

BIO-PLASTICS EUROPE

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BIO-PLASTICS EUROPE



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BIO-PLASTICS EUROPE

Developing and Implementing Sustainability-Based Solutions for Bio-Based Plastic Production and Use to Preserve Land and Sea Environmental Quality in Europe

October 2019 – September 2023



Project kicked-off in October 2019



After 2 years!



PARTNERSHIP



22 partners
13 countries
8.5 million Euros

CONTACT INFO

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BIO-PLASTICS EUROPE

Sustainability-based solutions for bio-based plastics



WP3 Identification and test of innovative product design

WP4 Plastic waste collection, recycling and littering

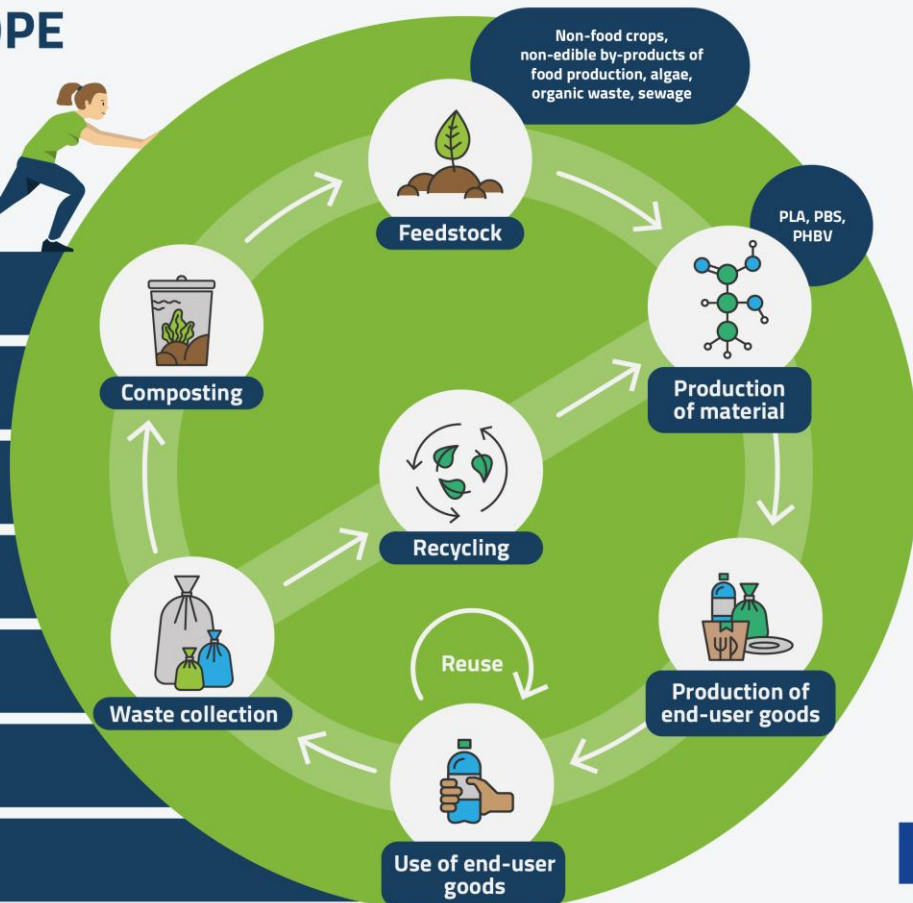
WP5 Prenormative research and field tests

WP6 Health and environmental safety

WP7 Replication, policy-making, capacity-building and upscaling

WP8 Life cycle assessment environmental and economic

WP9 Information, communication, and dissemination of results



EXPECTED RESULTS

GOAL IS FOR SOLUTION TO BE SUSTAINABLE



EXPECTED RESULTS

FOCUS

Cutlery, Soft and Rigid Packaging,

Agricultural Mulch Film, Toys and Aquatic Materials

● INNOVATIVE MATERIALS

Environmental

to foster and encourage deployment of innovative bio-based and biodegradable materials

● STAKEHOLDERS ENGAGEMENT

Social

to ensure strong commitment of producers, politicians, industrial and private consumers

● BUSINESS MODELS

Economical

to experiment with innovative business models by incorporating circularity and sustainability to maximize the value of materials along the entire value chain

● SAFETY PROTOCOLS

Environmental/Social

to ensure the safe use and end-of-life management on innovative bio-based plastics

First results

First results

Under development..

Under development..

Besides focusing on research....

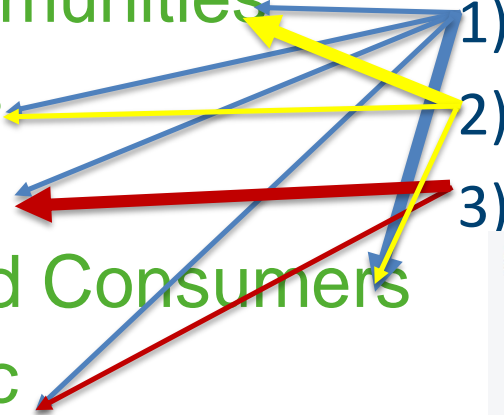


SOCIAL PROGRESS



WHO?

- Scientific communities
- Policy makers
- Municipalities
- Producers and Consumers
- General public

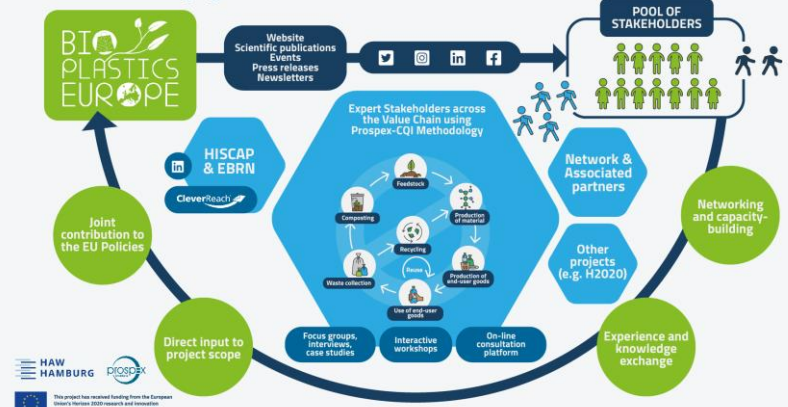


STRATEGIES

- 1) Stakeholder engagement
- 2) Network EBRN
- 3) Network HISCAP



Stakeholder Engagement BIO-PLASTICS EUROPE



NETWORKS

5 events held!
6th EBRN event:
22nd June

5 events held!
6th HISCAP event:
October 2022



BIO PLASTICS EUROPE

SUSTAINABLE SOLUTIONS FOR
BIO-BASED PLASTICS ON LAND AND SEA

**EUROPEAN BIOPLASTICS
RESEARCH NETWORK**

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 868407

LinkedIn: over 680 members
Preparing events
Foster communication
Share experience

LinkedIn HISCAP
Official 60 members
Connect cities
Preparing events
Exchange experience
Offer solutions



SUSTAINABLE SOLUTIONS FOR
BIO-BASED PLASTICS ON LAND AND SEA

**HISTORIC CITIES AGAINST
PLASTIC WASTE**

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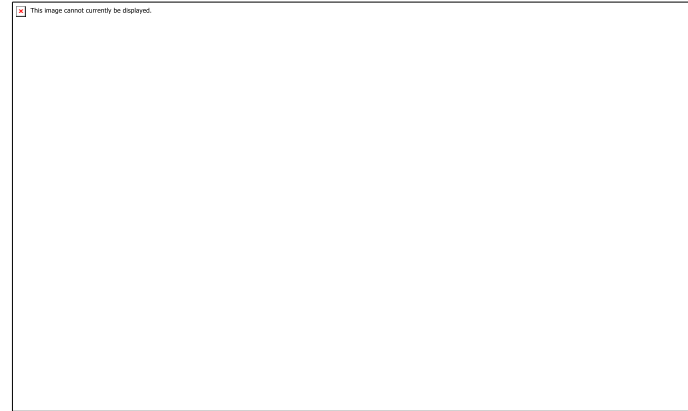
Assessing readiness of Greek municipalities to introduce bio-based materials in waste management streams

Jelena Barbir*, Alexandros Lingos, Eleonora Foschi, Zaneta Stasiskiene, Constantina Skanavis, Walter Leal Filho

CORFU 2022 - 9th International Conference on Sustainable Solid Waste Management



- Widespread use of Plastics → Environmental Pollution
- Development of plastic alternatives → Bio-based Polymers
- Bio-based plastic materials:
 - Low environmental impact
 - High production cost



- Research objective:

Assessment



Current state of solid waste management streams in Greek municipalities

Readiness to introduce innovative materials in their current waste management structure.

- Survey to Greek municipalities



- BIO-PLASTICS EUROPE → Questionnaire (Greek)
- Connection with municipalities:
 - Greek universities & NGOs
 - BIO-PLASTICS EUROPE (Historic Cities against Plastic Waste network)
- Data collection: April - May 2022
- Population and geographical distribution
- 21 municipalities in Greece - **response rate of 45%**



Results

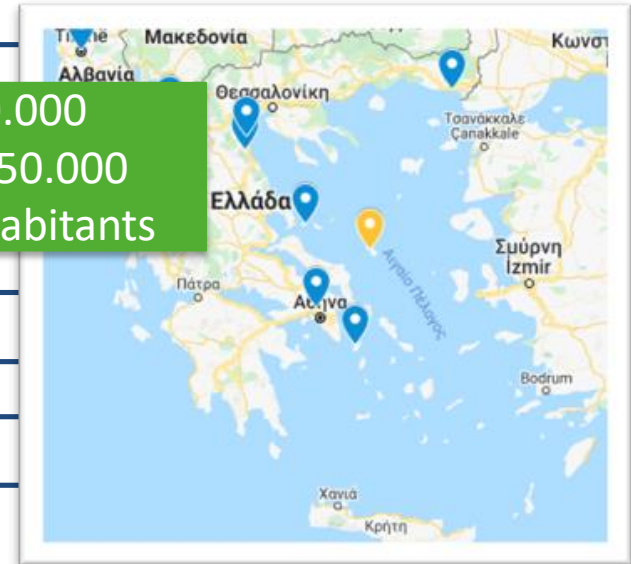
7 municipalities on islands & 14 in the mainland

4 small, 10 medium and 7 large municipalities

High numbers of tourists in small and medium-sized municipalities

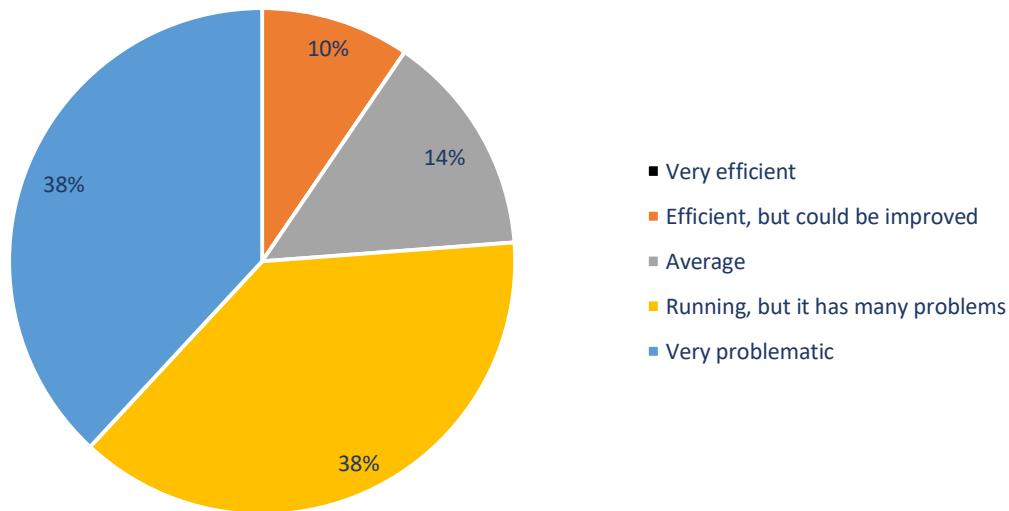
Tourist season: 4-8 months

Small 1.200-10.000
Medium 10.001-50.000
Large < 50.000 inhabitants



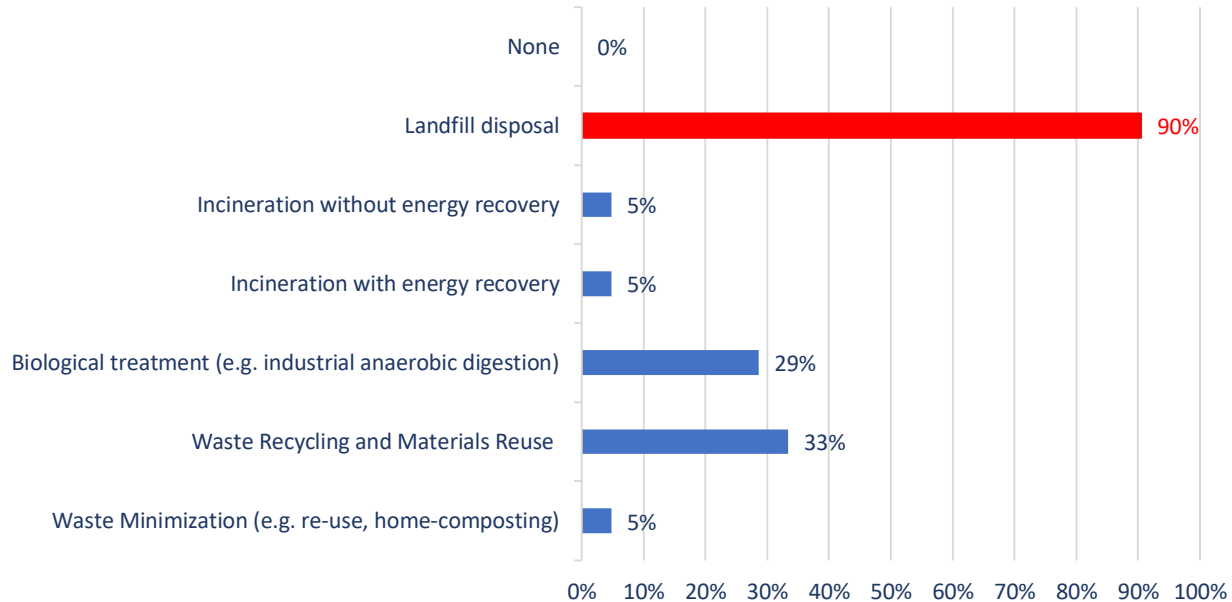
Assessing current waste management strategies

How would you define **current waste management** of the municipality?



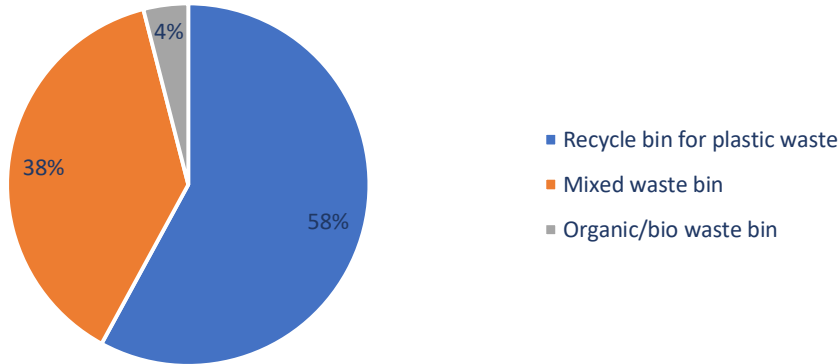
Assessing current waste management strategies

Which of the following **waste management strategies** have been incorporated in the municipality?

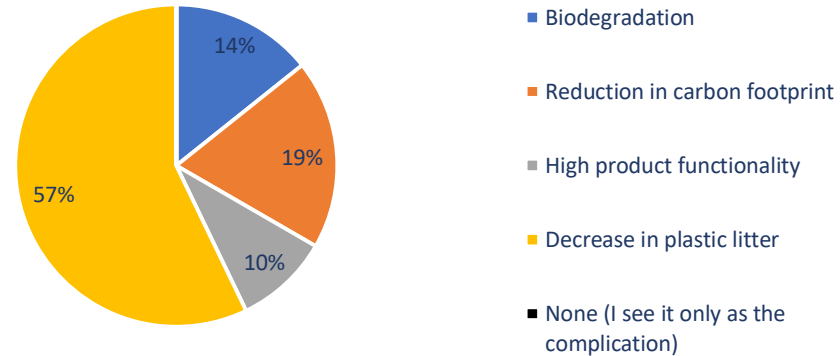


Assessing readiness of municipalities for “bioplastics” waste management

How are bioplastics collected within the municipality?



In your opinion, what are the **advantages** of encouraging wider use of bioplastics in the municipality?



- Limitation of the use of bioplastics:

Lack of user awareness

High cost

- Environmental awareness and education → Bioplastics in recycling waste streams

- Difficult to identify clear targets for 2030



- Barriers to gather the data
- Low performance in the existing waste management strategy
 - High operation of landfills **Low recycling rates**
 - Tourism
- Unsuitability or non-preference of tap water
- **What happens with Bioplastics?**
- Low readiness to introduce bio-based materials in waste management streams





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• **THANK YOU FOR YOUR ATTENTION!**



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Horizon 2020

