution, particularly microplastics, is a growing concern in the Adriatic Sea, impacting marine biodiversity and coastal ecosystems. Studies and monitoring programs under the Marine Strategy Framework Directive (MSFD) have reported significant levels of plastic waste, including macroplastics from different sources**. Recent assessments highlight the accumulation of microplastics in sediments, water columns, and marine organisms, posing risks to marine life and potentially entering the human food chain. Continued monitoring and mitigation strategies are essential to address this environmental challenge and protect the Adriatic's ecological balance.

There is a noticeable fluctuation in the amount of waste washed up on beaches, with a currently slight downward trend in pollution levels in some monitored areas. However, the most affected areas remain those influenced by waste drifting in from the open sea. Since the start of monitoring in 2017, various trends in marine litter accumulation have been observed, with a gradual decline over time. The most polluted beaches are those with exposed geomorphological position and openned to marine and wind-driven surface currents.**

Share of individual categories of waste in beach litter in 2023. The blue parts of the column represent plastic waste (Source: Database and indicators of the state of the marine environment, mariculture and fisheries**)

*https://www.europarl.europa.eu/topics/en/article/20181116STO19217/microplastics-sources-effects-and-solutions
**https://vrtlac.izor.hr/ords/bazapokpub/bindex

From Theory to Practice:

Innovative Approaches to Plastic Waste in Italy

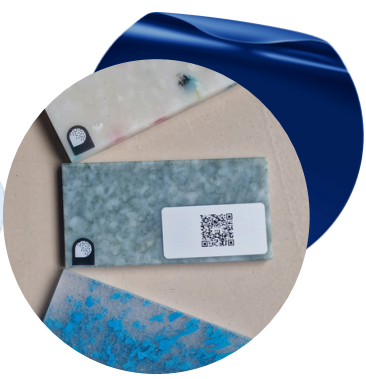
Across Europe, efforts to combat plastic pollution have accelerated, supported by strong legislation designed to reduce waste and advance sustainability.
Italy, with its diverse landscapes and unique challenges, has been at the forefront of implementing these policies. Yet, solutions require more than just policy—they demand action on the ground and the replication of successful practices that deliver tangible results.

Best Practices

Thanks to the Interreg Central Europe Circe2020 project and other initiatives, it has been possible to prevent the disposal of PVC collected in municipal waste; the training of workers and the integration of a specific logistic allow to obtain secondary PVC granules recycling 100% of rigid PVC items. This improved management of PVC waste results in economic savings and less environmental impacts.

Innovative Approaches to Plastic Waste in Croatia

Best Practices



Plastic waste collected on beaches can be a valuable raw material. Its processing can produce materials suitable for making street benches, waste bins, office furniture, and even waste bags. You can read more about these innovative solutions that are already traditionally used on the Island of Krk (Croatia) here.

Turning the Tide: Education and Innovation to Combat Plastic Waste

Plastic pollution poses significant environmental challenges in Region of Istria (Croatia). However, some local initiatives have been implemented to address this issue effectively.

Best Practices

One example is the CAPonLITTER Interreg project that introduced proactive measures taken to combat plastic waste.
It developed an Action plan for dealing with plastic waste in Labin area. Educational workshops have been organized to raise awareness about marine litter and the impact of microplastics on ecosystems. These workshops aim to inform students about recycling processes and the potential for reusing materials, exemplified through activities like 3D printing with recycled plastics. Additionally, to tackle the prevalent issue of improperly discarded cigarette butts on beaches, stands equipped with cardboard ashtrays have been installed on the most frequented beaches in the Labin area. This initiative encourages proper disposal of cigarette waste, thereby reducing beach litter.

Another example is Project Jadranko, launched in January 2025 through the collaboration of the Istrian University of Applied Sciences with partners Calucem and Infobip.
"Jadranko" is an innovative robotic boat designed to combat microplastic pollution in the Adriatic Sea. Developed by students and experts from the university, in collaboration with industry partners, Jadranko is equipped to detect, collect, and analyse microplastics, addressing a critical environmental challenge. This initiative not only contributes to preserving marine ecosystems but also exemplifies effective collaboration between academia and industry in developing sustainable solutions.

Worst Practices

Despite these positive initiatives, plastic pollution remains a significant concern in Istria. Observations from the WASTEREDUCE project revealed that a substantial portion of litter in and around Natura 2000 areas is plastic. The Raša Estuary, in particular, suffers from sea-borne plastic waste accumulating along its coast, possibly due to the location of a nearby port, indicating the significant presence of both micro and macro plastics in the Adriatic Sea. Similarly, in nearby Blaz Bay, large amounts of plastic waste have been found near informal picnic spots, left behind by visitors or locals. These instances indicate the urgent need for educational initiatives on plastic pollution and the implementation of preventive measures to curb the dumping of plastic waste in natural areas. Addressing these challenges requires continued community engagement, effective waste management practices, and ongoing education to mitigate the adverse effects of plastic pollution in Istria

Region in Focus

Friuli Venezia Giulia

Friuli Venezia Giulia is a region in north-eastern Italy known for its diverse landscapes and rich cultural heritage. It borders Austria to the north, Slovenia to the east and the Adriatic Sea to the south. The region is characterized by a mixture of mountains, hills and coastal areas.

Protected Areas

Friuli Venezia Giulia offers a variety of ecosystems that are protected in several nature reserves and parks. Among them are some remarkable ones:

1. The Friulian Dolomites Nature Park (Parco Naturale delle Dolomiti Friulane): A UNESCO World Heritage Site, this park is known for its rugged mountain landscapes, rich biodiversity and unique geological formations. It is a popular destination for hiking and wildlife watching.

2. Nature reserves of the Karst Plateau: The Karst Plateau, which stretches across the region's border with Slovenia, is characterized by unique limestone formations and numerous caves. These reserves serve to protect the region's unique ecosystems, including the flora and fauna adapted to the karst environment.

3. Laguna di Grado e Marano: These coastal wetlands are vital for migratory birds and represent an important ecological area in the region. The lagoon and surrounding marshes are protected and play a key role in preserving local biodiversity.

4. Collio Goriziano: While this area is primarily known for its wine production, it also offers forests and hills that provide a natural habitat for various species.
These protected areas help to maintain the ecological balance of the region and offer opportunities for ecotourism, nature walks and wildlife watching.

In Friuli Venezia Giulia, several areas have been included in the **Natura 2000** network due to their ecological importance.

News

On January 14th, 2025, the **2nd WASTEREDUCE partner meeting** took place in Carmignano di Brenta (Italy).
It was a wonderful opportunity to meet the partner teams and connect, but most importantly, to discuss the progress and developments of the WASTEREDUCE project. The day began with the Steering Committee meeting, where strategic decisions and project management topics were discussed. Following this, all partners gathered to share updates on their activities and to discuss upcoming actions and events related to the project. Additionally, a press conference was held, during which our project manager, Barbara Sladonja, presented the project. The press conference was also attended by the Mayor of Carmignano di Brenta, the President of ETRA, and the President/Director of Consiglio di Bacino Brenta per i Rifiuti. The gathering concluded with a visit to the Camazzole water plant and a walk along the Brenta River and Lake Camazzole.

On January 27th, 2025, the **Workshop "Raising awareness about waste issues in protected and Natura 2000 areas"** was held in Pula, Croatia. The workshop was designed as a combination of presentations by relevant experts on the topic, as well as a panel discussion. All participants were introduced to the topic of waste issues through an overview of the legal regulations and the system for monitoring and managing marine waste in Croatia, practical examples of solving marine waste issues, and opportunities and possible solutions for reducing plastic waste and pollution.

Announcements

WASTEREDUCE workshop: "Abandonment of Waste and Protected Areas: Good Practices Developed and Improvement Actions in the Medio Brenta"

The workshop organized by ARPAV will be held on 30th January 2025. It represents an opportunity for dialogue and the sharing of information on the topic of waste, with particular attention to protected areas. It will propose a comparison between stakeholders on new tools to be applied in their territories.

Cleaning Sea Actions within the Natura 2000 Area

This ecological activity will be organized in early summer and aims at nature protection and raising awareness.

Educational and Training Tour in the Project's Protected and Natura 2000 Pilot Areas

These events will be organized next spring and summer in three pilot areas: Middle Brenta River, Sakarun Bay, and the Istrian West Coast. The excursions will offer partners education, training, networking, inspiration, and opportunities for collaboration.